

# *e-Sanchar*



**MONTHLY NEWSLETTER**  
**MARCH 2025**

# WAPCOS PARTICIPATION IN GOVERNMENT OF INDIA SCHEMES

## MISSION

Use of State-of-the-art Technical Expertise, Innovativeness and Capacity Building



### Swachh Bharat Mission

- Goa
- Assam
- Gujarat



### Revamped Reforms Distribution Sector Scheme

- Kerala
- Haryana
- Chhattisgarh
- Uttar Pradesh
- Ladakh
- Arunachal Pradesh
- Nagaland



### Smart City

- Punjab
- Assam
- Himachal Pradesh

- Mizoram
- Nagaland
- Rajasthan
- Tamil Nadu
- Maharashtra
- Uttar Pradesh



### Atal Mission for Rejuvenation and Urban Transformation

- Goa
- Assam
- Haryana
- Karnataka
- Uttar Pradesh

- Bihar
- Odisha
- Kerala
- Gujarat
- Rajasthan
- Telangana
- Meghalaya
- Maharashtra
- Andhra Pradesh
- Madhya Pradesh



### Pradhan Mantri Awas Yojana

- Tripura
- Andhra Pradesh

- Gujarat
- Rajasthan
- Jharkhand
- Uttarakhand
- Chhattisgarh
- Uttar Pradesh



### Deen Dayal Upadhyaya Gram Jyoti Yojana

- Bihar
- Kerala
- Manipur
- Haryana
- Andaman & Nicobar
- Meghalaya
- Puducherry
- Chhattisgarh
- Maharashtra

- Assam
- Sikkim
- Tripura
- Mizoram
- New Delhi
- Karnataka
- Jharkhand
- Nagaland
- Tamil Nadu
- West Bengal
- Uttar Pradesh
- Himachal Pradesh
- Jammu & Kashmir
- Arunachal Pradesh



### Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- Gujarat



### Integrated Power Development Scheme

- Goa
- Odisha
- Rajasthan
- Uttar Pradesh
- Jammu & Kashmir

- Sikkim
- Nagaland
- New Delhi
- Telangana
- Tamil Nadu
- Maharashtra
- Chhattisgarh
- Andhra Pradesh
- Himachal Pradesh



### Pradhan Mantri Gram Sadak Yojana

- Bihar
- Uttarakhand

- Goa
- Assam
- Gujarat
- Rajasthan
- Jharkhand
- Madhya Pradesh



### Pradhan Mantri Krishi Sinchayee Yojana

- Gujarat

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



### Namami Gange, Integrated Ganga Conservation Mission

- Bihar
- West Bengal
- Uttarakhand
- Uttar Pradesh
- Madhya Pradesh

- Bihar
- West Bengal
- Uttarakhand
- Uttar Pradesh
- Madhya Pradesh



### Jal Jeevan Mission

- Gujarat
- Haryana
- Jharkhand
- West Bengal
- Chhattisgarh
- Andhra Pradesh
- Arunachal Pradesh

- Assam
- Punjab
- Rajasthan
- Maharashtra
- Madhya Pradesh
- Himachal Pradesh
- Jammu & Kashmir
- National PMU at Ministry of Jal Shakti



### Fisheries & Aquaculture Infrastructure Development Fund (FIDF)

- Gujarat



### SAGARMALA Programme

- Gujarat
- Maharashtra



### Pradhan Mantri Kisan Kshetra Kalyan Yojana (PMKKKY)

- Gujarat

## MESSAGE



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

Dear Readers,

It is a pleasure to present this edition of e-Sanchar, highlighting WAPCOS' steadfast commitment to delivering high-impact infrastructure solutions across India and globally.

This month, our expertise in power transmission consultancy has taken center stage, with significant progress in Nepal's Electricity Transmission Project and the SASEC Power Transmission and Distribution System Strengthening Project. These projects are vital to enhancing cross-border energy connectivity and regional development. In India, we continue to play a pivotal role in nation-building through key projects such as the construction of Eklavya Model Residential Schools (EMRS) and the National Institute of Ayurveda in Panchkula. Our engagement in educational and healthcare infrastructure underscores our commitment to holistic development.

On the international front, we have reinforced strategic partnerships in Africa. The rehabilitation of the WETA Irrigation Scheme in Ghana and the commencement of the Handeni-Korogwe-Muheza-Pangani Water Supply Project in Tanzania are milestones that reflect our expertise in sustainable water management and infrastructure development. These projects strengthen our role as a global player in engineering excellence.

Additionally, WAPCOS continues to align with national priorities such as TB Mukt Bharat, organizing health camps and awareness drives to support the Government's mission of tuberculosis eradication. Our engagement with key stakeholders, including Hon'ble Chief Ministers and Ministers in various states, further reinforces our resolve to drive impactful infrastructure projects.

As we move forward, I extend my appreciation to our teams for their dedication and excellence. Together, we will continue to deliver innovative solutions, expand our global footprint, and contribute meaningfully to national and international development.

With warm regards,

**R.K. Agrawal**

Chairman-cum-Managing Director

## MINISTRY UPDATE

### 2<sup>nd</sup> All India State Water Ministers' Conference: Charting the Path to a Water-Secure India - February 18-19, 2025



The 2<sup>nd</sup> All India State Water Ministers' Conference, organized by the Ministry of Jal Shakti, was held in Udaipur, Rajasthan, on February 18-19, 2025. Inaugurated by Hon'ble Union Minister of Jal Shakti Shri C R Paatil in the presence of Hon'ble Chief Minister of Rajasthan Shri Bhajan Lal Sharma, the conference brought together over 30 Ministers, Chief Ministers of Odisha and Tripura, Deputy Chief Ministers of Himachal Pradesh, Chhattisgarh, and Karnataka, along with more than 300 delegates. Themed "India@2047 – A Water Secure Nation," the conference built upon the outcomes of the 2023 Bhopal Conference and the subsequent Secretaries' Conference in Mahabalipuram in 2024, further shaping India's long-term water security strategy.

Discussions on the first day centered around strengthening water governance, expanding storage infrastructure, improving irrigation systems, and increasing water-use efficiency. The conference highlighted the need for Integrated Water Resources Management (IWRM) tailored to regional requirements, participatory governance at the grassroots level, and water budgeting to optimize demand and availability.



The importance of leveraging technology and innovation was emphasized, with a push for nationwide implementation of the 'Jal Sanchay Jan Bhagidari' initiative to promote community-driven water conservation efforts. A key focus was on the development and maintenance of water storage infrastructure, prioritizing Extension, Renovation, and Modernization (ERM) of existing systems alongside new projects. Delegates stressed the acceleration of river interlinking projects, the repair and restoration of smaller water bodies, and the adoption of automated reservoir operations for improved storage management.

The second day of the conference focused on three critical themes: Water Delivery Services, Demand Management and Water Use Efficiency, and Integrated River and Coastal Management. Strategic interventions under the 'Har Khet Ko Pani' initiative were discussed, with recommendations for adopting Evapotranspiration (ET)-based irrigation performance assessment, expanding the use of micro-irrigation, and promoting conjunctive use of surface, groundwater, and treated water. The establishment of a Bureau of Water Use Efficiency to drive sustainable water practices across all sectors was proposed, along with measures for volumetric water measurement, river rejuvenation, and ecological restoration. Special attention was given to ensuring potable water access in vulnerable regions through continued support for the Jal Jeevan Mission (JJM) and urban water security measures under the AMRUT scheme.

As the conference concluded, Hon'ble Union Minister Shri C R Paatil reaffirmed the government's commitment to a water-secure India and emphasized that the event was not just about addressing challenges but about finding collaborative solutions. The key recommendations put forth during the two-day deliberations will serve as a roadmap for strengthening water governance, advancing conservation efforts, and ensuring sustainable water resource management, contributing to the vision of Viksit Bharat @ 2047.



## MINISTRY UPDATE

### Hon'ble Union Minister C R Paatil Meets Nepal's Minister of Energy, Water Resources, and Irrigation - February 13, 2025

On February 13, 2025, Hon'ble Union Minister of Jal Shakti Shri C R Paatil met with the Hon'ble Minister of Energy, Water Resources, and Irrigation, Nepal - Mr. Deepak Khadka, during a courtesy call. The meeting provided a platform for meaningful discussions on key areas of mutual interest, aimed at enhancing bilateral cooperation in water resources management.

Both leaders acknowledged the significance of collaborative efforts in areas such as flood control, irrigation, and hydropower development. They discussed ways to optimize shared river systems for

sustainable development while focusing on transboundary water management, early flood warning systems, and joint hydroelectric projects. The commitment to strengthening cooperation in water conservation initiatives and infrastructure development was reiterated.

This engagement underscores the continued efforts of India and Nepal to work together on critical water resource management issues, ensuring long-term regional stability and prosperity. The meeting laid the groundwork for further technical and ministerial-level dialogues, reinforcing a shared vision for sustainable and equitable water usage.



## PROJECT UPDATE

### Powering Connectivity: WAPCOS' Role in Nepal's Electricity Transmission Project

**Project:** Consultancy Services for Construction Supervision for Transmission Lines and Substations for Electricity Transmission Project in Nepal

**Client:** Millennium Challenge Account Nepal (MCA-Nepal)

**Location:** Ratmate, Lapsiphedi, New Hetauda, New Damauli, New Butwal, India Nepal Border in Nepal

#### Scope of Work:

Overall Project Management Consultancy including Negotiation, Design Engineering, Construction Supervision, Health & Safety, preparation and submission of periodical reports, Testing and Commissioning including Defect Notification period

#### Main Components:

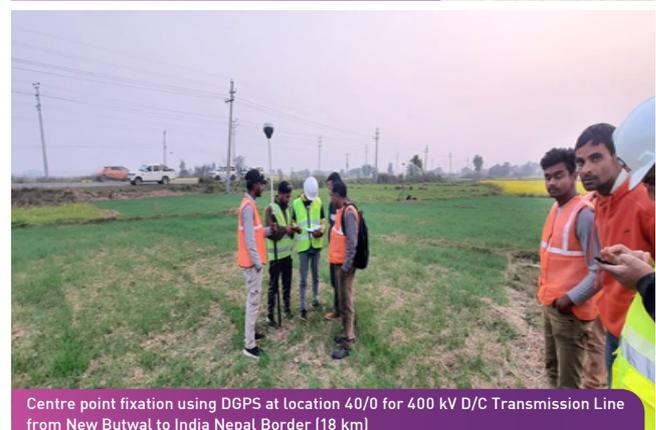
- Construction of 3 numbers of 400 kV Transmission Lines & 3 numbers of 400 kV GIS Substations
  - 400 kV D/C Transmission Line from Lapsiphedi-Ratmate-New Hetuda (117 km)
  - 400 kV D/C Transmission Line from Ratme-New Damauli (90 km)
  - 400 kV D/C Transmission Line from New Damauli - New Butwal (90 km)
  - 400/220 kV GIS Substations with power handling capacity of 1000 MVA at Ratmate, in Nuwakot district
  - 400/220 kV GIS Substations with power handling capacity of 1000 MVA at New Damauli, in Tanahu district
  - 400/220 kV GIS Substations with power handling capacity of 945 MVA at New Butwal, in Lumbini province/ district
  - 400 kV D/C Transmission Line from New Butwal to India Nepal Border (18 km)

#### Challenges Faced:

- Retendering by client for 3 nos. of Transmission line contract due to high bid price.
- Delay in Land Acquisition



Geo technical works for New-Butwal Sub-station Site



Centre point fixation using DGPS at location 40/0 for 400 kV D/C Transmission Line from New Butwal to India Nepal Border (18 km)

#### Present Status:

Ongoing with 10% (incl. amendment) of progress

## PROJECT UPDATE

### WAPCOS Leads Supervision for SASEC Power Transmission & Distribution Strengthening Across Key Locations in Nepal

**Project:** Consultancy Services for Project Supervision Consultant of SASEC: Power Transmission and Distribution System Strengthening Project in Nepal

**Client:** Nepal Electricity Authority - Nepal

**Location:** New Khimti, Barhabise, Lapsiphedi, Pokhariyal, Parwanipur, Pathlaiya, Bhaktapur, Koteswor, Lokanthali, Baneswor, Thimi in Nepal

#### Scope of Work:

Overall Project Management Consultancy including Design Engineering, Construction Supervision, Health & Safety, preparation and submission of periodical reports, Testing and Commissioning including Defect Notification period and Capacity Building of NEA staff.

#### Main Components:

- Package 1 : Development/Augmentation of Industrial Corridor
  - 132 kV D/C/ TL from Pokhariyal to Parwanipur using HTLS Conductor (20 km)
  - Upgrading of existing 132 kV D/C/ TL from Pathlaiya to Parwanipur by HTLS Conductor
  - Construction of 132/33/11 kV, 2x65 MVA S/s at Pokhariya
- Package 2 : Construction of 132/11kV substations in Kathmandu valley
  - Construction of 132kV D/C UG Cable TL from existing Bhaktapur S/S to Koteswor/ Lokanthali S/S via existing Thimi switching station (12 km)
  - Construction of 66kV D/C UG Cable TL from Koteswor/Lokanthali S/S to existing Baneswor S/S (2 km)
  - Construction of 2x45 MVA 132/11kV GIS type Thimi S/S
  - Construction of 2x45MVA 132/11kV and 2x63MVA 132/66kV GIS type Koteswor/ Lokanthali S/S



Fire fighting work in New Khimti Site



GIS Structure Erection work in New Khimti Site

- 66kV Bay extension at Baneswor S/S
- Package 3 : Expansion of existing 220 kV Khimti-1, Barabishe and Lapsephedi Substation to 400 kV voltage Level

#### Challenges Faced:

- Work started during peak of COVID-19 pandemic
- Land Slides during Monsoon period
- Delayed site handover due to Public

#### Present Status:

Ongoing with 68% of progress

## PROJECT UPDATE

### Construction of Eklavya Model Residential Schools (EMRS) in Odisha

**Client:** National Education Society for Tribal Students (NESTS), Ministry of Tribal Affairs, Govt. of India

**Location:** Various districts of Odisha

#### Scope of Work:

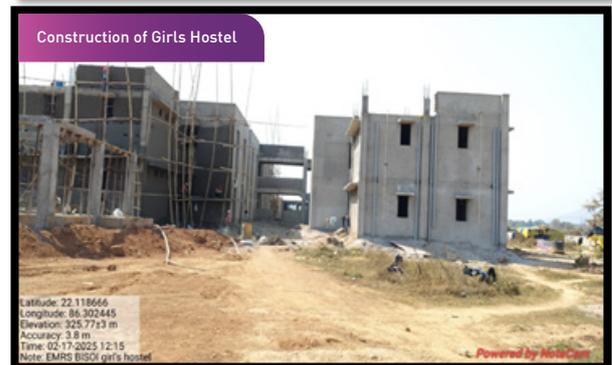
- Conducting Topographical Survey, Geotechnical Investigations
- Preparation of layout plan and detailed Architectural plans, individual building plans, detailed working drawings, Structural drawings, drawings of buildings, plumbing, sanitary, water supply, electrical services etc.
- Obtaining Statutory approvals of the drawings from concerned local bodies
- Preparation of Cost Estimate and Tender documents.
- Floating of online Tender for Engaging Contractor and evaluation of Bids
- Vetting of Design and Drawings
- Project monitoring, construction and construction supervision.
- Defect Liability Period for 1 year

#### Main Components:

The project comprises construction of Eklavya Model Residential School (EMRS) at 28 locations in Odisha. The objective of the project is to provide quality middle class and higher education with proper infrastructure to ST students in remote areas of Odisha.

The projects facilities includes:

- Approximately 15 Acres Campus
- School Building (480 Students complex equipped with 16 classrooms, 1 library, 4 laboratories etc.)
- Separate Girls & Boys Hostels each of 240 occupancies with recreation rooms
- Kitchen and Dining complex with spacious dining halls
- Staff Quarters consisting of 15 Type III units & 10 Type II Units
- Warden Residence for both Boys & Girls



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Construction of Type - II Quarters



Latitude: 22.118316  
Longitude: 86.302691  
Elevation: 338.29±8 m  
Accuracy: 5.4 m  
Time: 02-17-2025 12:07  
Note: EMRS BISOI T-2 Quarter

Powered by NoteCam

- Sports Facilities consisting of 400m/200m running track, archery court, 2 Nos. Volleyball courts, 2 Nos. Basketball courts & 1 Kho-Kho ground
- Other facilities such as Guest House, Herbal Garden and Concrete roads

#### Challenges Faced:

- Non-availability of encumbrance free lands
- Forest Issues

#### Present Status:

Different stages of constructions in 18 locations

## PROJECT UPDATE

### Construction of National Institute of Ayurveda (NIA) Panchkula, Haryana

**Client:** NIA Jaipur, Ministry of AYUSH, Govt. of India

#### Scope of Work:

The work comprises construction of 250 beds hospital along with Medical College and associated residential/non-residential structures and other ancillary works

#### Main Components:

**Built up Area: 59,767 Sq.m.**

**Project Cost: Rs. 270.54 Cr.**

#### Hospital (B+G+2)

- No. of Beds: 250 bedded (General Wards, 2 Bedded Ward, Single Bedded Ward).
- Basement Built-up Area: 11,216 sqm
- Hospital Built up Area: 14,396 sqm
- No. of Lifts: 6 No.
- 25 Consultation Rooms, Panchkarma Therapy Hall, Private Panchkarma Therapy Rooms (separate for IPD and OPD), Emergency Department, Radiology Department, Labs, Yoga Hall, Physiotherapy, Administration, 1 Major OT, 1 Shalakyia OT, 1 Labour OT, 2 Minor OT's, Pre- Op Ward, Post- Op Ward, Kitchen With Diet Centre, Laundry.

#### College Building (G+3)

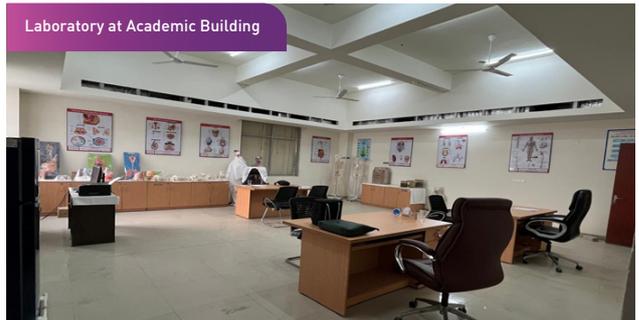
- Built-up Area: 14,982 sqm
- No. of Lifts: 4 No.
- 21 Classrooms, 1 Seminar Hall, Administration Department, 1 Library, Canteen, Offices and Workstations for Teaching and Non-Teaching Staff, 14 Laboratories, 11 Museums, 1 Examination Hall, 16 Departments.

#### Type - V Quarters (G+3)

- Built-up Area: 3,259 sqm
- No. of Units: 16 Units
- Unit Type: 3BHK +Servant Room
- Built-up Area of each Unit: 187.093 sqm
- No. of Lifts: 1 No.

#### Type - IV Quarters (G+3)

- Built-up Area: 2,229 sqm
- No. of Units: 16 Units
- Unit Type: 3BHK +Servant Room
- Built-up Area of each Unit: 122.050 sqm



Contd..

- No. of Lifts: 1 No.

#### Type III Quarters(G+3)

- Built-up Area: 3,259 sqm
- No. of Units: 32 Units
- Unit Type: 2BHK
- Built-up Area of each Unit: 72.971 sqm

#### Type II Quarters(G+3)

- Built-up Area: 3,259 sqm
- No. of Units: 32 Units
- Unit Type: 2BHK
- Built-up Area of each Unit: 64.250 sqm

#### UG Hostel(G+3) - 2 Blocks

- Built-up Area: 3,139 sqm (Both Blocks)
- No. of Rooms: 41 No.
- Occupancy: 82 Pax
- Total Occupancy: 164 Pax (82 for Boys & 82 for Girls)

#### PG Hostels (G+3) – 2 Blocks

- Built-up Area: 1,872 sqm (Both Blocks)
- No. of Rooms: 33 No.
- Occupancy: 33 Pax
- Total Occupancy: 66 Pax (33 for Boys & 33 for Girl)

#### International Hostel (G+3)

- Built-up Area: 801.15 sqm
- No. of Rooms: 28 No.
- Occupancy: 28 Pax
- Auditorium
- Built-up Area: 1,604.08 sqm
- Capacity: 700 Pax.

#### Director's Bungalow

- Built-up Area: 382.23 sqm
- No. of Unit: 1 No.



#### Present Status:

Physical Completion: 88%

Currently work is under progress

## PROJECT UPDATE

### Project Management Consultancy (PMC) for Construction of Phase - A works at JNV Cooch Behar, West Bengal

Client: Navodaya Vidyalaya Samiti (NVS), Noida

#### Scope of Work:

WAPCOS Limited is entrusted with the Project Management Consultancy for Construction of Phase - A works at JNV Cooch Behar, West Bengal by Navodaya Vidyalaya Samiti (NVS), Ministry of Education, Govt. of India. WAPCOS is rendering the detailed design engineering, and construction i.e., concept to commission of the Project.

- Conducting Topographical Survey, Geotechnical Investigations
- Preparation of layout plan and detailed Architectural plans, individual building plans, detailed working drawings, Structural drawings, drawings of buildings, plumbing, sanitary, water supply, electrical services etc.
- Obtaining Statutory approvals of the drawings from concerned local bodies
- Preparation of Cost Estimate and Tender documents.
- Floating of online Tender for Engaging Contractor and evaluation of Bids
- Vetting of Design and Drawings
- Project monitoring, construction and construction supervision.
- Defect Liability Period for 1 year

#### Main Components:

- The Total plinth area of 9199 Sq.m spread over 10 acres of land School Building (560 students).
- Boys & Girls Hostel with warden residence
- Principal Residence and Vice-Principal Residence, Staff Quarters consisting of 18 Type III units & 13 Type II Units, Kitchen and Dining halls
- Guest House
- Sentry Booth
- Herbal Garden and Concrete roads
- Sports Facilities consisting of 400m/200m running track, 2 Nos. Volleyball courts, 2 Nos. Basketball courts
- Site development works
- Physics Lab, Chemistry Lab, Biology Lab & Computer Lab



Hon'ble Prime Minister, Shri Narendra Modi laid Foundation stone on 20<sup>th</sup> February, 2024 for "Construction of Phase - A works at JNV Cooch Behar, West Bengal" virtually from Jammu and Kashmir. Hon'ble Cabinet Minister for Education and Skill Development and Entrepreneurship in the Government of India, Shri Dharmendra Pradhan also joined the event virtually.

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Girls Dormitory



Boys Dormitory



Principal and Vice-Principal Residence



Type- III Residence



Type-II Residence



Kitchen and Dining



Overall view



**Present Status:**

56% Work Completed

## THE MONTH AT A GLANCE

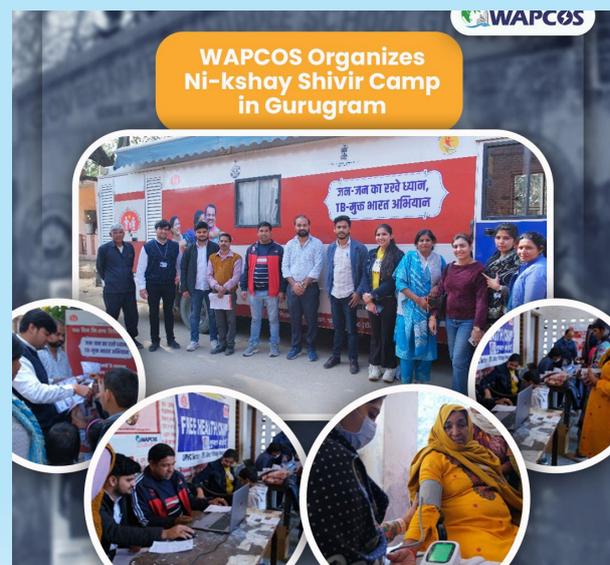
### WAPCOS Reinforces Commitment to TB Mukht Bharat Through Awareness and Health Camps

WAPCOS organized an Orientation Programme on 31<sup>st</sup> January 2025 at its Gurugram Complex to raise awareness about TB Mukht Bharat. The event was attended by Dr. Aman Sharma, Chief Executive Director (E & CM), Shri Pradeep Kumar, Sr. Executive Director (Admin & OLI), and Shri Sarbjit Singh Walia, General Manager (Admin & BP), along with other WAPCOS officials. To spread awareness about Tuberculosis, Dr. Keshav Sharma, Dy. Civil Surgeon (TB & HIV), and Dr. Arun Saini, ASMO (ART), from the Department of Health, Govt. of Haryana, were invited to share insights on TB prevention and treatment. As a mark of commitment towards TB Mukht Bharat, WAPCOS officials took the Ni-kshay pledge and distributed IEC materials to encourage awareness and action against Tuberculosis.

Furthering its mission of public health and community

welfare, WAPCOS successfully organized a Ni-kshay Shivir Camp at Government Middle School, Ghatta Village, Gurugram, on 10<sup>th</sup> February 2025. The camp provided essential health check-ups and awareness materials to promote TB prevention and overall well-being among students and the local community. The efforts continued with another Ni-kshay Shivir Camp on 13<sup>th</sup> February 2025 at the WAPCOS Premises in Gurugram, held under the 100-Day Intensified Campaign on TB Elimination. More than 200 officials and staff from Delhi/NCR participated in the health camp, reinforcing WAPCOS' commitment to eradicating TB and supporting national health initiatives.

With these impactful initiatives, WAPCOS continues to take proactive steps in the fight against tuberculosis, ensuring a healthier and more informed community while strengthening its dedication to TB Mukht Bharat.



## THE MONTH AT A GLANCE

### WAPCOS Engages with Hon'ble Chief Minister of Chhattisgarh on Key Infrastructure Projects - February 6, 2025

S hri Sanjay Gupta, Project Director, had the honor of meeting the Hon'ble Chief Minister of Chhattisgarh to provide a comprehensive update on key infrastructure and development projects. The discussion covered the progress of significant initiatives, including the New Vidhan Sabha, Bilaspur University, IIT Bhilai, RDSS, Pump Storage Projects, and the Swachh Bharat Mission. Additionally, the latest advancements in the river interlinking project

were reviewed, reinforcing WAPCOS' commitment to water resource management and sustainable development.

The Chief Minister's valuable insights and support were deeply appreciated, further strengthening WAPCOS' resolve to drive impactful infrastructure projects in the state. Through our continued efforts, we remain dedicated to enhancing the WAPCOS brand and contributing meaningfully to the nation's development.



## THE MONTH AT A GLANCE

### Strengthening Healthcare Infrastructure: WAPCOS CMD Meets Kerala's Hon'ble Health Minister - February 13, 2025

On 13<sup>th</sup> February 2025, the Chairman cum Managing Director of WAPCOS met the Hon'ble Minister for Health of Kerala, Smt. Veena George, to brief about the progress of ongoing hospital projects in the state. The discussions focused on assessing the current status of these projects, ensuring their timely execution, and exploring future opportunities for collaboration to enhance Kerala's healthcare infrastructure.

Shri K.P.S. Tyagi, General Manager, and Shri Deepak Lakhanpal, Chief Engineer, also participated in the meeting, providing valuable insights into project execution and strategic planning. The engagement reaffirmed WAPCOS' commitment to delivering high-quality healthcare infrastructure that aligns with the state's vision for improved medical facilities and enhanced public health services.



## THE MONTH AT A GLANCE

### Strengthening Global Partnerships: WAPCOS Engages with Indian High Commissioner to Ghana - February 14, 2025

S hri Sanjay Singal, Senior Executive Director, WAPCOS, met with HE Mr. Manish Gupta, High Commissioner of India to Ghana, at the Indian High Commission, South Ridge. The discussion focused on WAPCOS' business interests in Ghana, particularly in the Water, Power, and Infrastructure sectors, reinforcing the Company's

commitment to sustainable development in the region.

HE Mr. Manish Gupta acknowledged WAPCOS' strong global presence and its contributions to infrastructure excellence worldwide. The meeting reaffirmed WAPCOS' dedication to expanding its footprint in Africa through impactful projects that drive economic growth and development.



## THE MONTH AT A GLANCE

### WAPCOS Leads Rehabilitation Efforts for WETA Irrigation Scheme in Ghana - February 14, 2025

**W**APCOS is providing consulting services for the rehabilitation of the WETA Irrigation Scheme in Ghana, a project funded by the World Bank. This initiative involves detailed engineering design and construction supervision to ensure the efficient restoration of the irrigation system, enhancing agricultural productivity and water management in the region.

As part of the project, Shri Sanjay Singal, Senior Executive Director, along with Shri Chandar Singh, Deputy Chief Engineer, and client officials, conducted a site visit to assess the existing conditions and determine key requirements for rehabilitation. The visit marks a significant step in WAPCOS' commitment to delivering sustainable water management solutions and reinforcing its expertise in global infrastructure development.



## THE MONTH AT A GLANCE

### Strengthening Water Infrastructure in Tanzania: Foundation Stone Laid for Key Water Supply Project - February 25, 2025

Her Excellency, Dr. Samia Suluhu Hassan, Hon'ble President of the United Republic of Tanzania, laid the Foundation Stone for the Handeni, Korogwe, Muheza, and Pangani Towns Water Supply Project on 25<sup>th</sup> February 2025. The event was graced by Mr. Bishwadip Dey, High Commissioner of India to Tanzania. WAPCOS is honored to be associated with this critical initiative, having prepared the Detailed Project Report (DPR) and serving as the Project Management Consultant (PMC). As a PMC, WAPCOS will ensure that the project adheres to the highest quality and safety standards, contributing to its timely and successful execution.

With a project cost of USD 81.14 million, financed under the USD 500 million Line of Credit (LOC) from the Government of India through Exim Bank of India, this initiative will provide safe and reliable drinking water to approximately 850,000 residents across these towns and adjacent villages, significantly improving their quality of life.

This project is a testament to the strong Indo-Tanzanian partnership, and with the continued support of the Indian High Commission, the Ministry of Water, Tanzania, and other stakeholders, it is set to be completed as per schedule, bringing long-term water security to the region.



## TECHNOLOGY & INNOVATIONS

### CIRCULATING FLUIDIZED BED COMBUSTION (CFBC) TECHNOLOGY FOR POWER GENERATION

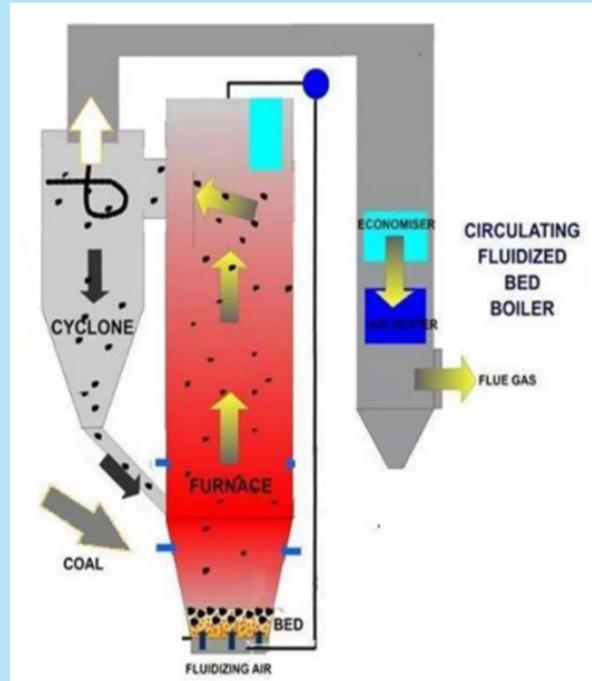
WAPCOS Limited was appointed as a Project Management Consultant (PMC) for construction of 15 MW Peat to Power Project in Rwanda. The project is financed by Rwanda Government. WAPCOS as a PMC suggested a Circulating Fluidized Bed Combustion (CFBC) technology in boiler for Power Generation because of its simplified, cost-effective and efficient design providing improved performance.

#### ROLE OF CFBC Boiler in Peat to Power Project

- CFBC Boiler installed at Peat to Power Station provides a compact and economical design
- 15 MW Peat to Power Project is the first peat based thermal power station in Rwanda

#### WHAT IS CFBC BOILER?

- The CFBC technology utilizes the fluidized bed principle in which crushed (6-12mm size) fuel and limestone are injected into the furnace or combustor. The particles are suspended in a stream of upwardly flowing air (60-70% of the total air), which enter the bottom of the furnace through air distribution nozzles. The fluidizing velocity in circulating beds ranges from 3.7 to 9m/sec. The balance of combustion air is admitted above the bottom of the furnace as secondary air.
- Since limestone is used as particle bed, control of sulfur dioxide and nitrogen oxide emission in the combustion chamber is achieved without any additional control equipment. This is one of the major advantages over conventional boilers.
- At the bottom of the boiler furnace there is a bed of inert material. Bed is where the coal or fuel spreads. Air supply is from under the bed at high pressure. This lifts the bed material and the coal particles and keeps it in suspension. The coal combustion takes place in this suspended condition. This is the Fluidized bed.
- Special design of the air nozzles at the bottom of the bed allows air flow without clogging. Primary air fans provide the preheated Fluidizing air. Secondary air fans provide pre-heated Combustion air. Nozzles



in the furnace walls at various levels distribute the Combustion air in the furnace

#### Typical Schematic Section of CFBC Boiler

##### Bed Material

To start with the bed material is sand. Some portion is lost in the ash during the operation and this has to be made-up. In coal fired boilers the ash from the coal itself will be the makeup material. When firing bio fuels with very low ash content sand will be the makeup bed material. For high Sulphur coals Limestone addition to the bed material reduces SO<sub>2</sub> emissions.

##### Circulation

Fine particles of partly burned coal, ash and bed material are carried along with the flue gases to the upper areas of the furnace and then into a cyclone. In the cyclone the heavier particles separate from the gas and falls to the hopper of the cyclone. This returns to the furnace for recirculation. Hence the name Circulating Fluidized Bed combustion. The hot gases from the cyclone pass to the heat transfer surfaces and go out of the boiler.

## Advantages of CFBC Boiler



**The CFBC boilers shall occupy less space and can be easily accommodated in the existing space covered by old boilers of these power stations.**



**Fuel cost is largest component of a power plants operating cost thereby providing the highest opportunity for fuel cost saving**



**Ability to burn wide range of design fuels**



**Adopting CFBC boilers shall effectively decrease harmful emissions under the same fuel sources**



**Dry process requiring no water**

## Implementation of Technology

WAPCOS has been involved in DPR/Implementation Stages of CFBC boilers in the following projects:

- Renovation and Modernization of Bulawayo Small Thermal power station (STPS) in Zimbabwe
- Renovation and Modernization of Munyati Small Thermal power station (STPS) in Zimbabwe
- Renovation and Modernization of Harare Small Thermal power station (STPS) in Zimbabwe
- 15 MW Peat to Power Project in Rwanda



Power plant under construction,  
Rwanda



Power plant commissioned,  
Rwanda



Tanmay Shrivastava  
Additional Chief Engineer

## EMPLOYEES OF THE MONTH

WAPCOS recognizes employee's efforts for exemplary contribution in achievement of Turnover, New Business and Payment Realization for the Month of February, 2025

### CONSULTANCY SEGMENT

#### Turnover



**Shri Himanshu Bhutiyan,**  
Dy. Chief Engineer,  
T&D unit, Power Division

#### New Business



**Shri Gokul Prajapati,**  
Deputy Chief Engineer (Civil),  
PH&IW

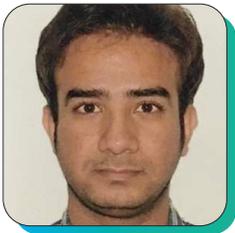
#### Payment Realization



**Shri Abinash Kumar Sahu,**  
Engineer,  
T&D Unit Power Division

### CONSTRUCTION SEGMENT

#### Turnover



**Shri Charush,**  
Additional Chief Engineer,  
CMU-II

#### New Business



**Shri Jigar Damor,**  
Engineer,  
SSP Ahmedabad

#### Payment Realization



**Mohd. Farooq Khan,**  
Additional Chief Engineer,  
CMU-II

### Exceptional Category For Organizing Parliamentary Standing Committee



**Shri Ashish Tyagi,**  
Head (OL),  
Hindi Section



**Shri Gaurav Raghav,**  
Sr. Hindi Translator,  
Hindi Section

# WAPCOS OPERATIONS ABROAD: FOOTPRINTS IN OVER 75 COUNTRIES



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