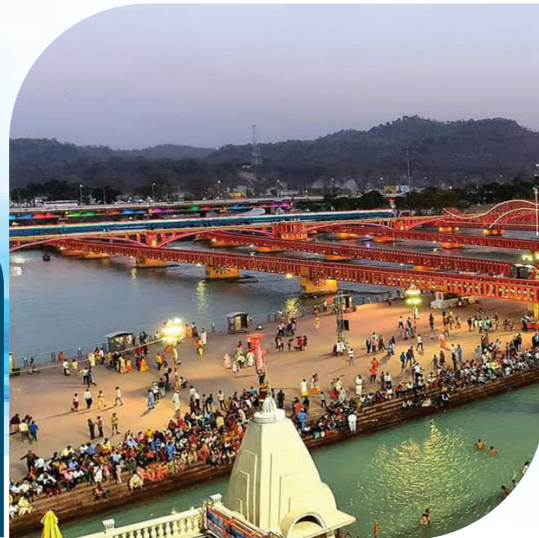


# *e-Sanchar*



MONTHLY  
NEWSLETTER  
February 2022

# WAPCOS PARTICIPATION IN GOVERNMENT OF INDIA SCHEMES

## 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”



### 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
- Bihar
- Rajasthan
- Haryana
- Meghalaya
- Uttar Pradesh
- Odisha
- Andhra Pradesh
- Telangana
- Kerala



### Pradhan Mantri Awas Yojana

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



### Deen Dayal Upadhyaya Gram Jyoti Yojana

- Uttar Pradesh
- Assam
- Tripura
- Karnataka
- West Bengal
- Tamil Nadu
- Jharkhand
- Himachal Pradesh
- Haryana
- Maharashtra
- Bihar
- Rajasthan
- Sikkim
- Kerala
- Nagaland
- Manipur



### Integrated Power Development Scheme

- Himachal Pradesh
- Jammu & Kashmir
- New Delhi & Goa
- Nagaland
- Sikkim
- Tamil Nadu
- Andhra Pradesh
- Telangana
- Maharashtra
- Chhattisgarh
- Odisha
- Uttar Pradesh



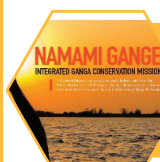
### Pradhan Mantri Gram Sadak Yojana

- Gujarat
- Assam
- Jharkhand
- 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
- Rajasthan
- Madhya Pradesh
- Assam
- Punjab
- Maharashtra
- Andhra Pradesh



## PRESENTING DIVIDEND CHEQUE TO HON'BLE MINISTER FOR JAL SHAKTI, Shri Gajendra Singh Shekhawat:

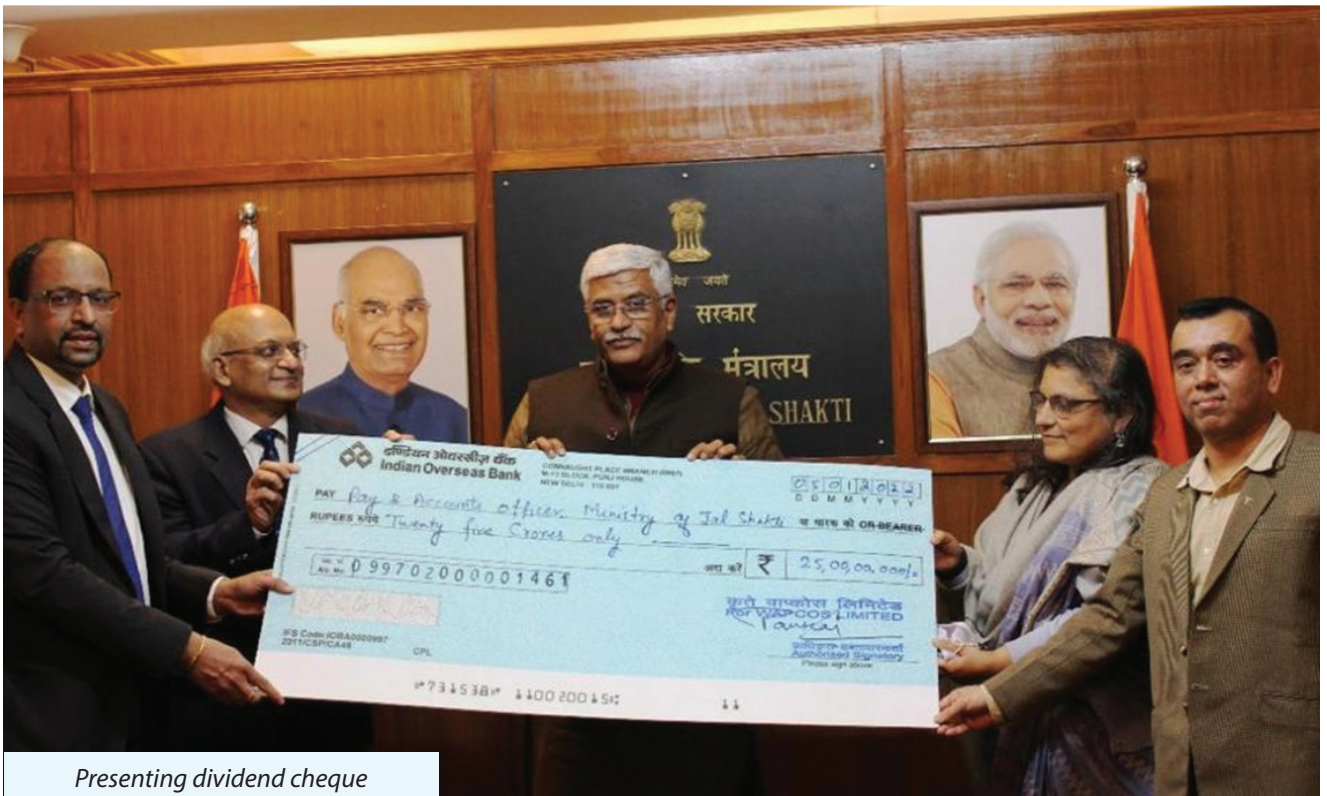
Shri Gajendra Singh Shekhawat, Hon'ble Minister for Jal Shakti was presented with a Dividend Cheque for the year 2020-21 by Mr. R.K. Agrawal, Chairman-cum-Managing Director, WAPCOS & NPCC on 06th January, 2022. Mr. Pankaj Kumar, Secretary; Ms. Debashree Mukherjee, Additional Secretary; Mr. Subodh Yadav, Joint Secretary, Ministry of Jal Shakti; Mr. Pankaj Kapoor, Director (Finance), WAPCOS along with other senior officers of Ministry & WAPCOS were also present during the ceremony.



Release of Newsletter 'e-Sanchar' and 'Quality Control Manual' for Building Construction

WAPCOS' Monthly Newsletter titled "e-Sanchar" and a "Quality Control Manual for Building Construction" were also released by the Hon'ble

Minister. WAPCOS as a techno-commercial organization under the aegis of Ministry of Jal Shakti has grown into a truly Indian multinational with footprints across the globe.



Presenting dividend cheque



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

## MESSAGE



*Ministry of Jal Shakti Tableaux during the Republic Day Parade 2022  
at Rajpath, New Delhi*

**Dear Readers,**

India celebrated its 73<sup>rd</sup> Republic Day this month. The day is celebration of the sovereignty of our country, marking the moment when the citizens of this country took the reigns of their future in their own hands. This year, we are also celebrating India's 75<sup>th</sup> Independence Anniversary through Azadi Ka Amrit Mahotsav making this Republic Day doubly special.

We all felt immense pride when witnessed the Jal Shakti Ministry proudly display the highlights of the Jal Jeevan Mission (JJM) on its tableaux during the grand parade on Rajpath. Under the theme of "Jal Jeevan Mission: Changing People's Lives", the aesthetically designed tableaux showcased how JJM has successfully undertaken the task of supplying running water to villages and schools situated even at heights of 14,000 feet along the Indo-China border in Ladakh.

At WAPCOS we are all delighted to see that the works we have undertaken under the JJM across the country are bearing fruits and that we truly are bringing change in people's lives.



## THE MONTH AT A GLANCE:

### Foundation Stone Laid for Ekalavya Model Residential School (EMRS) in Odisha



*Foundation Stone laying for EMRS by Hon'ble Minister of State for Jal Shakti and Tribal Affairs, Government of India, Shri Bishweswar Tudu*

On the 11th of January, the Hon'ble Minister of State for Jal Shakti & Tribal Affairs, GoI, Shri Bishweswar Tudu, laid the foundation stone for the construction of a Eklavya Model Residential School (EMRS) in Malkangiri district, Odisha.

The Ministry of Tribal Affairs, Government of India, has awarded WAPCOS work for Construction of 67 EMRS in various parts of the country. The development of these schools in tribal areas shall enhance the literacy rate amongst tribal communities.

At the foundation stone laying ceremony, the Hon'ble Minister led the Bhoomi Pooja, planted tree saplings and addressed the local population, highlighting the benefits of the Project. Shri Arun Dev (Project Manager, Raipur) along with other senior officials of WAPCOS participated in the event.

### Republic Day Celebrations at WAPCOS' Gurugram Office

On the occasion of the 73rd Republic Day, Mr. R.K. Agrawal, CMD WAPCOS, unfurled the National Flag in the presence of senior officials at the WAPCOS Head Office in Gurugram.



*Unfurling of National Flag at WAPCOS Office Complex, Gurugram*

## PROJECT UPDATE:

### Construction and Development of various amenities for Archeological Survey of India (ASI)

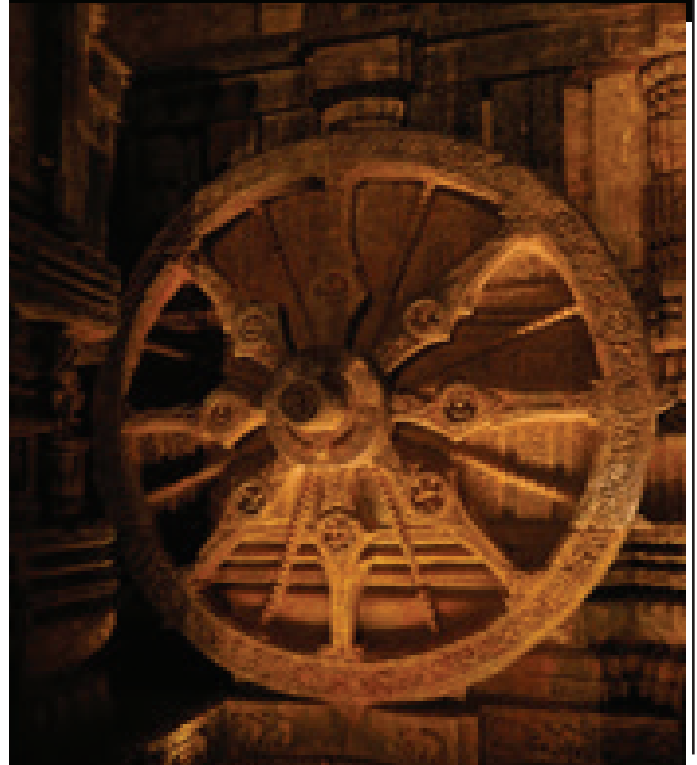
**W**APCOS, working in partnership with the Archaeological Survey of India (ASI) has undertaken the task of revamping and refurbishing over 200 monuments across India. Basis the agreement signed between the two organisations, WAPCOS has undertaken infrastructure development works worth more than Rs. 600 Cr. for ASI. The nature of the works include, landscaping, illumination & lighting projects, interpretation centres, museums, ticket counters, cafeterias, publication counters, toilet blocks, water fountains, boundary walls and parking lots among others.

The list of ASI sites being developed by WAPCOS include globally recognised World Heritage Sites such as the Group of Monuments at Mamallapuram, the Ajanta and Ellora Caves in Maharashtra, the Sun Temple at Konark in Odisha as well as the recently declared Dholavira excavations in Gujarat.

Other ASI sites such as Gangaikonda Cholapuram and Brihadeshwara Temple, Tanjavur in Tamil Nadu, the Group of Monuments at Hampi, Group of Monuments at Pattadakal in Karnataka, Champaner-Pavagadh in Gujarat are also being worked on. The development works are also in progress at Deeg Palace, Kumbhalgarh Fort, Chittorgarh Fort and Shiva Temple Arthuna in Rajasthan.

Recently, WAPCOS has completed illumination works on the Konark Sun Temple in Odisha. Konark Temple is a World Heritage site in Odisha built in 13th-century CE is attributed to king Narasimhadeva – I of Eastern Ganga Dynasty. The temple was conceived as Gigantic Solar Chariot with 12 Pair of exquisitely – ornamented wheels dragged by 7 rearing Horses.

The Project was conceptualized keeping in mind all the elements of the heritage building. Special high output and minimal in design looking fixtures were selected. The illumination of the temple is majorly divided into three parts. First to illuminate the Shikhar of the temple, second to illuminate the Nirtya Manadpa and third to illuminate the wheels. Linear Grazer lights that give a depth effect were used to illuminate the Shikhar and the wall of the temple. Meanwhile, LED spotlights on the ground and over the bollards highlight the temple & wheels. Lastly, LED lights were used to illuminate the Nirtya Mandapa.



*Glimpses of illumination effect at the Konark Sun Temple*



## PROJECT UPDATE:

### Establishment of New Campus of Chaudhary Bansi Lal University, Haryana

In 2019, WAPCOS was awarded the Project Management Consultant role for the establishment of a new campus of the Chaudhary Bansi Lal University, (CBLU) at in Bhiwani, Haryana.

CBLU Proposed to establish new campus of university at Prem Nagar to provide a compelling model for future communities, this campus is being developed as a smart, intelligent eco-campus. The campus is intended to serve its larger community as a "Living Laboratory", its purpose being to demonstrate, embed, explore, invent, research and refine systems, devices and technology.

Annually, University grants admissions to over than 1200 students in the faculties of Physical Science, Life Sciences, Humanities, Social Sciences, Management and Commerce.

Despite facing hurdles caused by the onset of COVID-19 in 2020-21, 95% of the work on teaching blocks has been completed. The works of 2nd component amounting to Rs. 81 crore has also started and this includes infrastructure works such as road building, water supply, sewerage, storm water network, underground water tank, external electrical works, sub-stations among others.

#### THE SAILENT FEATURES OF THE CBLU CAMPUS:

- Administration Block (1 no.)
- Academic Blocks (15 nos.)
- Examination Blocks (1 no.)
- Central Library (1 no.)
- Auditorium (1 no.)
- Student Facilitation Center
- Multi - Purpose Building (1 no.)
- Community Center (1 no.)
- Vice Chancellor Residence
- Director Residence
- Faculty Housing – 130 Units - (3 BHK & 2 BHK)
- Guest House - (150 Rooms, Dinning & Seminar)
- Boys Hostel – 3 Nos - 3500 Students)
- Girls Hostel – 2 Nos, - 2300 Students)
- Sports Complex
- Teacher's Club
- Shopping Center
- Infrastructure Works
- Road, Water Supply Network
- Sewerage Network
- STP, WTP



Project Overview



Completed Academic Blocks

## PROJECT UPDATE:

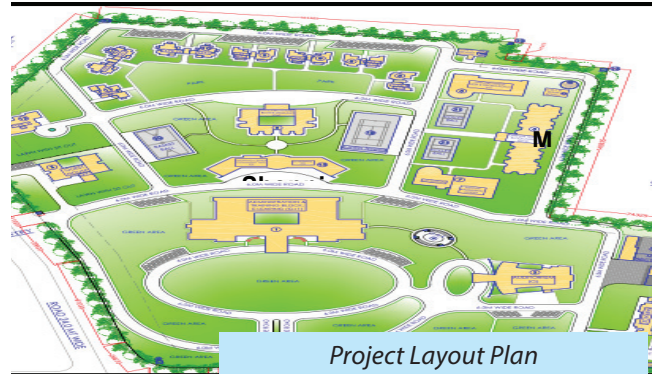
### Construction of Central Detective Training Institute, Jaipur, Rajasthan

As the project implementation agency from concept to commissioning, WAPCOS is proud to announce that we have completed the Construction of Central Detective Training Institute (CDTI), Jaipur under Bureau of Police Research & Development (BPR&D) for the Ministry of Home Affairs (MHA) Government of India. With the project now completed, the campus is now occupied and running as expected.

The CDTI Jaipur was set up with a mandate to improve the standard of crime investigation by familiarizing police and investigating officers with the state of the art technology & advances in forensic science.

The Broad Salient features of the project are:

- Plinth Area of 15,500 Sqm spread over 20 Acres
- Administration & Training Block
- Auditorium- 200 seater
- Guest House -6 Suites
- Male Hotel Block (75 Double Occupancy Rooms)
- Female Hostel blocks (20 Double Occupancy Rooms)
- Shopping Centre, Community Hall & MI Hospital, Gymnasium & Indoor Badminton Court
- Mess & Recreational Block
- 34 Type-II, III, IV, IVs, V Residential Quarters
- Horticulture & External Development works
- Boundary wall and Gates





## PROJECT UPDATE:

### PMC Works for 220 kV Supply Project- HPCL Visakh Refinery, Vishakhapatnam, Andhra Pradesh

HPCL Vizag refinery is in process of complying the requirement of EURO-VI standards and taking various measures not only to meet the regulatory compliance but to make the refinery as best in class example in terms of efficiency, cost effectiveness and energy efficiency. At present, power requirement of refinery is being met by captive generation and partially by Grid Connectivity. It is felt that enhancement of quantum via Grid Connectivity of refinery shall be very helpful to meet the objective of cost efficiency at the same time the reliability of entire system shall increase and keeping this in view it has been decided to draw the power from Grid for refinery



operation.

In order to meet above objective, it has been decided that the Vizag refinery shall be connected through electrical system with Kalpakka sub-station of Andhra Pradesh Transmission Company (APTRANSCO).

#### Line Details

WAPCOS Limited in consortium with M/s. PTC India limited undertook an assignment of Project Management Consultancy works for 220kV Supply Project, Visakh Refinery

#### Project Details

**Package I:** 220 kV Underground cable works from cable Tapping Tower to HPCL Visakh Refinery  
**Package II:** 220 kV GIS at HPCL and 220 kV bay extension works at 400/220 kV Kalpakka Substation  
**Package III:** 220 kV Overhead Transmission Line works from 400/220 kV Kalpakka Substation to cable Tapping Tower i.e. location no 47

WAPCOS Limited in consortium with PTC India Limited has successfully completed the following key milestones:

- Successfully commissioned two 220 kV Line bays on No-Load at 400/220kV Kalpakka Substation in the month of October, 2021
- Successfully completed 2220 kV Underground Cable Laying (10 Kms) in traffic congested stretches of Gajuwaka-Visakhapatnam
- Successfully completed Civil Works, Erection and Installation works of 220/kV GIS Substation inside HPCL Visakh Refinery-Brown Field Project.
- Successfully completed High Voltage Testing of 220kV Gas Insulated Switchgear inside HPCL Visakh Refinery in the month of November 2021.
- Successfully completed Foundation, Erection and Stringing works of 220 kV Double Circuit Transmission Line (11.448 Kms)

#### Work Completed

**97.7%**

## PROJECT UPDATE:

### Partnering with Government of India Construction of Roads and Bridges under Pradhan Mantri Gram Sadak Yojna (PMGSY) in Uttarakhand State

WAPCOS has been awarded the work of Construction and Maintenance of Village Roads and Bridges under PMGSY scheme in Uttarakhand State. Four Project Implementation Units (PIUs) have been established at:

Mori in District  
Uttarkashi

Ghansali in District  
Tehri

Bhatrojkan in District  
Almora

Kapkot in District  
Bageshwar



*Checking of Thickness of GSB Layer*

A total of 74 works (41 Roads with a total length of 385 km length and 33 Bridges) costing approximately Rs 335 Cr spread over above 4 districts are being constructed by WAPCOS. The scope includes getting

forest clearances, Bid Process Management, Planning & Execution of works, Quality Control, Construction Supervision and Maintenance for 5 years after construction.



*Laying of PC in progress*



## KNOWLEDGE CORNER: AQUIFER MAPPING

Aquifer Mapping is an integrated scientific approach applied through combination of Geological, Geophysical, Hydrogeological and Hydrological, Chemical & Engineering methods to decipher geometry of the aquifers and assess the quantity, quality and distribution of groundwater in them for their sustainable management.

### BENEFITS OF AQUIFER MAPPING

- Aquifer Mapping Programme addresses the critical need for information of the ground water resource
- No other program integrates variety of scientific information with objectivity & knowledge that the Aquifer programme possesses.
- GIS as a tool used for storing, manipulating, retrieving, analysis and display of both spatial and non-spatial data in a quick, effective and organized way.

### PURPOSE

The purpose of aquifer map is first and vital step on the supporting ground water resources planning and management at micro-levels (Village Level).

### OBJECTIVE

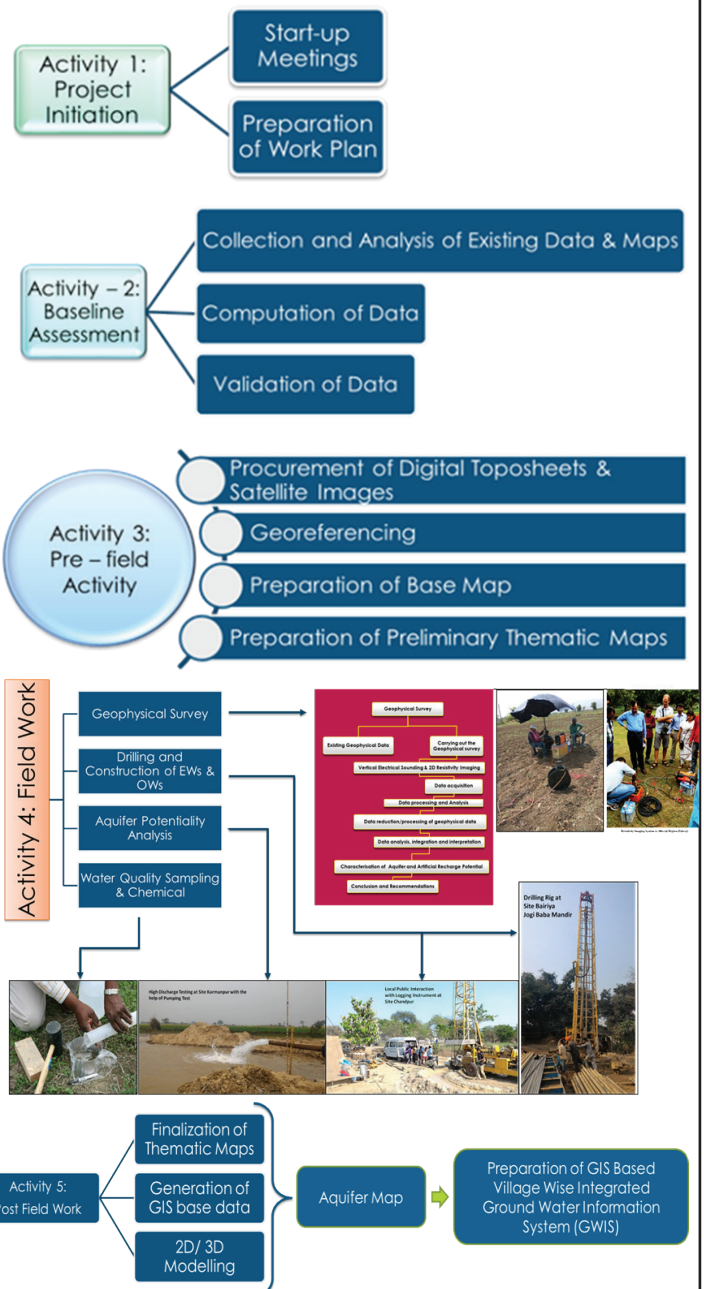
The main aim of aquifer mapping is to prepare aquifer maps which will provide information on the Extent & Geometry of Aquifer System at micro-level (in the scale of 1: 10,000). This leads to assessment of aquifer wise groundwater resource and inter-aquifer relationship in terms of quantity and quality through aquifer modelling.

### SCOPE OF WORK



### PLAN & APPROACH

The Aquifer Mapping programme is segregated into five inter-related sequential Activities and sub-activities:

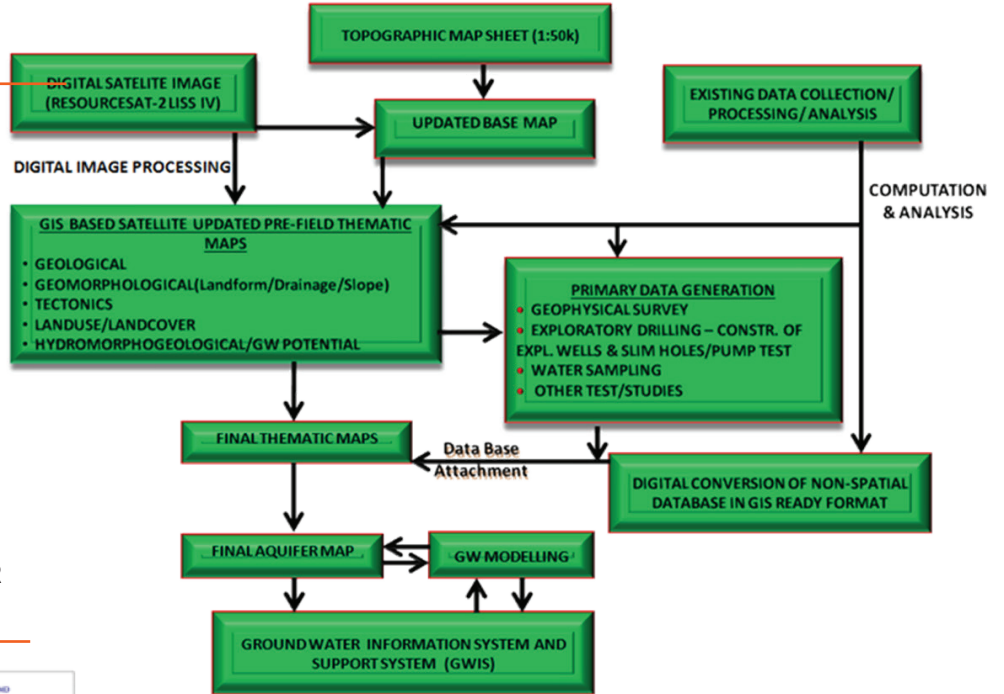


### ACHIEVEMENTS

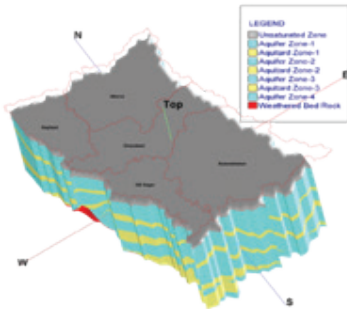
- GIS based Ground Water Information System (GWIS).
- 3D Aquifer Models.
- Estimation of village wise aquifer-availability, potential and quality.
- Demarcation of areas for aquifer recharge management.

# CONCEPT PLAN FOR AQUIFER MAPPING

## METHODOLOGY

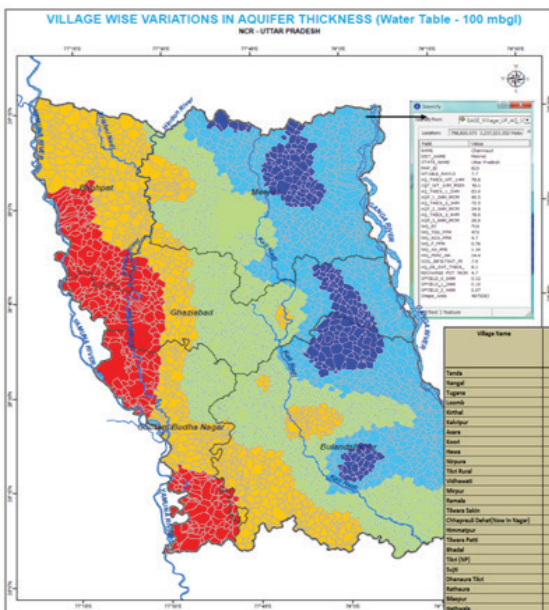


## RESULTS OF NCR AQUIFER MAPPING (CASE STUDY)



3D Aquifer Model of NCR - UP

## VILLAGE - WISE VARIATION IN AQUIFER THICKNESS (FROM WATER TABLE TO 100 m DEPTH) IN UTTAR PRADESH



## GWIS

Village Name	Area (sq.m)	Water Table (May, June, 2011) (mgt)	Aquifer Thickness (m)	Aquifer Resource (100 m) (MCM)	Aquifer Thickness (200 m) (MCM)	Aquifer Resource (200 m) (MCM)	Aquifer Thickness (300 m) (MCM)	Aquifer Resource (300 m) (MCM)	Aquifer Thickness (400 m) (MCM)	Aquifer Resource (400 m) (MCM)	Electrical Conductivity (µm/cm)	Total Dissolved Solids (mg/l)	Water Hardness (mg/l)	Fluoride (mg/l)	% Sodium	Arsenic (mg/l)	Total Hardness (mg/l)	Self Infiltration (mm/hour)
Tanda	100724	22	40.0	53.0	29.0	5.3	5.4	0.0	14.14	5.3	1051.46	2000	6	0.0	50.7	0.0	1047.70	38
Bargal	100840	17	40.0	13.7	10.8	9.6	9.1	1.4	14.8	3.2	1010.8	1200	6	0.0	54.4	0.0	1018.85	38
Togara	100907	19	40.0	9.7	10.4	4.5	11.6	1.2	21.5	2.2	1110.1	1004	6	0.0	58.9	0.0	1001.61	7
Karnal	100930	19	40.0	33.0	21.6	16.7	18.6	6.3	28.6	20.0	1010.0	906	7	1.0	45.0	0.0	1010.01	11
Kanpur	100937	18	40.7	77.8	29.3	43.3	22.9	25.8	34.2	38.0	742.8	844	8	1.1	45.0	0.0	1043.84	14
Kanpur	100938	17	39.4	14.9	29.0	15.0	17.0	9.8	40.0	44.0	418.0	110	6	1.1	10.7	0.0	1017.08	17
Shahdol	100939	18	41.8	63.5	30.8	38.1	26.7	26.2	40.0	36.0	1010.2	651	10	0.0	39.8	0.0	1010.00	47
Amra	100940	18	39.9	46.4	13.4	10.2	7.6	5.4	24.6	11.5	1010.1	1100	5	0.0	48.0	0.0	1017.68	10
Amra	100941	19	40.1	33.0	15.1	18.0	14.0	9.3	28.8	1.9	1017.1	864	6	0.0	48.0	0.0	1010.00	13
Shikar	100942	21	40.8	107.0	42.8	72.0	36.6	45.8	18.0	22.0	104.8	779	15	0.7	24.2	0.0	1048.21	7
Thakur	100943	20	40.1	17.8	18.0	48.1	30.1	28.0	40.7	43.7	1100.0	656	10	0.7	38.7	0.0	1010.00	16
Weathered Bed Rock	100944	11	40.4	10.2	10.9	4.5	17.7	3.9	41.8	1.9	1017.0	819	10	0.0	18.0	0.0	1010.00	48
Mirzapur	100945	18	40.8	11.9	10.0	8.3	15.0	2.8	25.5	1.7	1010.0	698	6	0.0	48.0	0.0	1010.00	10
Amra	100946	14	41.0	48.0	29.4	28.7	29.2	17.0	17.2	20.4	479.2	112	1.1	44.7	0.0	1010.00	25	
Shikar	100947	18	40.4	59.3	10.8	13.0	2.8	23.8	1.4	1110.1	105	4	0.0	48.4	0.0	1010.00	22	
Thakur	100948	20	40.1	18.0	18.0	48.1	30.1	28.0	40.7	43.7	1100.0	656	10	0.7	38.7	0.0	1010.00	16
Chhapra (Distt/Zone In Nagri)	100949	18	40.2	18.0	18.0	48.1	30.1	28.0	40.7	43.7	1100.0	656	10	0.7	38.7	0.0	1010.00	16
Amra	100950	18	40.1	4.2	10.0	2.7	20.1	1.3	42.2	1.4	1010.2	404	11	0.0	13.4	0.0	1010.00	20
Shikar	100951	17	40.1	26.3	10.8	18.6	12.9	3.2	21.8	1.4	1110.2	649	7	0.0	48.1	0.0	1010.00	23
Amra	100952	20	34.8	19.1	49.4	29.3	42.7	17.2	18.2	28.7	1010.4	688	11	0.0	27.8	0.0	1010.00	7
Shikar	100953	20	40.0	14.7	10.8	9.7	29.8	5.7	49.9	8.7	1100.0	1088	21	0.7	46.7	0.0	1010.00	8
Shikar	100954	14	41.0	11.7	10.4	9.0	27.4	5.9	41.4	8.0	716.8	460	6	0.0	29.0	0.0	1010.00	25
Weathered Bed Rock	100955	22	36.5	18.4	16.1	29.0	14.4	16.1	21.0	26.0	1010.4	812	17	0.0	24.4	0.0	1010.00	11
Amra	100956	18	42.1	30.5	29.2	17.8	18.5	7.8	21.8	13.8	1017.0	794	8	0.0	44.9	0.0	1010.00	14
Shikar	100957	14	38.0	0.0	0.0	0.0	7.1	0.0	38.0	0.0	1010.0	1181	5	0.0	14.1	0.0	1010.00	16
Amra	100958	14	38.0	0.0	0.0	0.0	8.7	0.0	38.0	0.0	1017.0	592	5	0.0	44.9	0.0	1010.00	16



## PROJECT UPDATE:

### Road and Bridge Upgradation Project in Indonesia

Spreading its footprint in the South East Asian region, WAPCOS has been awarded Comprehensive Design Consultancy of 4 Roads Packages spread over different islands in Indonesia by the Ministry of Public Works and Housing (MPWH) of Government of Indonesia, funded by the Asian Development Bank (ADB).

The project scope includes preparation of Feasibility Studies, Detailed Engineering Design for Roads/ Bridges, Value Engineering, Environmental Impact Assessment and Land Acquisition and Resettlement Action Plan (LARAP) for the project.

The project involves a road network length of over 700 km consisting of over 14 road sections spread over in different provinces of Sumatra Island, Sulawesi Island, Kalimantan Island and Nusa Tenggara Timur.

The objective is to provide inter-connectivity so as to promote ease of business and people to people connectivity within the islands.

These roads will bring relieve in vehicular traffic congestion, improve road safety, reduce accidents and black spots on roads by overall improving the geometric design of the road, enhance air quality and reduce noise pollution.

Despite prevalence of COVID-19 in Indonesia, WAPCOS team has been able to produce tremendous progress much to the appreciation of the client.



Traffic Survey Team



Geotechnical Investigation Team



Consultation with Forest Officials



Hydrological Survey Team



## PROJECT UPDATE:

### Project Management Consultancy for Water Authority of Fiji

**W**APCOS, a trusted partner of the Government of Fiji has been assigned Project Management Consultancy services of various projects across Fiji Islands by Water Authority of Fiji (WAF). Due to multiple projects being spread across Fiji Islands, WAPCOS has two offices, one in Suva, which is also the Head Office and one in Nadi for projects in the Western parts of the Fiji.

The total cost of these Projects is FJD 57.09 million or INR 202.60 cr. and total consultancy cost of WAPCOS is FJD 5.11 million or INR 18.14 cr. Despite the onset of COVID-19 pandemic, the WAPCOS team on the ground was able to push completion of 27 projects out of total of 32 ensuring that close to 90% of works have been

completed.

Additionally, WAPCOS has also saved a whopping FJD 2.45 Million for the client by ensuring that futile claims by local contractors were apprehended. Even in earlier completed projects, WAPCOS saved about USD 6.5 Million for the Water Authority of Fiji, from futile claims of the contractors. Our commitment to ensure quality of works and that no extra expenditure is claimed by the contractors while also adhering to agreed timelines are some of the many reasons why the client (WAF) appreciates WAPCOS' work and has extended WAPCOS' contract several times by adding new Projects to our contract on nomination basis.



Aeration in IDEA Basins of Kinoya WWTP



Kinoya WWTP Plant visit with Ministry of Economy officials and briefing by Country Manager about the plant works progress at SCADA Room



WAPCOS Engineer site visit with Ministry of Economy officials at Black Sewer Rising Main Project Nadi



## PROJECT UPDATE:

### Lower Seti Hydropower Project (126MW), Nepal

Tanahu Hydropower Limited (THL), NEA, Nepal awarded the work of "Consultancy services for Detailed Engineering Design and Preparation of Bidding Documents for Lower Seti Hydropower Project" to WAPCOS Limited.

Lower Seti Hydropower project as a Peaking Run of the River (PRoR) project will have an installed capacity of 126 MW generating 520.78 GWh annually. It is located at Tanahu district in Gandaki Pradesh (Province no. 4)



Lower Seti Barrage Site

of Nepal. The headwork of the Lower Seti Hydropower Project lies about 24 km downstream from Damauli and the powerhouse site is located at about 1.5km downstream from the confluence of Seti river and Trishuli river.

WAPCOS scope of works include Detailed Design & Engineering for Main Civil, HM & Electromechanical works, preparation of Tender Document for the project. The Project is being funded by Asian Development Bank (ADB).



Drilling Works at Project Site



Inspection of bore logs at site with the client

#### The Project Main Components are:

- Barrage structure, 191m Length, height of 32m.
- Head Race Tunnel of 6.76 km Length & 8.25m Diameter
- Open to sky Surge Shaft of Dia. 25m, Height 55m
- Installed Capacity - 3 X 42 MW (126 MW)
- Pressure Shaft of Dia. 6.75m, Length 197 m
- Semi-Underground Power House - 92.0 m x 32.0 m at erection bay
- 2km long 220kV single circuit transmission line in LILO scheme

The project will provide 520.78 MU Annual Energy benefits to Nepal. It is one of the Key project with High Barrage of 32 m Proposed in D/s of Upper Seti in Cascade development. The total Project Cost is Rs. 2000 Cr

While discharging their responsibilities WAPCOS' Officials and Engineers have demonstrated a high degree of professionalism, personal commitment, support and teamwork

We are delighted to intimate that Draft Detail Design Report has been submitted to THL as per schedule.



Joint Site Visit with Client

## PROJECT UPDATE:

### Rahughat Hydroelectric Project (40 MW), Nepal

Rahughat Hydroelectric Project is a Run-of-the-River Scheme on Raghuganga River Myagdi District, Western Nepal by Nepal Electricity Authority (Undertaking of Nepal Govt.).

WAPCOS has been entrusted with the Project Management Consultancy assignment for Establishment of Rahughat Hydroelectric Project (40 MW, 292.83m Design head).

Scope of the works include Detailed Design & Engineering for Main Civil, HM & Electromechanical works, preparation of Tender Document and Project Management Consultant for this project

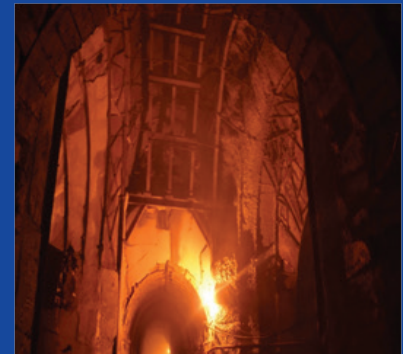
The Project is funded by Line of Credit (LoC), India.



*Concreting Works in Barrage Protection Wall*

#### The Main Project Components are:

- Barrage, 31m Length, 2 Nos 8m ht Radial Gate, 1Nos 5m ht Undersluice
- 2 Nos. Desilting Chamber - 80m (L) x 8m (W) x 5.94m (H)
- Head Race Tunnel of 6270m Length & 3.3m Dia.
- Open to Sky Surge Shaft of Dia. 10.0m, Height 54.65m
- Installed Capacity - 2 X 20MW (40 MW)
- Pressure Shaft of Dia. 2.15m, Length 1007 m
- Surface Power House – 57.75m (L) x 24.35m (W) x 12m H from Ground level



*HRT Excavation Work*

The project will provide 247.89 MU Annual Energy to Nepal where electricity is scarce. It is one of the Key project under execution in Nepal by Indian Assistance (Exim Bank). The project is in remote area and having challenging Topographical and Geological setup The total Project Cost is Rs. 483 Cr.

While discharging their responsibilities WAPCOS' Officials and Engineers have displayed a high degree of professionalism, commitment, support and teamwork.

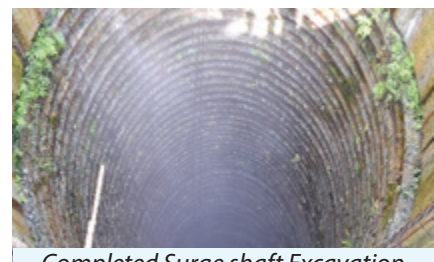
We are delighted to intimate that close to 25% of works for this project have been completed as per schedule.



*Excavation Work in Powerhouse*



*Completed Bridge Work*



*Completed Surge shaft Excavation Work*



## MONTH HIGHLIGHTS:

The Hon'ble Minister for Education, Government of Kerala, inaugurated a recently completed Government Boys Higher Secondary school, Mithirmala.

WAPCOS is playing an integral role in upgrading Education Infrastructure in Kerala and working on grass root level. Chosen as the Special Purpose Vehicle for the "Modernisation of Schools to International Standards as Centre of Excellence and betterment of Infrastructure facilities".

Salient features of the Project include Construction of Academic Blocks, Lab Blocks, Toilet block including dedicated disabled friendly toilet facility, Compound Wall

& a Built-up Area of 69,500 sqm for all schools. Despite the hurdles posed by the COVID-19 pandemic, WAPCOS has worked with dedication through the tough time and completed 17 of a total of 50 schools till date. Of the 33 remaining schools, 15 are scheduled to be completed by March 2022 and 18 more by June 2022.

Mr. R.K Agrawal, CMD WAPCOS, was presented a memento as a token of appreciation by the Hon'ble Minister, for the technical assistance and timely completion of construction of the new Higher Secondary Academic block. Congratulations to WAPCOS Team Kerala for the hard work and effort.



On the 12th of January, Mr. Girish Sharma, Project Manager, WAPCOS, Uganda called on H.E. Ms. Rebecca Alitwala Kadaga, Deputy Prime Minister and Minister for East African Community Affairs, Uganda and appraised her of WAPCOS' ongoing projects in the region and discussed further development opportunities.

## 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. Shekhar Gupta**  
Sr. Engineer  
(Hydro-Power)

#### New Business



**Mr. Chandrasekhar Kombathula**  
Country Manager,  
Tanzania

#### Payment Realization



**Mr. Amit Agarwala**  
Addl. Chief Engineer  
(P, D & L)

### CONSTRUCTION SEGMENT

#### Turnover



**Mr. Prasad Naik**  
Dy. Chief Engineer  
(Projects)

#### New Business



**Mr. Pankaj Kumar Dubey**  
Project Manager  
(Himachal Pradesh)

#### Payment Realization



**Mr. Jayesh Darji**  
Dy. Chief Engineer  
(SSP Ahmedabad)



