



AVEVAWORLD

Connected Water, Empowered Communities: Monitoring World's Largest Water Program



State Water & Sanitation Mission

Water Supply & Sanitation Dept., Govt. of Maharashtra

E. Ravindran (IAS) – Mission Director, SWSM Maharashtra

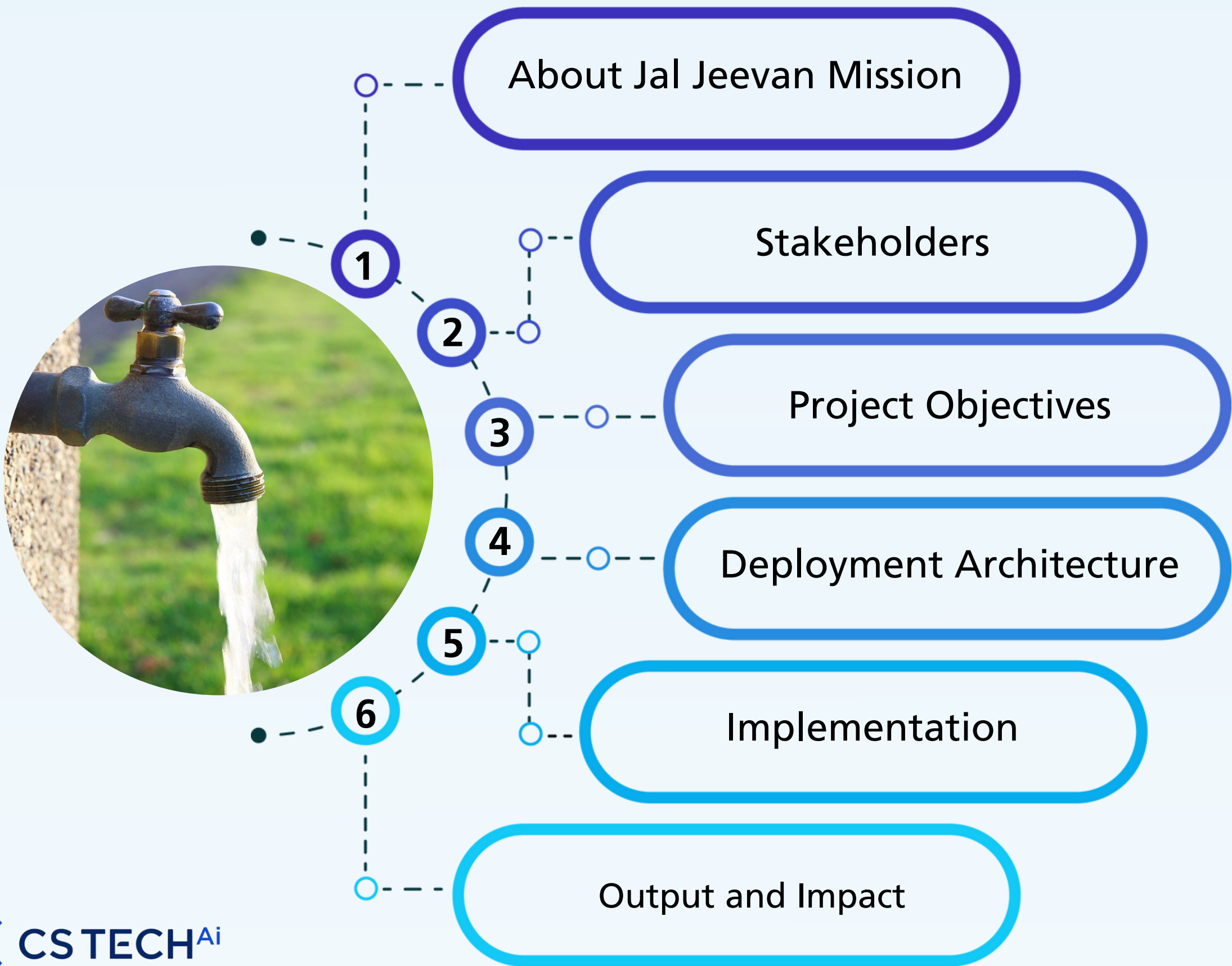
Prakash Yadav – CS Tech Ai

Ankit Dhorajiya – CereBulb



Har Ghar Jal Jal Jeevan Mission

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About Jal Jeevan Mission

With speed & scale



Har Ghar Jal
Jal Jeevan Mission



Vision

Every rural household has drinking water supply in adequate quantity of prescribed quality on regular and long-term basis at affordable service delivery charges leading to improvement in living standards of rural communities.

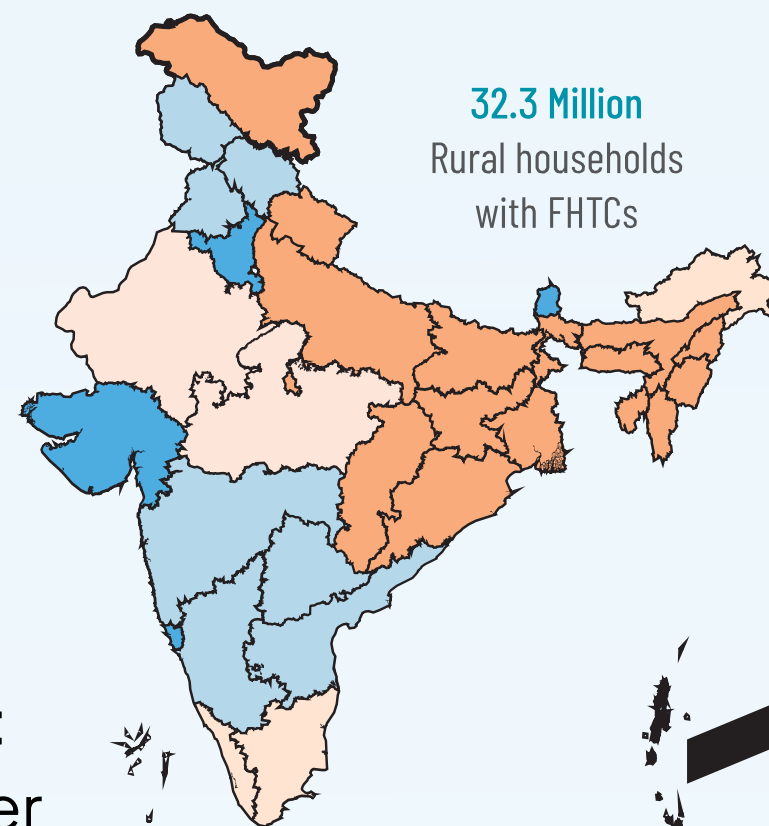


Mission

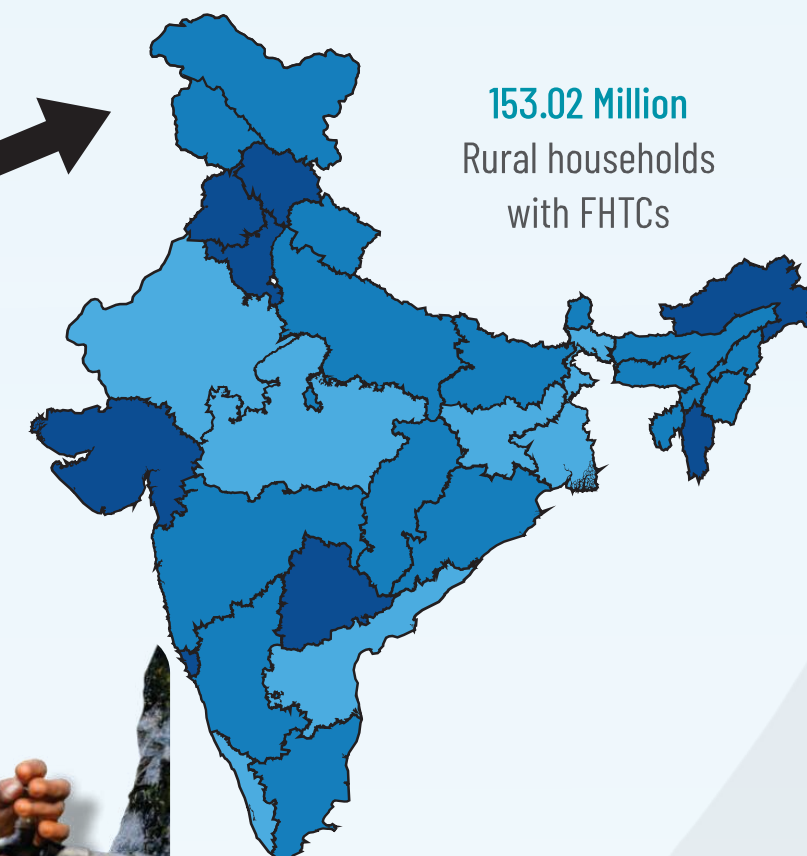
Jal Jeevan Mission is to assist, empower and facilitate: States/ UTs in planning of participatory rural water supply strategy for ensuring potable drinking water security on long-term basis to every rural household and public institution

Functional Household Tap Connection (FHTC)

As on 15th August, 2019



As on 25th November, 2024



32.3 million
to
more than
153.02 million



0 to <10%

10% to <25%

25% to <50%

50% to <75%

75% to <100%

100%

Paradigm Shift

Reform in Drinking Water



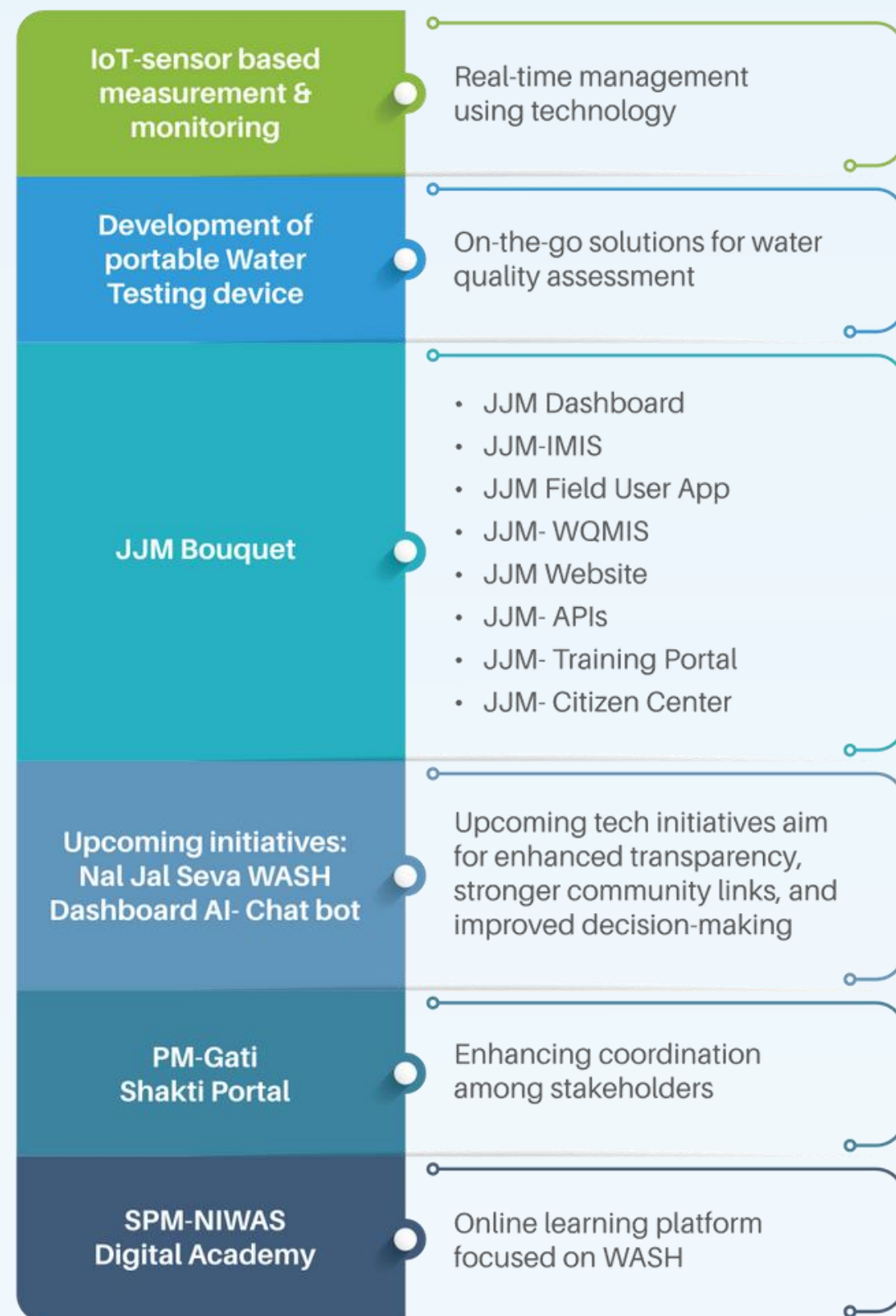
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	 Then Pre 2019	 Now Post 2019
Availability	Habitation Level: habitation level to enable people to get potable water.	Household Level: provision of tap water is being made till household level in adequate quantity of prescribed quality on regular and long-term basis.
Quantity	Variable 40-55 LPCD	Minimum 55 LPCD
Quality infra	Very less no. of WQ labs	Network of 2,160 water quality labs established
Women Participation	No mandatory participation of women at village level	>50% women led Pani Samitis/ VWSCs at community level for better management
Source Sustainability	Limited focus	Focus from planning stage with specific emphasis on recharge of Ground Water for PWS sources
Skilling for O&M	Entrusted with Panchayat level	Policy decision for skilled manpower under Nal Jal Mitra Programme (NJMP) User Charges Accounting

World's largest
programme for providing
potable drinking water to
every rural household in
the country

Digital Initiatives Under JJM

...through a digital approach

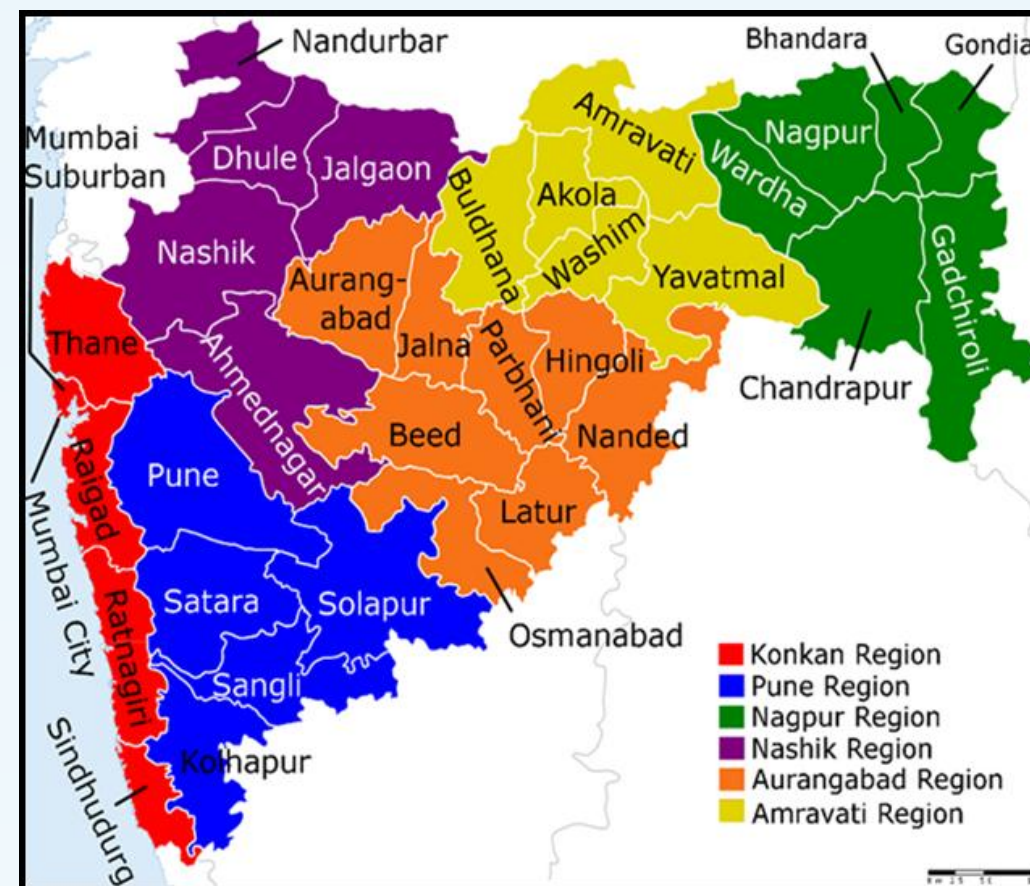


State Water & Sanitation Mission

Water Supply & Sanitation Dept., Govt. of Maharashtra



Har Ghar Jal
Jal Jeevan Mission



Covering around 45K Villages and cities in the State of the Maharashtra in India

- Total Population: 112 Million
- Total Area: 307,713 km²

AVEVA



PI System

Stakeholders – Success with Partnering



CS TECH Ai, Primary Contractor / Technology solutions provider, who is specialized Geospatial, Engineering & Technology solutions. Founded in 1998, the company specializes in offering solutions in the Geospatial, Enterprise & Engineering and mobility services space for a global clientele.

Technology Portfolio



CEREBULB

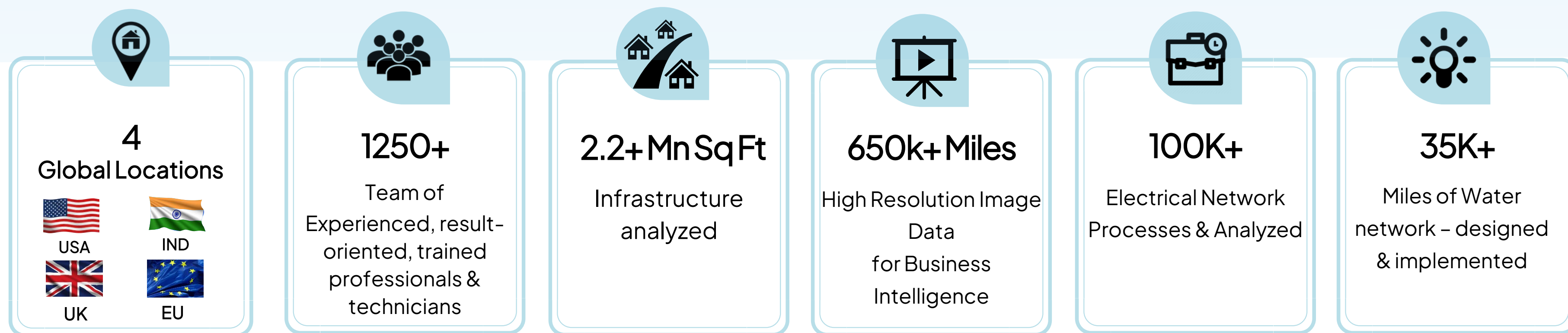


CereBulb is a global company that helps organizations navigate the ever-evolving world of digital transformation. A Technology partner to CS TECH Ai for the project and with a mission to act as a catalyst, empowering businesses to leverage technology and data to achieve their goals

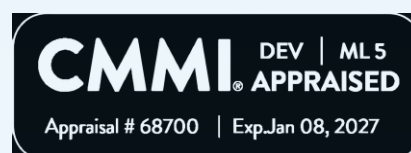
Technology Portfolio



CS Tech Ai is a CMMI Level 5, BSE-listed global company with over 26 years of proven expertise. We specialize in delivering innovative digital transformation solutions, leveraging advanced analytics, IoT integration, AI-powered platforms, and digital twins. Our tailored technology services empower organizations across diverse sectors to optimize performance, improve asset reliability, and drive impactful, data-driven business outcomes.



Certifications



CEREBULB at a Glance

CereBulb is a global company that helps organizations navigate the ever-evolving world of digital transformation. Our mission is to act as a catalyst, empowering businesses to leverage technology and data to achieve their goals



Start-Up of the Year
Entrepreneur of the Year



3

Global Locations



USA



IND



AUS



75+

Technology Portfolio

Open Source & Licensed



140+

Team of

Global Experts

Project Management | Software
Development | IoT | Analytics
| Strategy Building



450+

Years Combined
Industrial Experience

AVEVA

Solution
Provider

Technology
Portfolio



Schneider
Electric

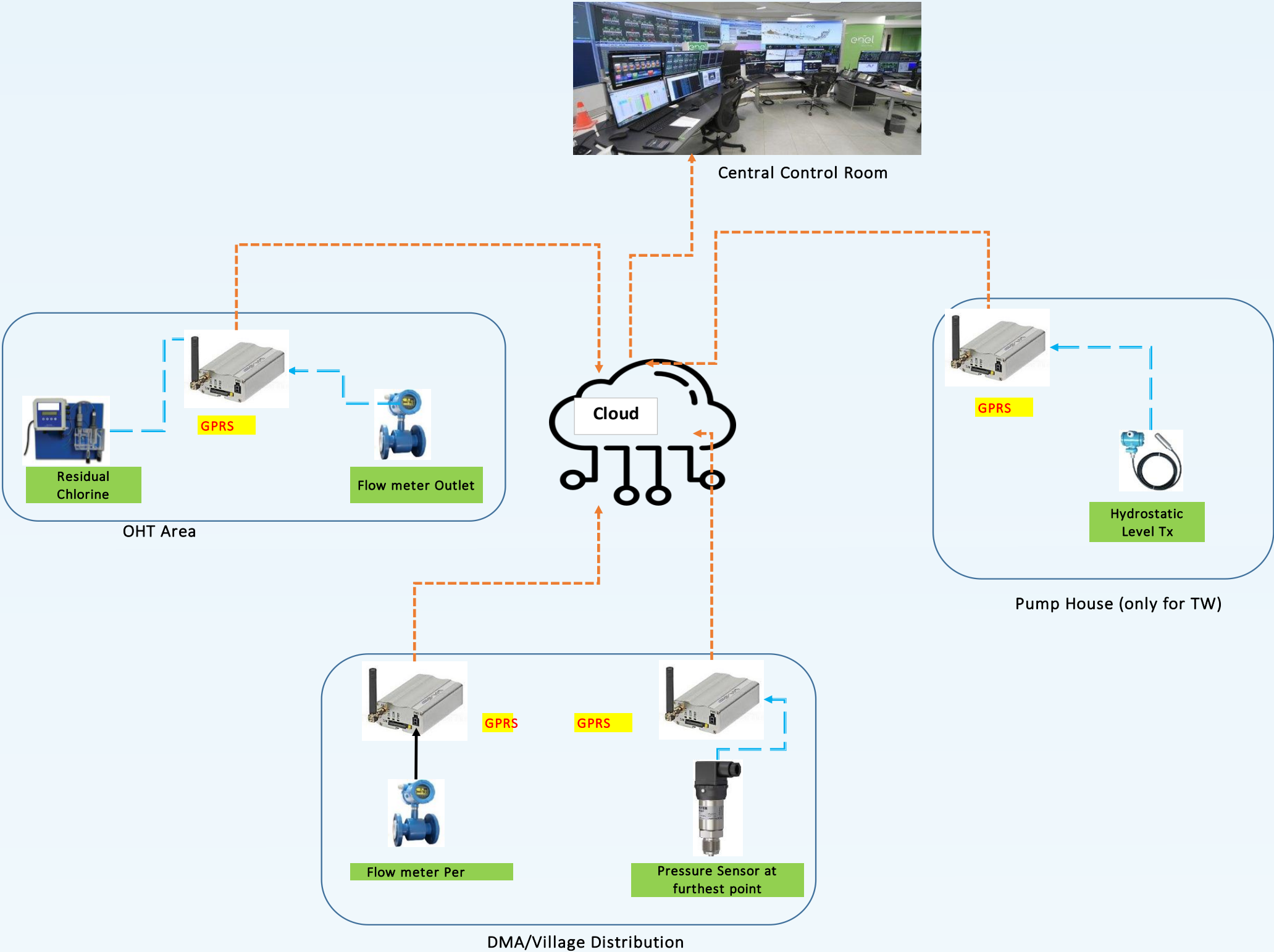
SI Partner



databricks

Partner

Project Overview



About IOT Project

The IoT-sensor-based monitoring system for rural water supply aims to provide end-to-end visibility of water distribution across villages, districts, states, and the national level in near real-time

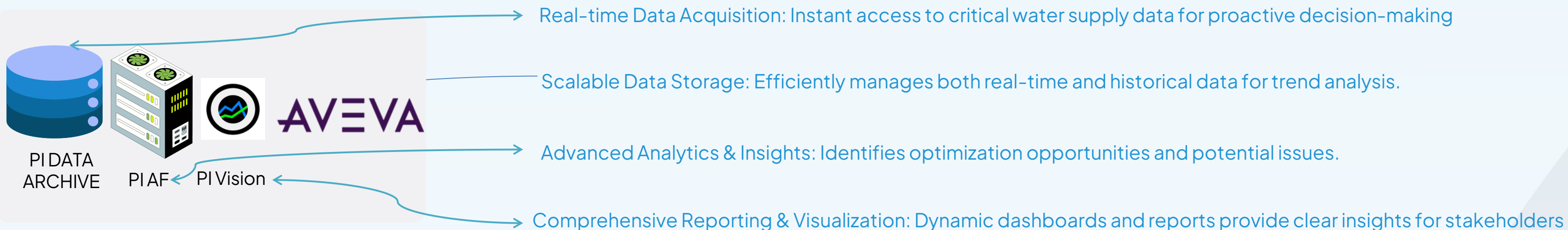


Implement sensor-based monitoring to track (KPIs) such as service delivery uptime, water loss minimization, and efficiency optimization.

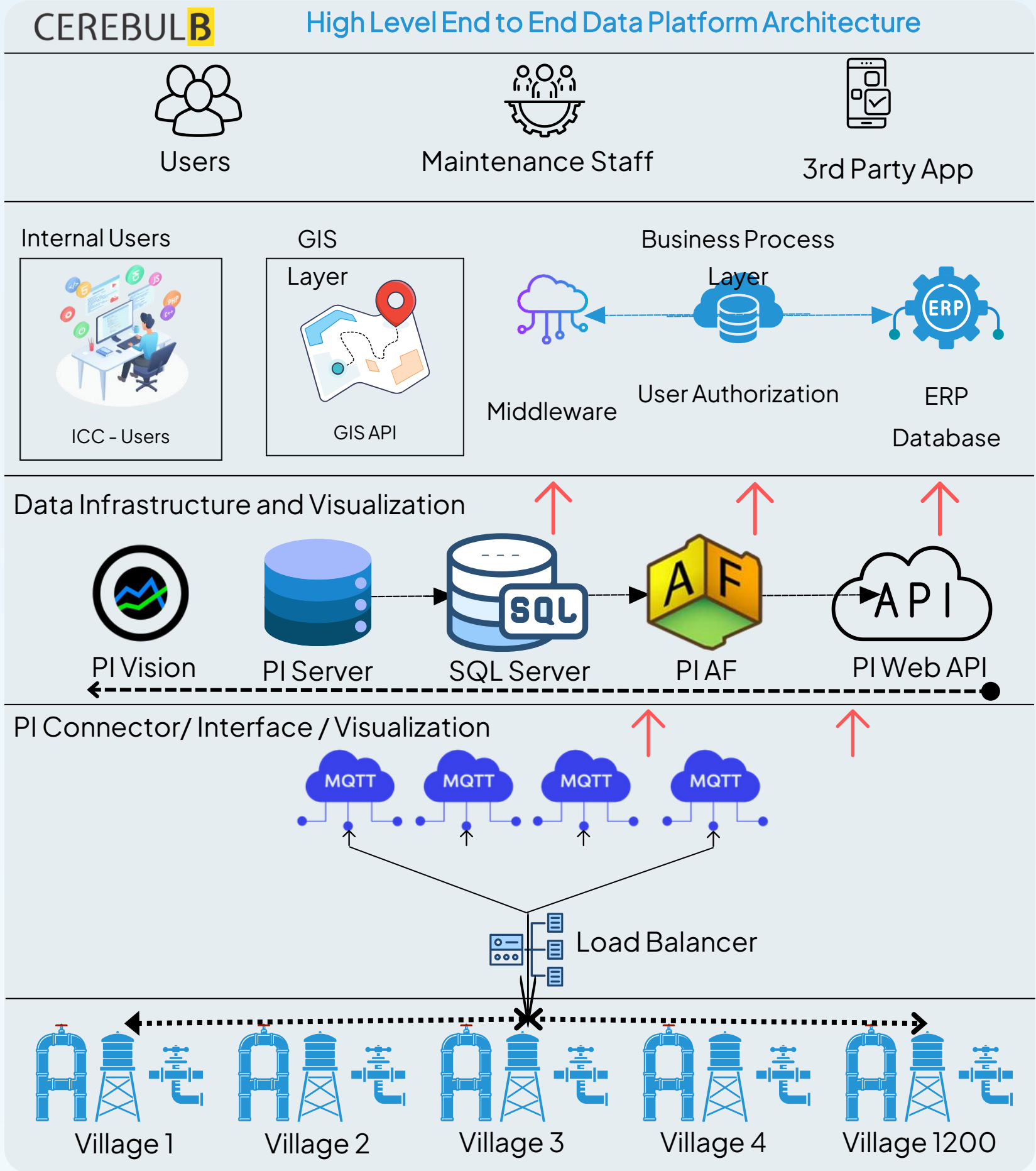
Utilize data analytics to study demand patterns and optimize resource management.

Ensure rapid response to anomalies, minimizing service disruptions and water wastage

Improve operational and maintenance strategies for rural water supply systems



Deployment Architecture



Metadata Integration using PI AF

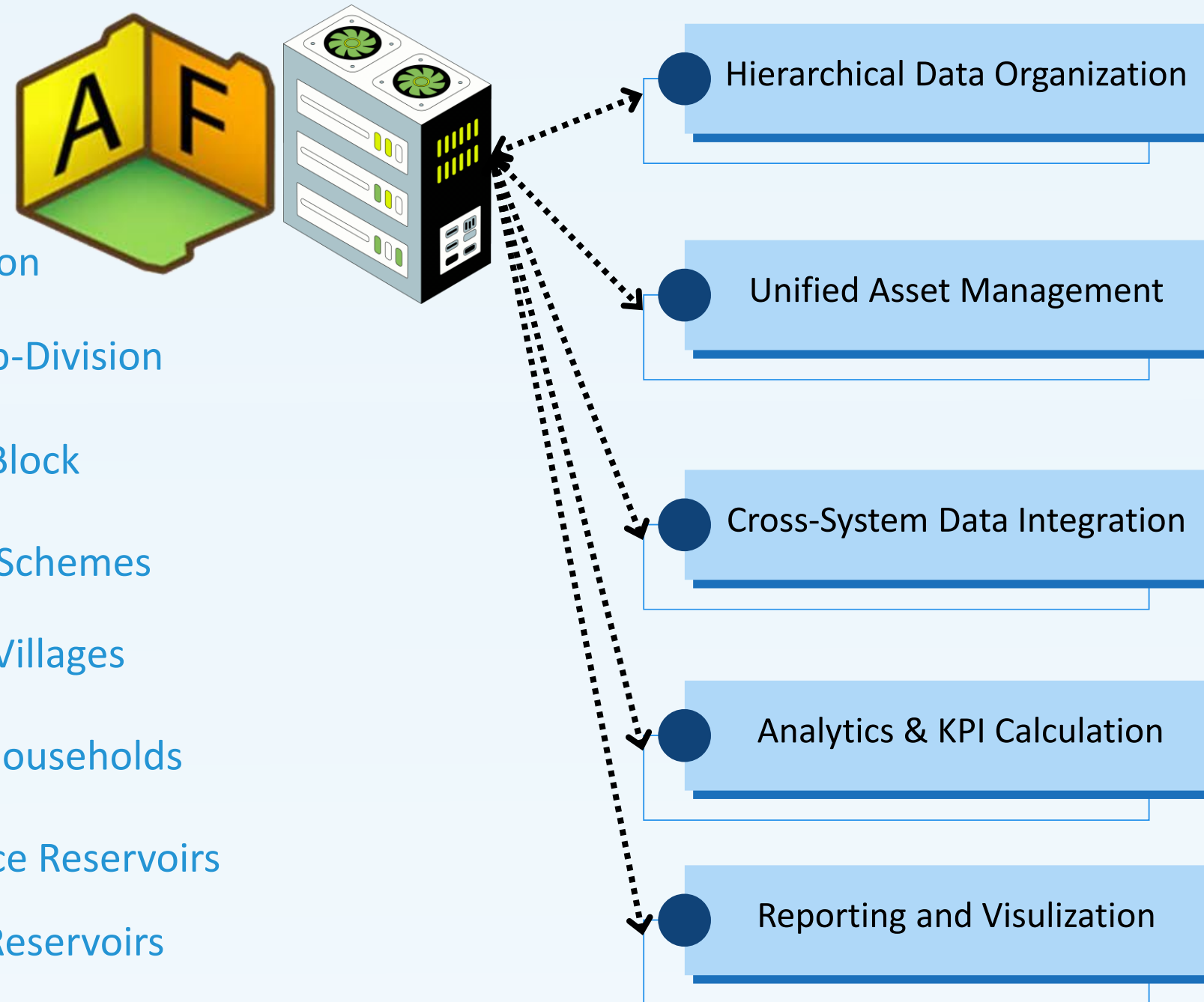


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Enterprise Asset Metadata

- Region
- Number of Circle
- Number of Division
- Number of Sub-Division
- Number of Block
- Number of Schemes
- Number of Villages
- Number of Households
- Elevated Surface Reservoirs
- Ground Surface Reservoirs
- Population

Integrating Metadata into PI Asset Framework



Metadata Integration using PI AF

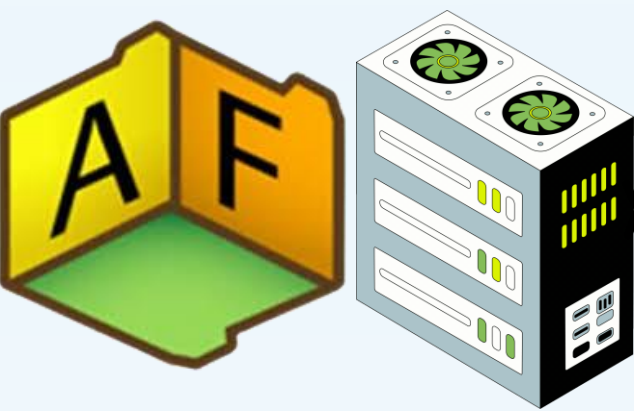
Integrating Metadata into PI Asset Framework



Hierarchical Data Organization

Cross-System Data Integration

Analytics & KPI Calculation



PI System Explorer (Administrator) - Maharashtra

Name	Value
Category: Enterpriseview Asset Metadata	
Household	1550977
Number of Block	135
Number of Circle	14
Number of Division	28
Number of ESR	5272
Number of GSR	194
Number of MBR	638
Number of Region	6
Number of Scheme	248
Number of Sub Division	73
Number of the Reservoir	6103
Number of Village	3407
Population	6847088
Site Name	JJM
State	Maharashtra
State - Capital	MAHARASHTRA
Category: KPI	
Calc - Active ESR	551

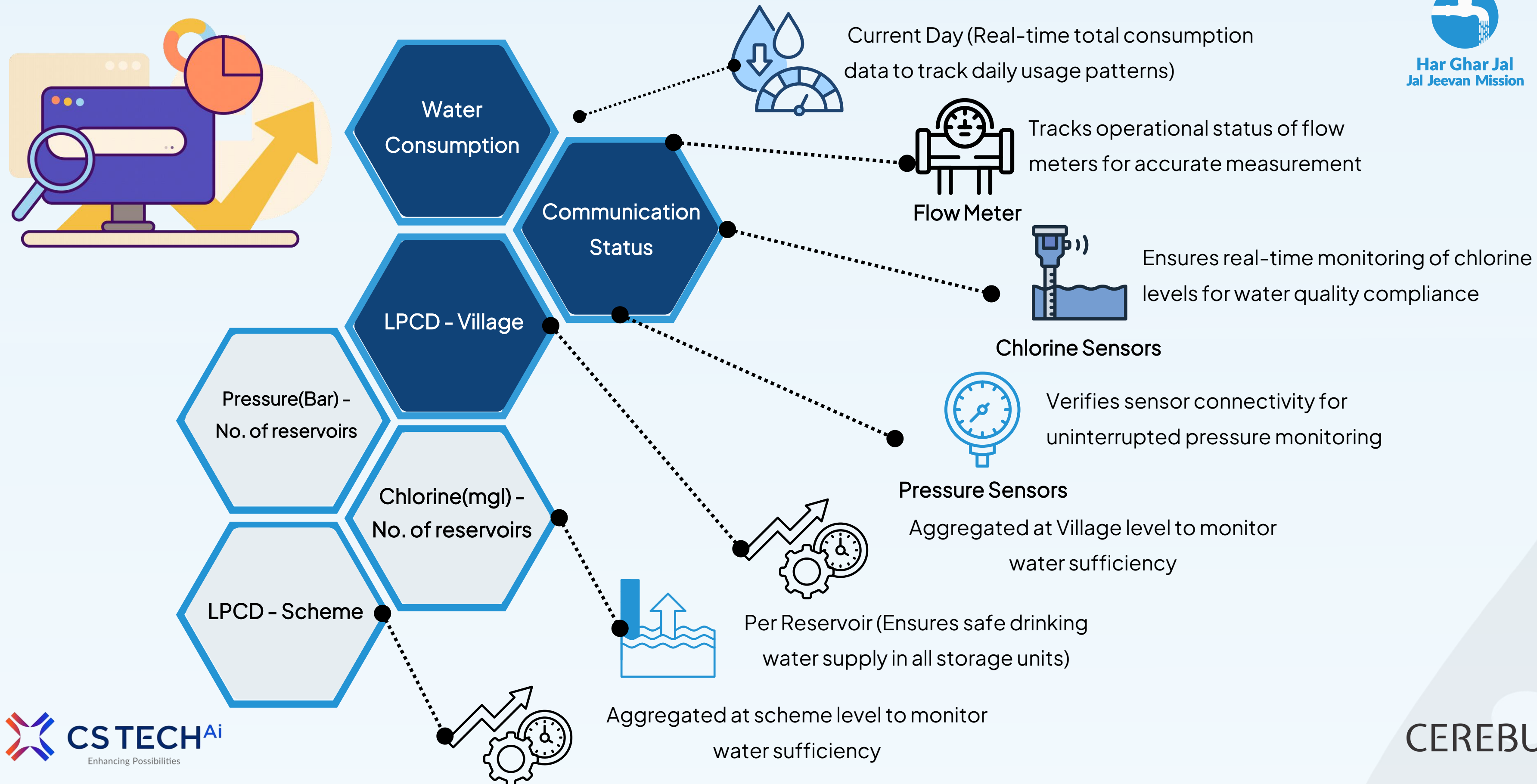
PI System Explorer (Administrator) - Sub Division-Akola

Name	Value
Category: Water Pressure - KPI	
Communication Status - Pressure - 24h	0
Communication Status - Pressure - 24h - 72h	0
Communication Status - Pressure - 72h	0
Communication Status - Pressure - Real Time	0
Number of achieving Pressure - Village count - Good	0
Number of achieving Pressure - Village count - Low Range	0
Number of achieving Pressure - Village count - Medium Range	0
Number of Pressure	0
Category: Water Quality - KPI	
Communication Status - Chlorine - 24h	3
Communication Status - Chlorine - 24h - 72h	0
Communication Status - Chlorine - 72h	0
Communication Status - Chlorine - Real Time	2
Number of achieving Chlorine - Village count - Good	1
Number of achieving Chlorine - Village count - HI Major	1
Number of achieving Chlorine - Village count - Low Major	1
Number of Chlorine	3
Category: Water Quantity - KPI	
Calc - Average Time Duration Water Supply per day	0.0020753 hours
Calc - 1 liter Per Canita Day	0.0053681

Unified Asset Management

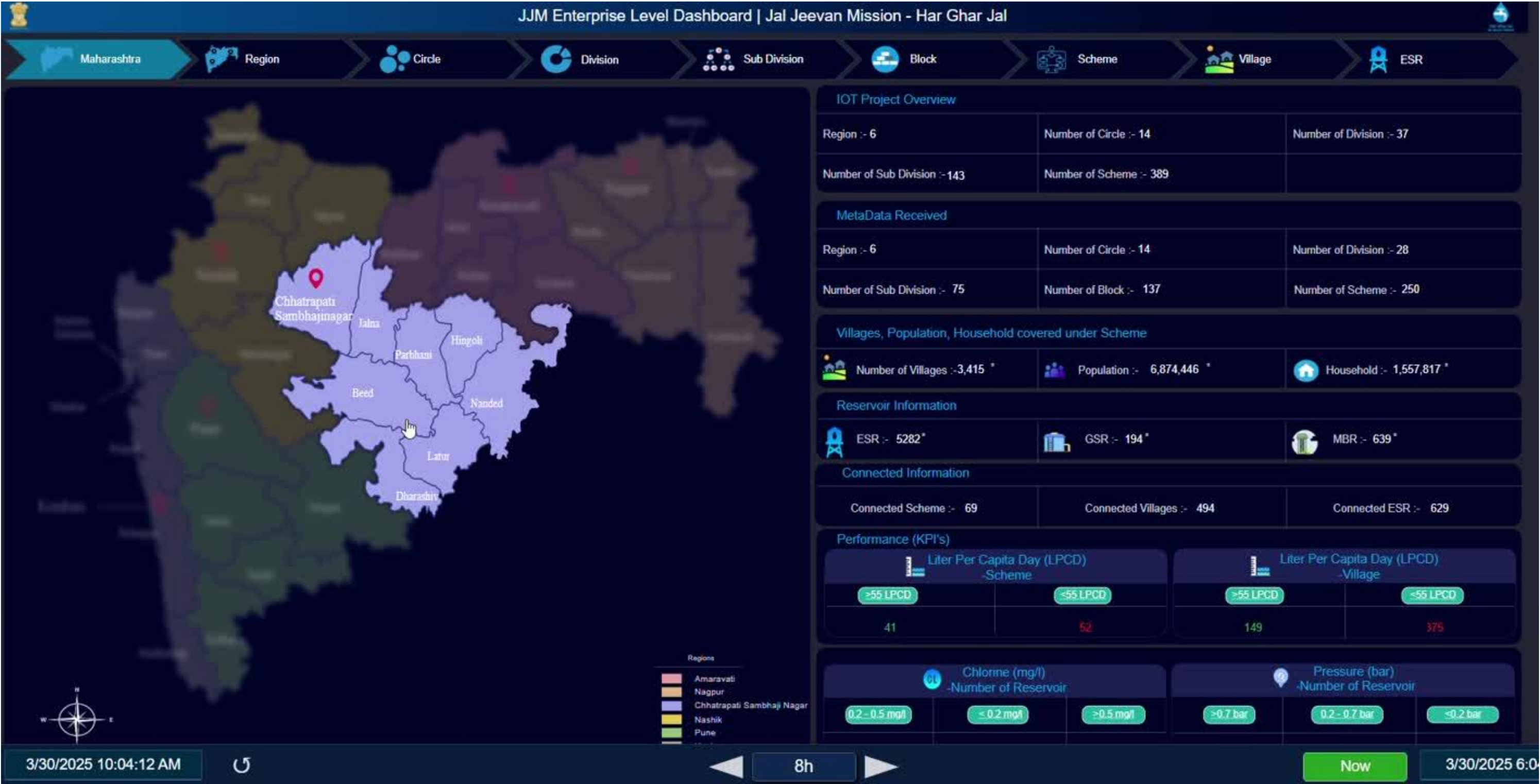
Reporting and Visualization

Key Performance Indicators and Analytics





Dashboards – Getting Output through Data on Sight



Reporting



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Integrated ESR Summary Level										
Last Updated Date:-		25-Mar-2025								
Sr. No.	Region Name	Number of ESR			No of RCA sensor		No. of Pressure sensor		No. of FM sensor	
		Total Number	Fully Completed	In Progress	Connected	Not Connected	Connected	Not Connected	Connected	Not Connected
1	Amravati	148	65	83	93	55	109	39	142	6
2	Nashik	75	31	44	58	17	38	37	63	12
3	Nagpur	116	64	51	113	3	64	52	113	3
4	Chhatrapati Sambhajinagar	142	81	61	134	8	93	49	129	13
5	Pune	97	33	64	65	32	50	47	95	2
6	Konkan	11	3	8	10	1	3	8	11	0
Total		589	277	311	473	116	357	232	553	36
Remarks										
Connected		Communication established with the system								
Not		Communication not established with the system								
Fully Completed		If all sensor is communicating with the system of an ESR								
In Progress		If any one sensor of the ESR is communicating with system								

- Project Tracking of Elevated Surface Reservoirs
- Data from Sensors is integrated through MQTT
- Analytics is built in PI Asse Framework giving out the progress report on Project at ground

- Reports are Further Segregated for Each Region.
- No. of Sensors and it's communication status is tracked through MQTT Data in PI AF

Region Wise ESR Level Progress Report																							
ESR Level																							
ESR Total Number of Data										Remarks													
Total Number		Connected		Not		Online		Offline		0-72 hr		>72h		Connected Communication established with the system									
Number of Chlorine		148		93		55		56		37		1		2		Not Communication not established with the system							
Number of Pressure		148		109		39		42		67		34		33		Online Value is Constantly updating that means online							
Number of Flow meter		148		142		6		136		6		0		6		Offline Value is not updating that means Offline							
Total Number of ESR		Fully Completed		In Progress		Fully Completed If all sensor is communicating with the system of an ESR																	
148		65		83		In Progress If any one sensor of the ESR is communicating with system																	
Sr No.	Circle	Division	Sub Division	Block	Scheme ID	Scheme Name	Village Name	ESR Name	Chlorine - Connected or not	Pressure - Connected or not	Flow Meter - Connected or not	Chlorine - Online or Offline	Pressure - Online or Offline	Flow Meter - Online or Offline	Status	Chlorine - 0h - 72h	Chlorine - >72h	Pressure - 0h - 72h	Pressure - >72h	Flow Meter - 0h - 72h	Flow Meter - >72h		
1	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MIP RR (C 39)	Kolha	Existing 0.50 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		
2	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MIP RR (C 39)	Gourkheda	Existing 0.30 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	1	0	0		
3	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MIP RR (C 39)	Kandali	Existing 1.00 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	1	0	0	0		
4	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Waghdoh	Existing 0.35 LL ESR	Connected	Not	Connected	Online	N/A	Offline	In Progress	0	0	0	0	0	1		
5	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Hiwara	Existing 0.45 LL ESR	Connected	Connected	Connected	Online	Offline	Online	Fully Completed	0	0	0	1	0	0		
6	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWS	Tahwel	Existing 0.50 LL ESR- Out	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		
7	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MIP RR (C 39)	Khel Choudhar	Existing 1.5 LL ESR	Connected	Connected	Connected	Offline	Offline	Offline	Fully Completed	0	0	1	0	0	1		
8	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Aadgaon	Existing 0.75 LL ESR- Out	Not	Connected	Connected	N/A	Offline	Online	In Progress	0	0	1	0	0	0		
9	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MIP RR (C 39)	Govindpur	Existing 0.75 LL ESR	Connected	Connected	Connected	Offline	Offline	Online	Fully Completed	0	0	1	0	0	0		
10	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Dhamori	Existing 0.95 LL ESR	Not	Connected	Connected	N/A	Offline	Online	In Progress	0	0	1	0	0	0		
11	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Vasantwadi	Existing 0.50 LL ESR	Not	Connected	Connected	N/A	Online	Online	In Progress	0	0	0	0	0	0		
12	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Kharala	Existing 0.30 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		
13	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Kumbhi Wagholi	Proposed 0.40 LL ESR	Connected	Connected	Not	Offline	Online	N/A	In Progress	0	0	0	0	0	0		
14	Akola	Akola	Murtizapur	Murtizapur	20028330	Langhapur 50 VRRWS Tq. Murtizapur Dist. Akola	Rajura Ghate	Existing 0.60 LL ESR	Not	Connected	Connected	N/A	Offline	Online	In Progress	0	0	1	0	0	0		
15	Amravati	Amravati W.M	W.M.Amravati - 2	Chandur Bazar	20003791	105 Villages RRWS	Naya Akola	Existing 1.05 LL ESR-Out	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		
16	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Kasampur	Proposed 0.40 LL ESR	Connected	Connected	Connected	Online	Offline	Online	Fully Completed	0	0	0	1	0	0		
17	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWS	Shirajgaon	Existing 1.5 LL ESR-2	Connected	Connected	Connected	Online	Offline	Online	Fully Completed	0	0	1	0	0	0		
18	Akola	Buldhana	Buldhana	Buldhana	20021406	Padali & 5 Villages RRWS	Palaskhed Naik	Existing 0.40 LL ESR	Connected	Connected	Connected	Offline	Offline	Online	Fully Completed	0	0	0	1	0	0		
19	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Harvankheda	Existing 0.30 LL ESR- Out	Not	Connected	Connected	N/A	Offline	Online	In Progress	0	0	1	0	0	0		
20	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MIP RR (C 39)	Wadgaon Fattepur	Existing 0.50 LL ESR	Connected	Connected	Connected	Offline	Offline	Online	Fully Completed	0	0	1	0	0	0		
21	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Khumagad	Existing 0.40 LL ESR	Not	Not	Connected	N/A	N/A	Online	In Progress	0	0	0	0	0	0		
22	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Dhangarkheda	Existing ESR 0.50 LL	Not	Not	Connected	N/A	Offline	Online	In Progress	0	0	1	0	0	0		
23	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWS	Koltek	Existing 0.20 LL ESR	Not	Not	Connected	N/A	N/A	Online	In Progress	0	0	0	0	0	0		
24	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MIP RR (C 39)	Belaj	Existing 0.30 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		
25	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MIP RR (C 39)	Kakda	Existing 1.5 LL ESR	Connected	Connected	Connected	Online	Offline	Online	Fully Completed	0	0	1	0	0	0		
26	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MIP RR (C 39)	Khel Sakharan (Kurh)	Existing 1.00 LL ESR	Connected	Connected	Connected	Online	Online	Online	Fully Completed	0	0	0	0	0	0		



**Har Ghar Jal
Jal Jeevan Mission**



Har Ghar Jal
सब के साथ

Water Consumption Progress Report

ESR Level

Date:-27-Mar

Percentage of Water Consumption on ESR Level

Number of Consistent 0 Water Consumption for Week

0 Days1 Days2 Days3 Days4 Days5 Days6 Days7 Days

1484277381455917354142381019

Remarks

Connected

Not

Online

Offline

Communication established with the system

Communication not established with the system

Value is Constantly updating that means online

Value is not updating that means Offline

Sr No.	Circle	Division	Sub Division	Block	Scheme ID	Scheme Name	Village Name	ESR Name	Flow Rate (m3)	Flow Meter - Connected or not	Online or Offline	ESR Capacity	Water Consumption per Day (LL)							Consistent 0 Water Consumption	Percentage of Water Consumption per Day - Previous Day	
													20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar			
1	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	Kolha	Existing 0.50 LL ESR	28.01	Connected	Online	0.50LL	2.4434	3.1632	2.4205	2.4205	2.9019	3.3421	2.9519	0	59%	
2	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Gourkheda	Existing 0.30 LL ESR	5.53	Connected	Online	0.30LL	0.8889	1.0285	0	0	1.0276	0.6896	1.0656	2	355%	
3	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Kandali	Existing 1.00 LL ESR	62.94	Connected	Online	1.00LL	8.171	5.6	0	0	7.4684	6.225	9.9666	2	98%	
4	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Waghdoh	Existing 0.35 LL ESR	0.00	Connected	Offline	0.35LL		0	0	0	0	0	0	7	0%	
5	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Hiwara	Existing 0.45 LL ESR	0.00	Connected	Online	0.45LL	10.143	6.49	0	0	5.7441	8.19	9.0427	2	203%	
6	Amravati	Amravati W	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Tahwel	Existing 0.50 LL ESR -Outlet-1	5.27	Connected	Online	0.50LL	2.3236	1.9	0	0	1.7084	2.0672	1.9632	2	993%	
7	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Khel Choudhar	Existing 1.5 LL ESR	17.91	Connected	Offline	1.5LL		0	0	0	0	0	0	7	0%	
8	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Aadgaon	Existing 0.75 LL ESR- Outlet-1	0.00	Connected	Online	0.75LL	1.02	0	0	0	0	0.4	1.0005	4	133%	
9	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Govindpur	Existing 0.75 LL ESR	32.52	Connected	Online	0.75LL	0.5307	0.73	0	0	0.3515	0.5024	0.5264	2	70%	
10	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Dhamori	Existing 0.95 LL ESR	0.00	Connected	Online	0.95LL	29.203	9.8166	0	0	17.638	21.288	14.135	2	145%	
11	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Vasantwadi	Existing 0.50 LL ESR	0.00	Connected	Online	0.50LL		0	52.415	1.9197	1.9197	12.013	39.292	0	0%	
12	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Kharala	Existing 0.30 LL ESR	0.00	Connected	Online	0.30LL	0.3695	0.27	0	0	0.2648	0.6635	0.4774	2	159%	
13	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Kumbhi Wagholi	Proposed 0.40 LL ESR	Pt Created	Not	Offline	0.40LL		0	0	0	0	0	0	7	0%	
14	Akola	Akola	Murtizapur	Murtizapur	20028330	Langhapur 50 VRRWSS Tq. Murtizapur Dist. Akola	Rajura Ghate	Existing 0.60 LL ESR	74.19	Connected	Online	0.60LL		0	2	0	0	0.94	0.7601	0	0%	
15	Amravati	Amravati W	W.M.Amravati - 2	Chandur Bazar	20003791	105 Villages RRWSS	Naya Akola	Existing 1.05 LL ESR-Outlet-1	0.00	Connected	Online	1.05LL		0	0	0	0	0	0	7	0%	
16	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	Kasampur	Proposed 0.40 LL ESR	0.00	Connected	Online	0.40LL		0	0	0	0	0	0.1326	0	0%	
17	Amravati	Amravati W	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Shirajgaon	Existing 1.5 LL ESR-2	0.00	Connected	Online	1.5LL		0	0.36	0	0	1.4668	0	0	0%	
18	Akola	Buldhana	Buldhana	Buldhana	20021406	Padali & 5 Villages RRWSS	Palaskhed Naik	Existing 0.40 LL ESR	0.00	Connected	Online	0.40LL		0	0.22	0	0	0.49	0.41	0.17	3	43%
19	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpathar 28 Villages, (Reju.)	Hanvantkheda	Existing 0.30 LL ESR -Outlet-1	0.00	Connected	Online	0.30LL		0	0	0	0	0.1934	0.5647	0.3378	4	113%
20	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	Wadgaon Fattepur	Existing 0.50 LL ESR	19.58	Connected	Online	0.50LL	3.7815	2.0757	3.2504	3.2504	2.8907	2.9893	2.6934	0	53%	
21	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Khumagad	Existing 0.40 LL ESR	0.00	Connected	Online	0.40LL		0.87	0	0	0	0.8188	0.2162	0.82	3	205%
22	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Dhangarkheda	Existing ESR 0.50 LL	0.00	Connected	Online	0.50LL	0.6322	0.39	0	0	0.2851	0	0	4	0%	
23	Amravati	Amravati W	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	Koltek	Existing 0.20 LL ESR	0.00	Connected	Online	0.20LL		0	0	0	0	0.1829	1.1045	0.0073	4	4%
24	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	Belaj	Existing 0.30 LL ESR	0.00	Connected	Online	0.30LL		0.16	0	0	0	0.0225	0	0.2007	4	67%
25	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	Kakda	Existing 1.5 LL ESR	0.00	Connected	Online	1.5LL		0	0	0	0	0.2004	0	0	6	0%

- The Supplied water and its consumption are further tracked for each Circle, Division, Sub-Division, Block and Scheme.
- Flow meter data and it's Connection status are reported to ensure the data is accurate.
- Analytics are built in PI to for Comparative analysis on % consumption per day VS % consumption previous day.

Reporting



Liter per Capite per Day Progress Report																											
Village Level																											
TOTAL Numb er of	>55 LPCD	<55 LPCD	Litre Per Capita Per Day												Number of Consistent 0 LPCD for Week								Number of Consistent <55 LPCD				
			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	>100	0 Days	1 Days	2 Days	3 Days	4 Days	5 Days	6 Days	7 Days	0 Days	1 Days	2 Days	3 Days	4	
120	58	62	41	4	6	2	6	5	3	2	4	3	44	27	0	0	0	0	0	0	0	17	3	43	11	4	
Sr No.	Circle	Division	Sub Division	Block	Scheme ID	Scheme Name	Village Name	Population	Number of ESR	Water Consumption per Day - ESR Level - Previous Day (LL)						Liter Per Capita Day - Pervious Day (L)						Consistent Zero LPCD for a week	Consistent <55 LPCD for a week	Consistent >55 LPCD for a week			
										21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar				26-Mar		
1	Amravati	Amravati W.M	W.M.Amravati - 2	Chandur Bazar	20003791	105 Villages RRWSS	Krishnapur	1029	1	1.88	1.50	1.50	1.91	1.44	1.70	157.41	182.87	145.34	145.34	185.57	139.72	165.25	0	0	7		
2	Amravati	Amravati W.M	W.M.Amravati - 2	Chandur Bazar	20003791	105 Villages RRWSS	Lasanapur	0	1	1.92	1.55	1.55	1.74	1.31	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7	7	0		
3	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Khel Sakharan (Kurh)	119	1	10.05	0.00	0.00	7.17	5.05	12.61	14352.13	8445.38	0.00	0.00	6025.26	4240.94	10597.96	2	2	5		
4	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Khel Choudhar	1350	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7	7	0		
5	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Selora	1555	1	1.12	0.00	0.00	0.99	0.82	0.87	67.48	72.03	0.00	0.00	63.43	53.02	56.15	2	3	4		
6	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Sayat	2238	5	0.17	0.00	0.00	2.15	0.00	1.19	112.18	7.60	0.00	0.00	95.93	0.00	53.17	3	5	2		
7	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Saur	3880	1	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	18.01	6	7	0		
8	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	Kondwardha	235	1	1.45	0.67	0.67	0.34	1.02	0.93	691.48	617.37	284.81	284.81	144.24	434.72	397.60	0	0	7		
9	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	Kolha	419	2	3.16	2.42	2.42	2.90	3.05	2.95	583.16	754.94	577.68	577.68	692.58	728.87	704.51	0	0	7		
10	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Shirajgaon	1491	6	8.07	0.00	0.00	7.04	6.42	5.72	397.72	541.25	0.00	0.00	472.07	430.80	383.53	2	2	5		
11	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Shirala	10390	6	1.13	0.00	0.00	1.80	1.91	2.37	29.88	10.88	0.00	0.00	17.28	18.35	22.78	2	7	0		
12	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Talwel	4024	6	3.21	0.00	0.00	3.19	3.14	3.46	103.82	79.77	0.00	0.00	79.36	78.04	86.07	2	2	5		
13	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Tarkheda	3773	3	2.60	0.00	0.00	2.25	3.75	3.27	91.73	68.91	0.00	0.00	59.67	99.33	86.60	2	2	5		
14	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Takarkheda	1961	4	0.77	0.00	0.00	1.46	0.72	1.60	75.19	39.27	0.00	0.00	74.23	36.63	81.45	4	2	3		
15	Akola	Akola	Akola	Akola	20028565	Akot 84 VRRWSS Tq. Akola, Akot & Telhara Dist. Akola	Sonbardi	712	2	0.00	0.00	0.00	0.17	0.01	0.00	54.47	0.00	0.00	0.00	23.19	0.98	0.00	7	4	0		
16	Akola	Akola	Akola	Akola	20028565	Akot 84 VRRWSS Tq. Akola, Akot & Telhara Dist. Akola	Jaulka	1312	1	0.00	0.00	0.00	0.00	4.30	3.93	274.27	0.00	0.00	0.00	0.00	327.84	299.34	4	4	3		
17	Akola	Akola	Akola	Akola	20028565	Akot 84 VRRWSS Tq. Akola, Akot & Telhara Dist. Akola	Deori	2560	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7	7	0		
18	Akola	Akola	Akola	Akola	20028565	Akot 84 VRRWSS Tq. Akola, Akot & Telhara Dist. Akola	Alewadi	800	1	0.33	0.00	0.00	0.29	0.29	0.22	45.41	41.25	0.00	0.00	36.35	36.30	28.04	7	2	0		
19	Amravati	Amravati W.M	W.M.Amravati - 2	Achalpur	20003791	105 Villages RRWSS	Virshi	1231	1	0.72	0.00	0.00	0.63	0.94	1.55	93.40	58.49	0.00	0.00	51.52	76.35	126.08	3	2	4		
20	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	Chinchkheda	1185	2	0.37	0.00	0.00	0.54	0.09	0.00	43.87	31.22	0.00	0.00	45.51	7.65	0.00	7	3	0		
21	Amravati	Amravati W.M	W.M.Amravati - 2	Achalpur	20003791	105 Villages RRWSS	Zanji	175	3	1.79	0.00	0.00	0.80	1.37	1.22	994.63	1022.86	0.00	0.00	454.42	781.60	698.11	2	2	5		
22	Amravati	Amravati W.M	W.M.Amravati - 2	Achalpur	20003791	105 Villages RRWSS	Yeiki	1086	2	37.18	0.00	0.00	20.49	32.17	26.26	2513.28	3423.72	0.00	0.00	1887.18	2962.26	2418.39	2	2	5		
23	Amravati	Amravati W.M	W.M.Amravati - 2	Achalpur	20003791	105 Villages RRWSS	Wathoda	2563	2	0.21	0.00	0.00	0.84	1.40	0.83	87.91	8.19	0.00	0.00	32.97	54.70	32.38	6	2	1		

- LPCD – Liter per Capita day.
- Chlorine level in ranges (mg/l) is tracked through data coming from Live Sensors for 45K villages (in phase 1 its for 9K Villages)
- Scheme Functional Status is tracked through PI AF Analytics combining Metadata and Real-Time Data

Region Wise Village Level Progress Report														
Scheme Level														
					Total Number of Scheme	No. of Functional Scheme	No. of Partial Scheme	No. of Fully Completed Scheme	Total Number of ESR	Number of Fully Completed ESR	Balance to Complete ESR			
					15	1	14	1	695	65	630			
Sr No.	Circle	Division	Sub Division	Block	Scheme ID	Scheme Name	No. of Village	No. of Functional Village	No. of Non-Functional Village	Total Number of ESR	Scheme Functional Status	No. Fully Completed ESR	Balance to Complete ESR	Fully completion Scheme Status
1	Amravati	Amravati	Achalpur	Chandur Bazar	7945938	83 Village RRWS Scheme MJP RR (C 39)	30	9	8	13	63 Partial	17	46	In Progress
2	Amravati	Yavatmal	Pusad	Pusad	20028563	Malpantnar 28 Villages, (Reju.)	30	6	22	6	62 Partial	0	62	In Progress
3	Amravati	Amravati W.M	W.M.Amravati - 2	Achalpur	20003791	105 Villages RRWSS	10	2	8	3	20 Partial	0	20	In Progress
4	Amravati	Amravati W.M	W.M.Amravati - 2	Amravati	20003791	105 Villages RRWSS	21	3	7	11	53 Partial	6	47	In Progress
5	Akola	Akola	Akola	Akola	20028565	Akot 84 VRRWSS Tq. Akola, Akot & Telhara Dist. Akola	74	2	1	71	117 Partial	0	117	In Progress
6	Amravati	Amravati W.M	W.M.Amravati - 2	Bhatkuli	20003791	105 Villages RRWSS	58	11	10	37	105 Partial	6	99	In Progress
7	Akola	Akola	Murtizapur	Murtizapur	20028330	Langhapur 50 VRRWSS Tq. Murtizapur Dist. Akola	52	1	0	51	70 Partial	0	70	In Progress
8	Amravati	Amravati W.M	W.M.Amravati - 2	Chandur Bazar	20003791	105 Villages RRWSS	25	7	4	14	53 Partial	4	49	In Progress
9	Amravati	Amravati	Amravati - 2	Nandgaon Khandeshwar	20030287	Tekli & 4 Villages RRWS	5	3	2	0	8 Partial	0	8	In Progress
10	Akola	Buldhana	Buldhana	Motala	20028065	Pophali & 3 Villages RRWSS	4	3	1	0	8 Partial	5	3	In Progress
11	Akola	Buldhana	Buldhana	Motala	20021409	Kurha & 2 Villages RRWSS	3	2	0	1	4 Partial	1	3	In Progress
12	Akola	Buldhana	Buldhana	Motala	20027978	Dhamangaon Deshmukh & 9 Villages RRWSS	10	8	2	0	17 Partial	9	8	In Progress
13	Akola	Buldhana	Buldhana	Buldhana	20021406	Padali & 5 Villages RRWSS	6	6	0	0	7 Functional	7	0	Completed
14	Amravati	Amravati	Achalpur	Achalpur	20029998	Shahanur & 9 Villages RRWS	10	4	3	3	15 Partial	3	12	In Progress
15	Amravati	Amravati	Achalpur	Achalpur	7945938	83 Village RRWS Scheme MJP RR (C 39)	58	1	6	51	93 Partial	7	86	In Progress

Remarks	
No. of Functional Village	All ESR is active
No. of Partial Village	Few ESR is active
No. of Non-Functional Village	None of the ESR is active
Functional (Scheme)	If all village is Functional
Partial (Scheme)	Few village is Functional
No. Fully Completed ESR	All the ESR is active as well as
Completed	All ESR is active as well as all
In Progress	Any village is partial (some ES

State of Maharashtra manages the world's largest water program on AVEVA PI

Challenge

- Need for a Robust Data Platform - to monitor such a large volume of data.
- Fast Deployment – Was something very essential as it must match program deadline.
- Need for a unified platform that gives, dashboarding, reporting, data quality, analysis + notifications

Solution

- Deployed AVEVA™ PI System™ to streamline data collection, access, analysis, and reporting

Results

- End-to-end Visibility – Water supply tracking and effective scheme monitoring
- Improved Water Quality & Health Safety – Chlorine level tracking ensures safe drinking water for rural populations.
- Sustainable Water Resource Management – Long-term analytics help optimize water usage & secure future supply.



Conclusion and Way Forward



Real-time Monitoring and Rapid Response

- Ensures consistent supply of safe and clean drinking water
- Enables quick response to issues

Real-time Monitoring and Rapid Response

- Maintains reliable and steady water supply
- Supports both urban and rural regions

Leak Detection Systems

- Early identification and repair of leaks
- Reduces water loss and enhances efficiency

Accurate Monitoring of Reservoir Levels

- Facilitates effective water resource management

Consistent Water Pressure



Har Ghar Jal
Jal Jeevan Mission

Thank You



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