

# Sunanda Enviromental International Pvt.Ltd

PIONEERS IN SMART WATER QUALITY MANAGEMENT

*In Technological Partnership with.....*

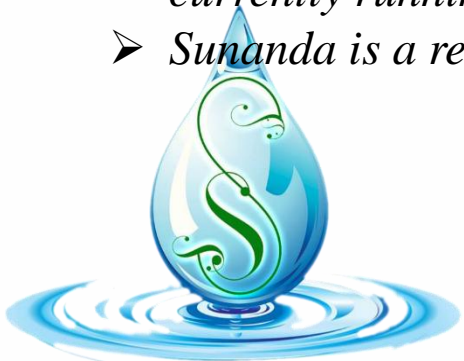
## Wagtech Projects & Trace20 Limited

*Engineering, Designing & Manufacturing of cutting edge technology in Environmental Monitoring*



# Who are we??

- *Established in the year 2012, Sunanda has pioneered the concept of Onsite Qualitative Testing and Real Time Reporting in the water quality scenario of India.*
- *Sunanda has successfully delivered 'Smart Water Quality Management Systems' to various state governments of India such as the Governments of Goa and West Bengal. Association with governments of few more states are on the pipeline.*
- *Sunanda in technological partnership with Wagtech Trace20 has initiated 'Smart Water Quality Management Systems' in African countries of – Kenya, Uganda, Ethiopia, Malawi and Ghana. Pipelined are projects with the Governments of Nepal & Myanmar.*
- *Sunanda has successfully delivered state of the art 'Laboratory on Wheels' to the West Bengal Government.*
- *Sunanda has initiated Information – Education – Communication- Awareness drives in association with the Government of West Bengal.*
- *Sunanda is an official training partner of the Paschim Banga Society for Skill Development and currently running training centres in 4 districts of the state.*
- *Sunanda is a registered training partner of 'National Skill Development Council', Govt of India.*





Impeccable Qualitative On-Site Water Quality Monitoring -  
**ONSITE MOBILE ANALYSIS SYSTEM**



**Customised Business Intelligence Tools**

# Smart Water Quality Management System





# Why OMAS????

- ❖ *Qualitative Testing with high accuracy.*
- ❖ *Sample collection and travelling to fixed laboratories changes the physio-chemical properties of water, the bacteriological entities may also get affected, onsite testing initiates instant real time action.*
- ❖ *Highly effective in situations where the samples cannot be brought to labs- such in cases of natural calamities or epidemic out breaks.*
- ❖ *Real time reporting of on-site conditions through customised business intelligence tools.*
- ❖ *User friendly and easy to operate – minimal qualifications necessary for operating the OMAS.*
- ❖ *Light Weight, Water- Weather proof & robust.*
- ❖ *Unlimited power backup for Chemical testing and 5 incubation cycle backup for bacteriological parameters.*
- ❖ *R & D going on to link devices with business intelligence tools via Artificial Intelligence*



# Smart Water Quality Management System Incorporates.....

1. Water Quality Testing – Impeccable & Qualitative
2. Real Time Reporting.
3. Advanced Data Analysis for prompt decision making.
4. Automated Alert Systems



# Impeccable, Qualitative Onsite Water Quality Monitoring- Real time Monitoring – Real time Results





# Real Time Reporting- The Scenario on the ground is now just a click away



On Site Reporting



On Site Testing



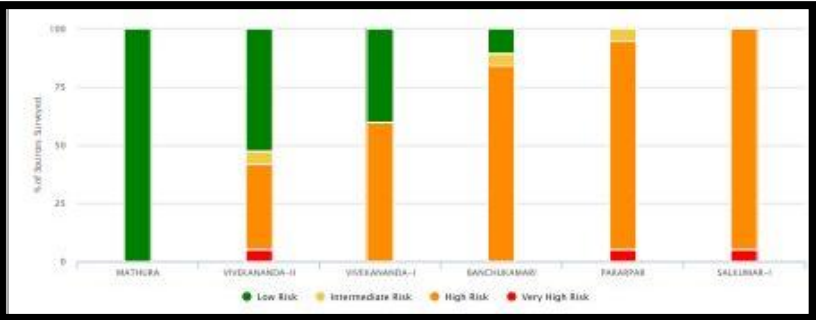
Reports as received and auto customised by the Water Quality Dashboard



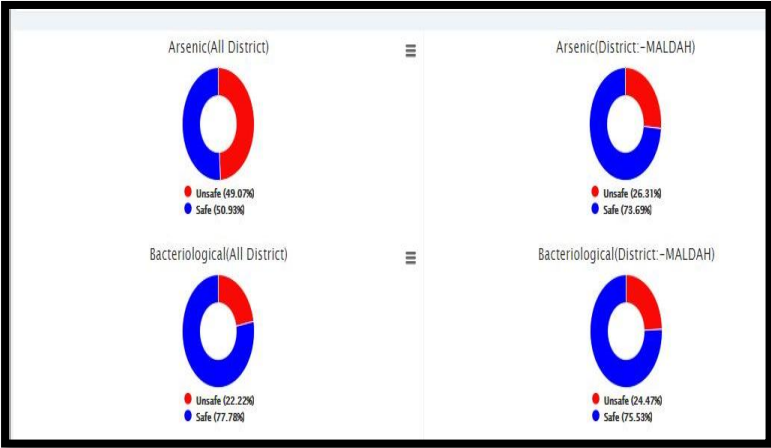
# Data Analytics [1]

Real time result depiction on  
Dashboard- Colour coding to  
indicate ‘Safe/Unsafe’

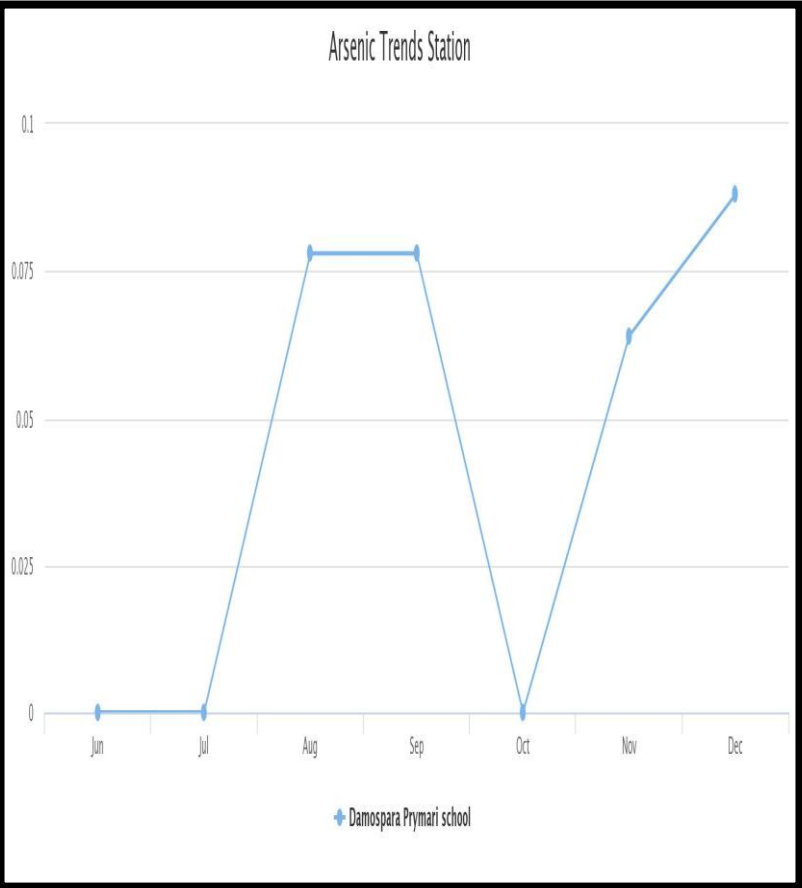
k	Panchayat	School Name	Udise Code	Laboratory	Arsenic	Bacteriological Water Quality	Iron
CHAL-II	DHANGARA BISHNUPUR	Dhangara Bishonpur High Madrasah	19061206704	Balupur WTP site	0.00	1.00	1.73
CHAL-II	DHANGARA BISHNUPUR	Elangi P P Pry	19061206901	Balupur WTP site	0.00	3.00	3.05
CH-II	SRIPUR-II	Raninagar Ssk	19061001801	Paschim Banga Vigyan Mancha	0.03	0.00	3.80
PUR	RISHIPUR	Dhumbalu Pry	19061411702	Bulbul Chandi Sub District Lab	0.00		4.34
PUR	RISHIPUR	Rishipur No 2 Pry	19061411602	Bulbul Chandi Sub District Lab	0.00		4.64
CHAK	MATHURAPUR	Mathurapur Girls Jr High School	19060705403	Paschim Banga Vigyan Mancha	0.00	0.00	0.15
CHAK-I	SILAMPUR-II	Kaikapur S P Pry	19060405701	Dariapur WTP Site	0.00	0.00	0.80
CHAK-I	SILAMPUR-II	Silampur Mgd Pry	19060406001	Dariapur WTP Site	0.00	0.00	4.09
CHAK-I	SILAMPUR-II	Dakshin Silampur Pry	19060405001	Dariapur WTP Site	0.01	0.00	1.79
CHAK-I	ALINAGAR	Rustamnagar Mgd Pry	19060419801	Dariapur WTP Site	0.00	0.00	0.10
CHAK-III	AKANDABARIA	Sahilapur Mgd Pry	19060600102	Dariapur WTP Site	0.01	0.00	0.04



Following Arsenic- We monitor the levels of Arsenic of a particular over a prolonged period of time at a fixed interval frequency to observe variations



Customised Graphical  
Reports on the WQ  
Dashboard





# Data Analytics [2]

Mapping of drinking water sources in a particular district of a particular state in India

## *Iron*

Mn Alert Level: hazardous  
Panchayat1: AKTAIL  
Source Name: DugWell  
GPS Latitude: 25.0753  
GPS Longitude: 88.355  
Mn mgl: 0.3

## *Arsenic*

Arsenic Alert 1: Hazardous  
Panchayat: JALALPUR  
Source Name: Handpump Tubewell  
GPS Latitude: 25.2994  
GPS Longitude: 88.029  
As mgl: 0.2

## *Manganese*

Iron alert level: unsafe  
Panchayat1: DHUMPUR  
Source Name: Handpump Tubewell  
GPS Latitude: 24.9505  
GPS Longitude: 88.353  
Fe Mgl 0: 1.6

Colour Codes are as follows  
Green- Safe  
Yellow- Unsafe  
Red- Hazardous

Sources are provided 'Symbol Codes' according to source types.  
'Colour codes' according to 'Hazard Level'

# Automated Alerts



				<input checked="" type="radio"/> All <input type="radio"/> Safe <input type="radio"/> Unsafe	<input checked="" type="radio"/> All <input type="radio"/> Safe <input type="radio"/> Unsafe	<input checked="" type="radio"/> All <input type="radio"/> Safe <input type="radio"/> Unsafe
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**Dashboard identifies hazardous results & triggers automated alerts to authorities**



**On Site Testing**



**Action taken on ground from alert reports- Disinfection Drive**





# *Awareness Drives by Sunanda*

- *Sunanda is working with the Govt. of West Bengal, in carrying out Information-Education-Communication-Awareness drives in 6 districts of the state.*
- *The target population are – Schools, Anganwadis & Panchayats.*
- *The target population is sensitised about- Health, Hygiene in day to day life, Importance of Safe Drinking Water, Importance of Water Quality Testing, Water Conservation, Safe Water Storage, Rain Water Harvesting, Water Theft, Prevention of Vector Borne Diseases.*



# *Grass Root level Awareness Drives - Schools*



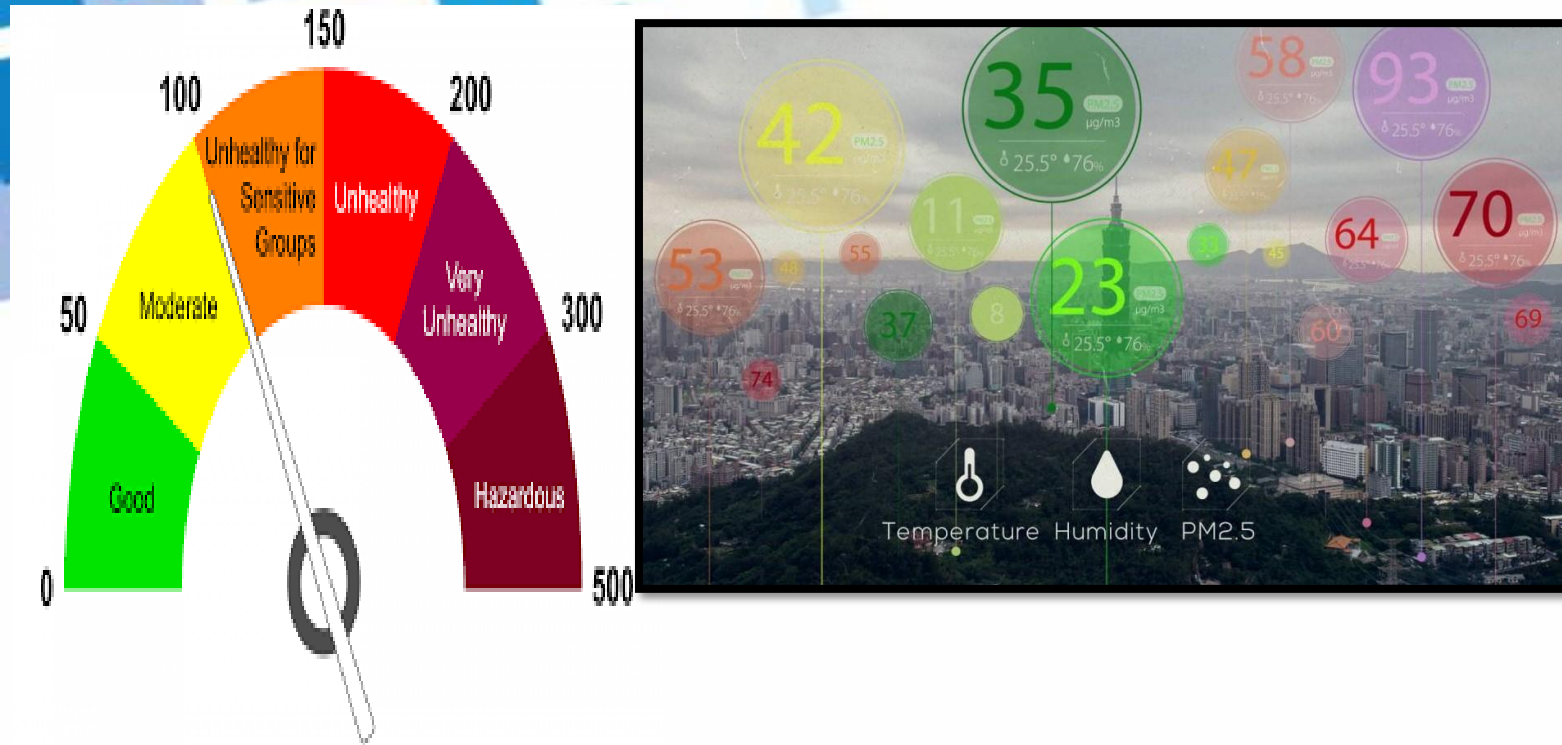


# Grass Root level Awareness Drives - Community





# Our Future Ventures- Environmental Monitoring



*Air Quality Monitoring*

*Soil & Agricultural Monitoring*





*Thank You for your time & patience*



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