

e-Sanchar



MONTHLY NEWSLETTER

JANUARY 2025

Special New Year's Edition



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



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



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 Kshetra Kalyan Yojana (PMKKKY)

- Gujarat

MESSAGE



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

Dear Readers,

Wishing a Happy New Year 2025, which holds more promises to unfold for a better tomorrow!

I am delighted to present to you the January 2025 edition of e-Sanchar, WAPCOS' monthly newsletter that highlights our key achievements, ongoing projects, and significant contributions to India's development and global partnerships.

The past month has been an inspiring journey for WAPCOS, as we continued to play a pivotal role in implementing transformative projects in the water, power, and infrastructure sectors. From achieving milestones in the Punatsangchu-II Hydroelectric Project in Bhutan to advancing Angola's power infrastructure and engaging with global leaders in Mauritius, Rwanda, and Liberia, our efforts resonate with the vision of "Vasudhaiva Kutumbakam" – the world is one family.

In December, we also witnessed remarkable recognitions at the Water Transversality Global Awards 2024, where WAPCOS was honored for its leadership in rainwater harvesting and groundwater management. These accolades reaffirm our commitment to sustainable development and reinforce our position as a trusted partner in addressing water and environmental challenges globally.

Our domestic projects continue to drive impact at the grassroots level. From constructing healthcare and public utility facilities in Kerala to supporting rural development initiatives in Andhra Pradesh, WAPCOS remains dedicated to transforming India's infrastructure and delivering quality solutions to meet the aspirations of our clients and stakeholders.

As we move forward, WAPCOS remains steadfast in its mission of excellence, innovation, and sustainability. Our achievements would not be possible without the unwavering dedication of our teams, the trust of our clients, and the guidance of our stakeholders.

I invite you to explore this edition of e-Sanchar to learn more about our projects, achievements, and the vision that drives us forward. Together, let us continue to shape a brighter and more sustainable future.

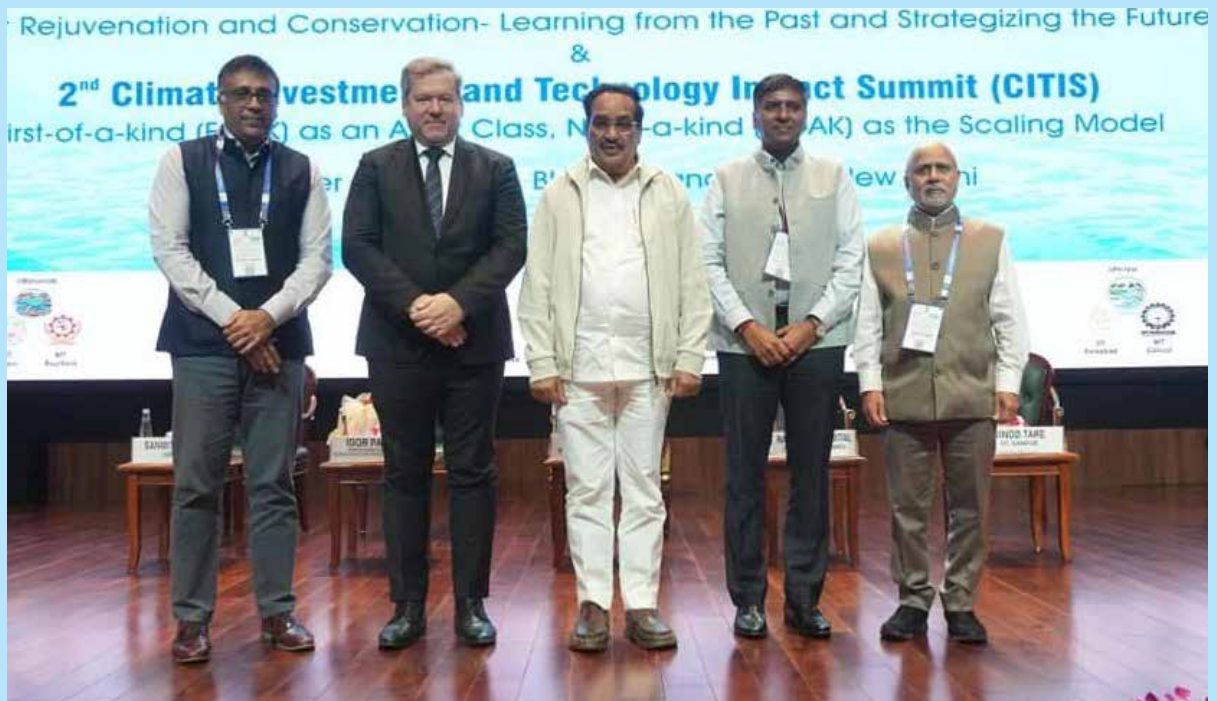
Warm regards,

R.K. Agrawal

CMD, WAPCOS

MINISTRY UPDATE

Inauguration of the 9th India Water Impact Summit (IWIS) and the 2nd Climate Investment and Technology Impact Summit (CITIS) Conference - December 4, 2024



On the occasion of the 9th India Water Impact Summit (IWIS) and the 2nd Climate Investment and Technology Impact Summit (CITIS) Conference, Hon'ble Union Minister for Jal Shakti, Shri C.R. Paatil inaugurated the event, emphasizing the importance of sustainable water management and eco-friendly urban planning.

This summit and conference provided a platform to drive meaningful discussions and action towards achieving a

Water Secured India. The event focused on integrating water sustainability into urban planning, fostering collaboration between government agencies, industry leaders, and stakeholders to create resilient, water-efficient urban spaces.

The initiative underscored India's commitment to tackling water scarcity challenges and promoting environmental sustainability through innovative solutions and coordinated efforts across sectors.



MINISTRY UPDATE

Advancing Sustainability: C.R. Paatil Reviews GOBARdhan Initiative Progress - December 4, 2024

Hon'ble Union Minister for Jal Shakti, Shri C.R. Paatil held a review meeting on December 4, 2024, to assess the progress of the GOBARdhan Initiative, aimed at converting organic waste into valuable resources like Compressed Bio-Gas (CBG) and organic manure. With the Union Budget 2023-24 setting a target of 200 new CBG plants, significant progress has been made, with 37 plants currently operational and 133 more in development. The number of functional CBG plants has increased dramatically, from 19 in 2020 to 125 today.

Shri Paatil expressed his appreciation for the collaborative efforts of the Ministries involved and emphasized the need to address challenges related to feedstock, site identification, and financial sustainability. He encouraged the use of the carbon credit system to generate revenue

for the sector and highlighted the importance of involving financial institutions in the issuance of new Letters of Intent for CBG operators. He also suggested expanding farmer education programs near CBG plants to ensure broader adoption.

The meeting underscored the importance of policy enablers like the Sustainable Alternative Towards Affordable Transportation (SATAT) Scheme and support for biomass aggregation machinery. Various Ministries reported on their initiatives, including financial assistance for pipeline infrastructure and incentives for organic fertilizers. With these efforts, GOBARdhan is poised to play a key role in India's sustainability goals, contributing to a circular economy while advancing the country's net-zero ambitions.



MINISTRY UPDATE

Progress and Initiatives in Ganga Conservation: Key Highlights from the 13th ETF Meeting - December 10, 2024



The 13th meeting of the Empowered Task Force (ETF) on Ganga conservation, chaired by Shri C.R. Paatil, reviewed key initiatives under the Namami Gange Programme. Notable developments include the reintroduction of 1,428 gharials and 1,899 turtles into the Ganga, boosting water quality. Wetland surveys in Uttar Pradesh and Bihar, along with the establishment of a monitoring framework for Jharkhand's Udhwa Lake Bird Sanctuary, were discussed.

The meeting also focused on afforestation efforts with a target of 1,34,104 hectares of plantation to strengthen the Ganga basin's ecology. The Ganga Knowledge Centre's innovations, including AI-enabled tools and high-resolution mapping, were highlighted. Additionally, the launch of new knowledge products and the preparation of 60 District Ganga Plans marked significant steps toward the river's restoration and preservation.



PROJECT UPDATE

Construction of SDF Building at KINFRA Industrial Park, Mattanur, Kannur, Kerala

Client: Kerala Industrial Infrastructure Development Corporation

Location: Mattanur, Kannur, Kerala

Scope of Work:

- Construction of multi Storied building (G+2) including all services like plumbing, Electrical, Fire Fighting, Elevators etc.

Main Components:

- G+2 building
- Transformer
- Fire Fighting
- Diesel Generator
- Plumbing
- Electrical
- Elevators

Challenges faced:

- Heavy rain, earth filling, material shortage

Present Status:

Completed



PROJECT UPDATE

Construction of New Building for State Public Health and Clinical Laboratory, Trivandrum, Kerala

Client: National Health Mission

Location: Trivandrum

Scope of Work:

- Construction of New Building.

Main Components:

- New SPHCL building Construction

Challenges Faced:

- Descoping some components for inclusion of necessary works as per client requirements.



Present Status:

Work Completed and
Handed Over to Client



PROJECT UPDATE

Regional Vaccine Store, Trivandrum, Kerala

Client: National Health Mission

Location: Trivandrum

Scope of work:

- Vaccine Store Construction

Challenges Faced

- Descoping some components for inclusion of necessary works as per client requirements.



Present Status:

Work Completed and Handed Over to Client



Contd..

PROJECT UPDATE

Construction of New OP block at PHC Kunnathuka

Client: National Health Mission**Location:** Trivandrum**Scope of Work:**

- Construction of New Building.

Challenges Faced:

- Descoping some components for inclusion of necessary works as per client requirements.

**Present Status:**

Work Completed and Handed Over to Client

PROJECT UPDATE

Strengthening of Labour Room & Emergency OT as per LaQshya Standards at DH ALuva, Kerala

Client: National Health Mission

Location: Ernakulam

Scope of work:

- Implementation of LaQshya work at DH ALuva

Challenges Faced

- Revised Estimate preparation as per the Hospital Requirement.



Present Status:

Work Completed and Handed Over to Client

PROJECT UPDATE

Providing Project Management Consultancy (PMC) including Third Party Quality Control Agency (TPQCA) to execute the works of the Multi Purpose Facility Centers (MPFCs) across the state of Andhra Pradesh for Agricultural Marketing Department.

Client: Agricultural Marketing Department

Location: Andhra Pradesh

Scope of Work:

- To collect and review the fortnightly progress of works from agencies
- To monitor and ensure the works strictly as per the work schedule
- To prepare QA/QC plan
- To intimate the prior flagging of bottlenecks and timely interventions & actions for achieving the desired quality of work within the stipulated time period.
- To carry out testing at random as per codal rules for all the materials used in construction work independently in an accredited NABL Laboratory or in a nearby Engineering college.
- To ensure the construction works are in accordance with the technical specifications, management plan and other stipulation of construction contract documents etc. If any additional work arises, the same should be approved from department.
- To conduct the special tests of materials, sand, cement, steel and bricks etc, before commence of the work



- To carry out core cutting of 3 samples per site.
- To supervise and check the operations, quality control and quantity of the works carried out under contract to be in conformity with relevant IS codes and specifications in the sender document.

PROJECT UPDATE



Main Components:

- Earth Excavation & Pile Foundation
- Footings
- Pedestals
- Basement
- PEB or Truss Erection
- Super Structure
- Finishing & Completion

Challenges Faced:

- Lack of proper access to the construction site.
- Some of the godowns sites are allotted interior areas, near ponds, hilly areas and there is no Road connectivity this is the major cause in delay of construction of godowns .
- Lack of electricity facility at the construction sites.
- Availability of water away from the Construction area.
- Objection by the local public after the commencement of construction, obstructing construction at certain places
- PEB or Truss manufacturing unit in godown construction is far away from the construction area and lack of resources required for erection.
- Due to lack of proper road facility to the construction site, difficulties arise in moving construction material.



Present Status:

On Going Project

THE MONTH AT A GLANCE

Strengthening India-Rwanda Cooperation in Agriculture and Development - December 2, 2024

On December 2, 2024, Sh. Mridu Pawan Das, High Commissioner of India to Rwanda, paid a visit to His Excellency Dr. Cyubahiro Marc Bagabe, Hon'ble Minister of Agriculture and Animal Resources (MINAGRI), Government of Rwanda. The meeting was held in the presence of distinguished dignitaries including Sh. Vinod Kumar, Head of Chancery of the High Commission of India; Dr. Alexandre Rutikanga, Chief Technical Advisor to the Minister, MINAGRI; and Dr. Florence Uwamahoro, Deputy Director General of the Rwanda Agriculture and Animal Resources Development Board (RAB).

Representing WAPCOS, Sh. Gurnam Singh Sodhi, Country Manager, highlighted the Company's credentials and contributions to development in Rwanda. The Hon'ble Minister reviewed the progress of the Export Targeted Modern Irrigated Agriculture Projects, expressing his commitment to their timely completion and extending support for upcoming initiatives. WAPCOS also presented the Coffee Table Book commemorating 55 years of its achievements to the Hon'ble Minister, who conveyed his best wishes to the organization for continued success.



THE MONTH AT A GLANCE

Advancing Angola's Power Infrastructure: WAPCOS Leads Technical Adoption Meeting - December 4-6, 2024

From December 4th to 6th, 2024, WAPCOS serving as the Project Management Consultant for the World Bank-funded project focused on the rehabilitation and upgrade of the 220/60 kV Cuito and Quileva substations in Angola, a Technical Adoption Meeting was held in Luanda, led by WAPCOS' Chief Engineer (T&D), Mr. M. Manoj Kumar, along with key officials Mr. Pooran Singh, Mr. Prabhat Kumar, and Mr. Santosh Gautam.

The meeting brought together prominent representatives from Angola's Ministry of Energy and Water (MINEA), the World Bank, RNT, and ENDE. WAPCOS presented the preliminary designs for the substations and the 60 kV Quileva-Cabras transmission line, marking a major milestone in Angola's power infrastructure development. This collaborative effort underscores WAPCOS' continued commitment to driving impactful global projects in the power sector.



THE MONTH AT A GLANCE

Enhancing Ties with Mauritius: WAPCOS Discusses Business Interests - December 5, 2024

On December 5, 2024, Ms. Shailja Chaturvedi, International Business Manager at WAPCOS, had the honor of meeting His Excellency Mr. Vimarsh Aryan, Deputy High Commissioner/Acting High Commissioner of India to Mauritius, at the Indian High Commission in Port Louis. During the meeting, Ms. Chaturvedi outlined WAPCOS' business interests in Mauritius, focusing on the Company's expertise in the Water, Power, and Infrastructure sectors.

His Excellency praised WAPCOS' significant contributions and its strong global presence in these vital areas. The meeting reinforced WAPCOS' commitment to fostering impactful collaborations and driving sustainable development in Mauritius and beyond, further enhancing India's ties with the island nation.



THE MONTH AT A GLANCE

Building Agricultural Partnerships: WAPCOS Engages with Liberia's Leadership - December 5, 2024

On December 5, 2024, Shri KVM Bhaskara Rao, Additional Chief Engineer (Civil) at WAPCOS, had the privilege of meeting Dr. Alexander Nuetah, Hon'ble Minister of Agriculture, and Hon'ble Solomon Hedd-Williams, Deputy Minister for Technical Services, Republic of Liberia. During the visit, Shri Rao provided an overview of WAPCOS' ongoing projects in Liberia and highlighted the Company's extensive expertise in the agricultural sector across various countries.



The discussions also centered around upcoming projects of mutual interest in agriculture. The Hon'ble Minister expressed satisfaction with the proposed initiatives and assured full support for future collaborations. This meeting underscores WAPCOS' commitment to fostering partnerships and driving sustainable agricultural development in Liberia and beyond.

THE MONTH AT A GLANCE

WAPCOS Contributes to Global Dialogue on Water-Energy Nexus - December 5-6, 2024

At the International Conference on Deciphering Transversality of the Water-Energy Nexus, Mr. Amitabh Tripathi, Sr. Executive Director of WAPCOS, participated as a panelist in the session on Renewable Energy, Green Hydrogen, and its Impact on Water and Environment. During the session, Mr. Tripathi shared WAPCOS' extensive expertise, offering valuable insights into the interconnected challenges of the Water-Energy-Environment Nexus. His contributions sparked a vibrant exchange of ideas with global thought leaders, further establishing WAPCOS' role in shaping sustainable solutions to pressing global challenges.



THE MONTH AT A GLANCE

WAPCOS Honored at Water Transversality Global Awards 2024 - December 6, 2024

WAPCOS was proud to receive the prestigious “Leading PSU - Rainwater Harvesting and Groundwater Management” award and the “Special Recognition Award - Leading Organisation in Development Sector” at the Water Transversality Global Awards and Conclave 2024, held in New Delhi on December 6, 2024. These distinguished awards were presented by Shri Raj Bhushan Choudhary, Hon’ble Minister of State for Jal Shakti, Government of India. Shri Amitabh Tripathi, Sr. Executive Director of WAPCOS, received the awards on behalf of the Company.

The recognition highlights WAPCOS’ exemplary

contributions to sustainable water management, particularly in the areas of rainwater harvesting and groundwater management. These initiatives play a crucial role in addressing the growing challenges of water scarcity and environmental sustainability. The awards further underscore WAPCOS’ leadership in the development sector, acknowledging its dedication to driving impactful solutions for water conservation and the broader environment.

WAPCOS remains committed to advancing its mission of promoting sustainable development through innovative water management practices, contributing to national and global efforts towards water security and climate resilience.



THE MONTH AT A GLANCE

WAPCOS Celebrates Milestone at Punatsangchu-II Hydroelectric Project in Bhutan - December 17, 2024

A proud moment for WAPCOS unfolded on December 17, 2024, when, coinciding with Bhutan's 117th National Day, the Punatsangchu-II Hydroelectric Project (1020 MW) achieved grid synchronization of its first two units. This important milestone in the project, a key symbol of India-Bhutan cooperation, was graced by Hon'ble Minister Lyonpo Gem Tshering, Minister for Energy and Natural Resources, Royal Government of Bhutan and other key officials, marking a significant achievement in bilateral collaboration between India & Bhutan

WAPCOS, serving as the design consultant, has worked

with the Central Water Commission (CWC) and the Central Electricity Authority (CEA) to support the success of this mega project. This accomplishment underscores WAPCOS' role in shaping vital infrastructure projects that contribute to sustainable energy development.

A special recognition has to be given to Mr. Khademul Islam, Project Director, and the entire WAPCOS team for their dedication and efforts in ensuring the timely success of this major project, which will play a crucial role in enhancing Bhutan's energy capacity and bilateral ties with India.



THE MONTH AT A GLANCE

Empowering Agriculture in Rwanda: Ministerial Visit to ETI Project Sites - December 17, 2024

On December 17, 2024, Hon'ble Dr. Mark Cyubahiro Bagabe, Minister of Agriculture and Animal Resources (MINAGRI), visited the project sites of Mahama Lot-1 and Lot-2, key components of the Export Targeted Modern Irrigated Agricultural (ETI) Projects in Rwanda. WAPCOS is honored to serve as the Project Management Consultant for this transformative initiative aimed at enhancing Rwanda's agricultural capacity and sustainability.

The visit was accompanied by notable dignitaries, including the Hon'ble Governor of the Eastern Province, Mayor and Deputy Mayor of Kirehe District,

Deputy Director General of the Rwanda Agriculture Board (RAB), and officials from the Rwanda Defence Forces. During the site visit, Mr. Gurnam Singh Sodhi, WAPCOS Country Manager, provided an in-depth presentation on the project status and the ongoing works at the site.

The Hon'ble Minister commended the progress made and expressed his confidence in the project's successful completion, assuring the full support of the Government of Rwanda. This initiative marks a significant step toward enhancing the agricultural landscape of Rwanda, and WAPCOS is proud to contribute to this important development.



THE MONTH AT A GLANCE

Strengthening Ties with Uganda: WAPCOS Engages with Indian High Commissioner - December 19, 2024

On December 19, 2024, Mr. Sanjay Singal, Senior Executive Director of WAPCOS, along with Mr. Akash Deep, Resident Dy. Chief Engineer, and Mr. Tara Rai, Expert, had the privilege of meeting H.E. Mr. Upender Singh Rawat, High Commissioner of India to Uganda, at the Indian High Commission in Kampala.

During the meeting, Mr. Singal highlighted WAPCOS' business interests in Uganda, focusing on the Company's extensive expertise in the water, irrigation, power,

and infrastructure sectors. His Excellency commended WAPCOS' remarkable contributions to Uganda over the past decade and praised its strong global presence in these critical areas.

This fruitful discussion underscores WAPCOS' commitment to fostering impactful collaborations and driving sustainable development worldwide, particularly in Uganda, where the Company continues to play a pivotal role in infrastructure development and service delivery.



THE MONTH AT A GLANCE

WAPCOS Wins the Gold Award at IEI Industry Excellence Awards 2024 - December 20, 2024

WAPCOS is proud to have been honored with the prestigious Gold Award at the IEI Industry Excellence Awards 2024, presented by The Institute of Engineers (India) in the category of Engineering Services and Consultancy. This esteemed recognition underscores WAPCOS' unwavering commitment to delivering outstanding performance and maintaining the highest standards of business excellence across its projects and services.

Shri D.K. Mohanty, General Manager, and Ms. Mousumi Chatterjee, Chief Engineer, represented WAPCOS on the global stage and received the award

on behalf of the Company. The recognition highlights the significant contributions WAPCOS has made to the engineering and consultancy sectors, reflecting its leadership in delivering innovative and impactful solutions.

In addition to the award, WAPCOS actively participated in a panel discussion at the event, where experts discussed the theme "How Digital Transformation and Data Intelligence are helping Industries' Growth?". This session showcased WAPCOS' insights and leadership in driving digital innovation and its role in shaping the future of industries through advanced technologies.



THE MONTH AT A GLANCE

WAPCOS Drives Agricultural Growth with Kabuyanda Dam and Irrigation Scheme - December 20, 2024

WAPCOS is proud to be providing Project Management Consultancy (PMC) services for the Kabuyanda Dam and Irrigation Scheme, a transformative project that spans a total command area of 3,300 hectares. Funded by the World Bank, this project is set to become one of Uganda's largest and most innovative pressurized irrigation systems, designed to enhance agricultural productivity and promote sustainable water management.

On a site visit, Mr. Sanjay Singal, Senior Executive Director

of WAPCOS, along with the expert site team, conducted productive meetings with the WAPCOS site team and contractors. They also inspected the materials on-site, ensuring that the project is adhering to the highest standards of quality and making steady progress. The Kabuyanda project is a key milestone in WAPCOS' ongoing efforts to foster sustainable agricultural development in Uganda, with a focus on improving irrigation efficiency and water resource management for local farmers.



THE MONTH AT A GLANCE

TOLIC Meeting Held at WAPCOS Office: Fostering Official Language Implementation - December 20, 2024

On December 20, 2024, the Town Official Language Implementation Committee (TOLIC) meeting was held at the WAPCOS office premises in Gurugram, under the chairmanship of Mr. Rajni Kant Agrawal, Chairman & Managing Director of WAPCOS Limited, and Chairman of TOLIC, Gurugram.

The meeting was attended by prominent officials, including Mr. Kumar Pal Sharma, Deputy Director, Department of Official Language, Ministry of Home Affairs; Mr. Rahul Mithal, Chairman & Managing Director of RITES Limited; Dr. Yatindra Dwivedi, Director (Personnel) at Power Grid Corporation

of India Limited; Dr. Maitreyee Mohanty, Director of Food Safety Institute; along with senior officials and Rajbhasha officers from 45 member offices of NARAKAS, Gurugram.

The event's coordination was managed by Mr. Pradeep Kumar, Senior Executive Director (Administration & Official Language) and Member Secretary of NARAKAS. The meeting served as an important platform for discussing the effective implementation of the official language policy across the region, contributing to the broader goal of promoting Hindi as an official language in government offices and public sector organizations.



THE MONTH AT A GLANCE

WAPCOS Recognized with Platinum Award for Corporate Governance at PSE Excellence Awards 2024 - December 21, 2024

WAPCOS was honored with the prestigious Platinum Winner Award in the Corporate Governance category at the 14th PSE Excellence Awards 2024, presented by the Indian Chamber of Commerce. This recognition served as a testament to the Company's steadfast commitment to upholding the highest standards of corporate governance, transparency, and ethical business practices.

The award was graciously received by Mr. Sumir Chawla, Head of Corporate Communications, and Mr. Shailendra Vishwakarma, Company Secretary, on behalf of WAPCOS. This accolade reflected WAPCOS' continuous efforts to foster trust and accountability in its operations, underscoring the company's dedication to maintaining a culture of integrity and excellence in all its corporate endeavors.



THE MONTH AT A GLANCE

Empowering Sustainable Sanitation in Ethiopia: WAPCOS Leads the Way - December 24, 2024

WAPCOS has been entrusted with the Design Review and Construction Supervision of Fecal Sludge Treatment Plants in Bishoftu, Asella, and Shashamane towns, Ethiopia, a vital initiative funded by the World Bank. This project aims to enhance sanitation infrastructure, contributing to a cleaner and healthier environment. Led by Chief Engineer Mr. Manish Kumar, the WAPCOS

team actively supervised excavation works in Asella and surveying activities in Bishoftu, working in close collaboration with officials from the Ministry of Water & Energy, as well as the client, contractor, and local town offices. Together, they are driving the successful implementation of these projects, playing a crucial role in shaping a more sustainable future for sanitation in Ethiopia.



THE MONTH AT A GLANCE

Empowering Agricultural Development in Rwanda: Training Initiatives Under Government-Funded Project - December 24, 2024

The Government of India, through Exim Bank, is funding the Export Targeted Agriculture Projects in Rwanda, with WAPCOS serving as the project management consultant. A key aspect of this project involves providing specialized training to 150 professionals across various fields through both long-term and short-term courses. The first batch of students will begin their training on January 1, 2025, at the Central Institute of Agriculture Engineering in Bhopal. The one-

month course will focus on modern water control techniques and technologies, which are essential for improving agricultural productivity in Rwanda. On the occasion, the High Commissioner of India to Rwanda, Mr. Mridu Pawan Das, along with Second Secretary Mr. Abhilash, met the students and extended their best wishes for the course and their stay in India, reinforcing the strong partnership between India and Rwanda in advancing agricultural knowledge and skills.



TECHNOLOGY AND INNOVATION

Pre-Cast Overhead Tanks: Revolutionizing Water Supply Infrastructure

The Jal Jeevan Mission (JJM) was launched in Madhya Pradesh to provide safe and adequate drinking water supply to 1.11 crore Households spread across total 51,147 numbers of villages. Setting up the benchmark, state has already installed 61.14 lakhs of Household Connections and made more than 17,000 villages equipped with 100% tap water connection. Creating a landmark, Burhanpur district of Madhya Pradesh became India's first "Har Ghar Jal" district by achieving fastest 100 % tap water connection.

In this journey WAPCOS has marked its imprints by contributing as Supervision and Quality Control (SQC) Agency in Jal Jeevan Mission Scheme. Among all the projects, "Rajghat Dam Multi Village Drinking Water Supply Scheme (MVSS) of Guna District" is one the largest project of Madhya Pradesh which is being supervised by WAPCOS. Salient features of this project are presented, as follows :

Salient Features of the Project	
Number of Villages	1573
Source	Rajghat Dam Near Kunwar-pur Village (Chanderi)
Population Covered	More than 18 lakhs
Capacity of Intake	255.82 MLD
Capacity of WTP	189.29 MLD
Water Supply Demand	@ 55 LPCD and Other demands @ 80 LPCD at pumping of 20 Hr per day
Length of Network	RWPM- 24.8 Km CWPM- 338 Km CWGM- 2634 Km Distribution- 3899 Km
No. of Household Connections	110643 (Including Bulk Connections)
No. of Elevated Service Reservoir	624

Need of Pre-cast Overhead Tanks:

The scheme is spread in more 11,000 sq km area across 1573 villages. As per the serving population the sizes of the most of the overhead tanks are kept between 100kl to 200kl. It is challenging task to arrange on-site construction resources in wider extent of area for smaller sizes of Over Head Tanks (OHTs). The installation of centering and shuttering, waiting up to minimum curing period and strength development leads to engagement of multiple resources for single Over Head Tanks (OHTs). On an average it takes 4 months in construction of one Over Head Tank by conventional method. It reflects Cost and Time Overrun in the project which further affects other components of the project. With implementation of method of pre-cast installation, this time is reduced to 1 month, which impact positively in increasing the project efficiency on larger scale.

TECHNOLOGY AND INNOVATION

Utility of Pre-cast Overhead Tanks:

- Less time consuming.
- Precast components will be produced in controlled environments, ensuring consistent quality and finish.
- Prefabrication reduces on site activities, minimizing disruptions to surrounding areas and public.
- The tank at the top slab is fabricated on-site and made up of zinc aluminium which is also called as Zinalume Tanks. Due to light weight, they are easy to erect.

Cost Parameters of Pre-cast Overhead Tanks:

As per Schedules of Rate (SOR)-2021 of Directorate of Urban Administration and Development (UADD) the cost of construction of 100 KL, 150KL and 200 KL Overhead Tank by conventional method is Rs. 14.50 Lakh, Rs. 15.72 Lakh and Rs. 18.43 Lakh respectively. In this project it has been observed that the cost of Pre-fabricated Overhead Tank is approximately 40% more than the cost of conventional construction method.

Specification of Pre-cast Overhead Tanks:

- Minimum grade of concrete for precast members shall be M40.
- Maximum permitted capacity is 200 KL and staging height should not be more than 20 meters subjecte to changes based on wind speed and seismic exposure of the area.
- Reinforcement bars shall be of high yield strength deformed bars Fe 500 TMT confirming to IS1786.
- Strength of precast element at the time of demolding shall be a minimum 15 MPa.
- Connection between precast elements can be with coupler filled with non-shrink grout or with bolted connection having following strength

Compressive strength at 6 hrs.	15 N/mm ²
Compressive strength at 24 hrs.	30 N/mm ²
Compressive strength at 28 days	65 N/mm ²

Step by Step Construction Methodology:

Step-1: Getting the details of Overhead Tank (Capacity-200kl and Staging-20meter), SBC, Design of Foundation, Design Mix (Min M-40), Component wise detailed Design and Drawing, Quality Assurance Plan (QAP) etc.

TECHNOLOGY AND INNOVATION

Step-2: Get start casting of precast members as per Design and Drawings. Ensure proper placement of groutec coupler with reinforcement bars (ensure threading has been done in reinforcement bars for fixing of the coupler). Date of casting, numbering of unit and capacity should be clearly written by paint on the casted members.



Fig: Representing Step by Step Development of Pre-Cast Overhead Tanks.

Step-3: Construction of Foundation of Overhead Tank will be done by soil excavation then construction of isolated footing (pedestal) joined by plinth beams (Generally 4 Nos.). Reinforcement of length of 260 mm is left from the finished top surface of the plinth beam (called pedestal Rebar).



Step-4: Installing H-Frame is next step in this process. With the help of crane, the H-frame is placed on the pedestal in the way the rebars are fitted with coupler of the H-Frame. There is gap of 20 mm left between the pedestal and H-Frame which is filled by Grout (65 N/mm²). The grout helps to align the component vertically and attain immediate strength. The joint is left undisturbed for 24 hours in order to attain strength of at least 30 N/mm².

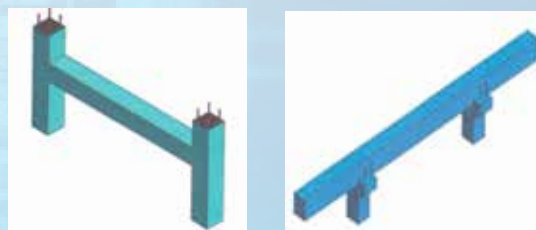


Fig: H-Frame and Pi-Frame

Fig: Erection Sequence at Pedestal to First H-Frame Level.



TECHNOLOGY AND INNOVATION

Step-5: In this way the H-Frames are joined with H-Frame and whole structure is created up to top. After installation of all H-Frames, the last member is connected with Pi-Frame.

Fig: Erection Sequence at H-Frame to H-Frame Connection.

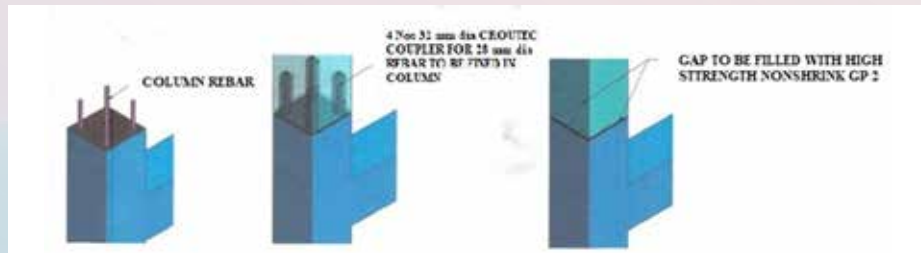
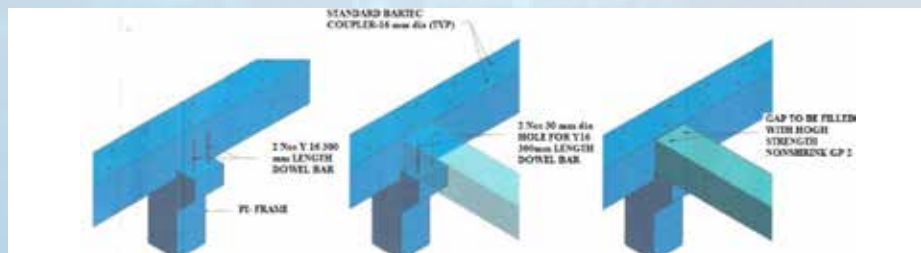


Fig: Erection Sequence at H-Frame to Pi-Frame Connection.



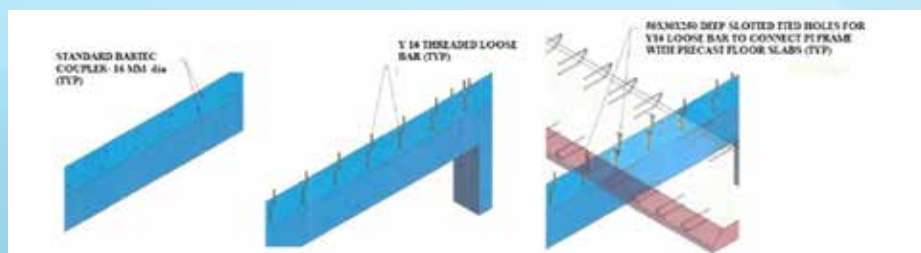
Step-6: The Corbel of Pi- Beam is joined with the secondary beam to form rectangular shaped arrangement on which top slab can be tightened.

Fig: Erection Sequence at Pi-Frame Corbel with Secondary Beam Connection.



Step-7: The top slab is placed in multiple parts and tightened to make complete supporting slab at required staging height.

Fig: Erection Sequence at Pi-Frame with Pre-Cast Slab Connection



TECHNOLOGY AND INNOVATION

Step-8: Zinc

Aluminium tank is placed in the top slab and work related to other necessary components like stair case, railings, valves are done.



Conclusion: Precast technology is increasingly important in modern construction due to several compelling benefits. These technologies offer numerous advantages, such as improved quality, speed, cost efficiency, and sustainability, making it a vital choice for modern construction needs. With its adoption the time and cost effectiveness can be observed in all kind of projects.

Written by








Avnish Mishra
Deputy Chief Engineer(Civil)

STAR PRESENTERS

Project Appraisal Presentation Meetings (PAPMs) offer platform to WAPCOS' officials to present the appraisal on the progress of projects focusing on the challenges encountered during project planning & execution, their feasible solutions adopted and upcoming technologies & innovations.

These meetings aim to foster information dissemination and knowledge sharing across all units and offices within the Organization. During these sessions, the officials make detailed presentations, which are attended by officers from various departments, enabling cross-functional engagement and fostering a deeper understanding of ongoing initiatives. By facilitating this exchange of insights and experiences, PAPMs promote collaboration, enable the sharing of best practices and encourage a cohesive approach to overcome challenges.

As a token of appreciation, the details of Star presenters of PAM - 12 held on 20.12.2024, who made presentations and shared their experiences and expertise are as follows:

Presenter	Name & Designation of the Officer	Presentation on Project
PRESENTERS OF PAM 12		
	Jayesh Darji, Additional Chief Engineer	Preparation of Integrated Master Plan for Gujarat Industrial Development Corporation (GIDC) Bulk Drug Park at Jambusar, Gujarat
	Deependra Singh Bhadauria Sr. Engineer	Kundah Pumped Storage Hydro-electric Project (4X125 MW) in Nilgiri Hills, Tamil Nadu
	Deepti Sharma Deputy Chief Engineer	
	Prasad K Naik, Additional Chief Engineer	Project Management Consultancy Services for Construction of Integrated Directorate Complex at Betkuchi, Assam
	Bal Krishna, Chief Engineer / Project Manager, Pune	De-novo Examination of Detailed Project Report (DPR) for the Development of Fresh Water Lake at Flat Bay, A&N Island

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 December, 2024

CONSULTANCY SEGMENT

Turnover



Shri Prabhat Kumar,
Dy. Chief Engineer,
T&D Unit, Power Division

New Business



Ms. Mukta J. Xess,
Additional Chief Engineer
INFS-II

Payment Realization



Leela Pawan Kumar K.
Deputy Chief Engineer,
Hydro-Power

CONSTRUCTION SEGMENT

Turnover



Shri Vibhu Goel,
Dy. Chief Engineer,
CMU-I

New Business



Shri Ishan Aggarwal,
Sr. Engineer,
Kerala Office, INFS-III

Payment Realization



Shri Prakhar Sharma,
Junior Engineer (Civil)
CMU-III

WAPCOS OPERATIONS ABROAD: FOOTPRINTS IN OVER 75 COUNTRIES



"5th Floor, Kailash, 26 Kasturba Gandhi Marg, New Delhi, Delhi – 110001"
Tel.: +91-11-23313131, 23313881; Fax: +91-11-23314924

