

Satsense Solutions Ltd
Remote Sensing | Geospatial Analyses

WATER QUALITY MONITORING SERVICES

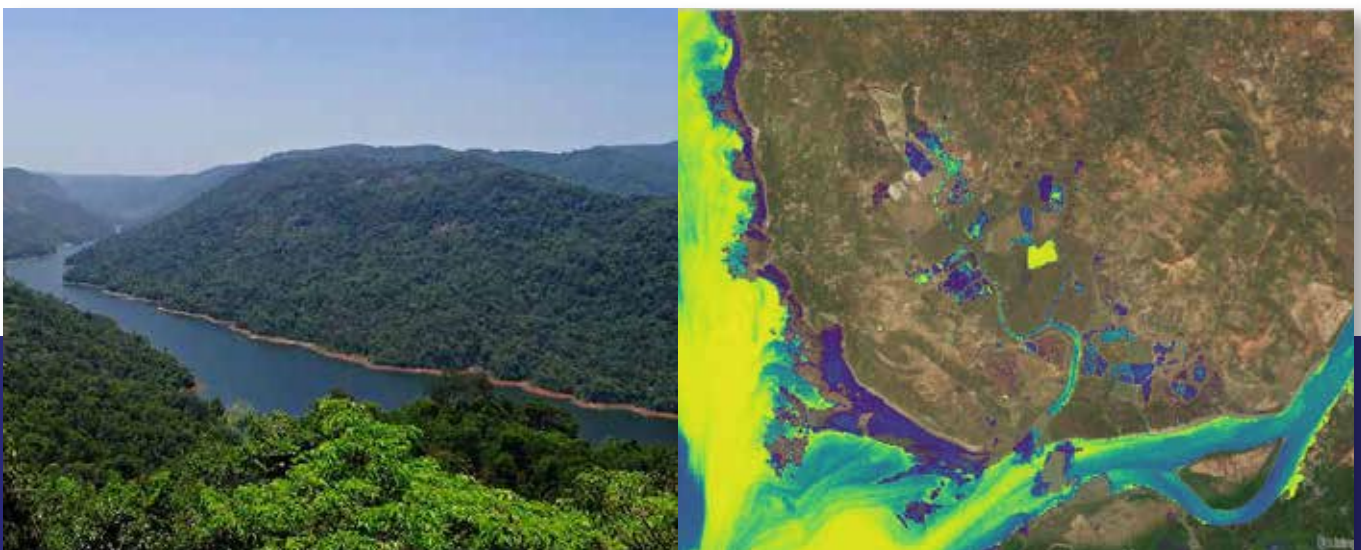
The steady rise in human population has led to an ever increasing demand for safe potable water. This need is more pronounced in dense urban areas where there is a requirement for sanitation and industrial waste treatment. The detection and prevention of water sources being polluted is extremely critical to ensure a constant supply of potable water that meets quality standards.

Satsense® Water Quality Monitoring Services provides a low cost and highly effective solution for monitoring water quality.

What is the Satsense® Water Quality Monitoring Services?

Satsense Solutions Ltd. uses earth observation data from space-borne satellites to determine the water quality of rivers, lakes, reservoirs & other water bodies. This is achieved through assessing the water's inherent optical properties and specific characteristics such as:

- ▶ Total Suspended Matter (TSM), a key indicator for water quality
- ▶ Chlorophyll-a Concentration (CHL), an indicator of algal blooms
- ▶ Light Penetration Depth (Z90), indicates the murkiness of water
- ▶ Colour Dissolved Organic Matter (CDOM), indicator of organic materials
- ▶ Surface Temperature °C , acts as a secondary indicator
- ▶ Other characteristics may be determined based on availability of in-situ data





Water Quality of Aquafarms in Bohai Bay, China - (L) True Color (M) TSM (R) CHL

How are the services provided?

Since data is remotely sensed, monitoring stations and physical infrastructure are not needed on location. Water Quality results can be provided in the form of raw data, GeoTIFFs, KMZ files or detailed reports, as per requirement.

Why use these Services?

Satsense® Water Quality Monitoring Services provides a low cost and highly effective solution for regularly monitoring water quality. Some of the other benefits are as follows:

- ▶ Physical infrastructure & monitoring stations are not required onsite, thereby generating huge cost savings
- ▶ Large scale & scope of water quality monitoring as 1000s of sites can be monitored instantaneously and more frequently
- ▶ Ability to obtain cross sectional data across swaths which would help in avoiding outlier errors
- ▶ In many cases these solutions would be the only feasible method of obtaining such information

Who can use this Service?

Satsense® Water Quality Monitoring Services can be used by a variety of businesses and governmental bodies:

- ▶ Municipalities to monitor the quality of potable water supplied
- ▶ Local governments to detect untreated & illegal sewage flow entering water bodies
- ▶ Regulators to monitor output from sewage treatment facilities and industries with effluent discharge, in order to ensure compliance
- ▶ Aquafarms to monitor water quality for better yield and to detect harmful algal blooms
- ▶ Desalination plants, nuclear plants and other Industries that need to monitor the water quality of discharge at a larger scale

Satsense Solutions Ltd. applies Remote Sensing technology to provide unique & innovative business and governance solutions.

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Disclaimer: Remotely sensed data are generally recorded under changing environmental conditions, which might impact the accuracy of output data. Although results are based on well established methods and tools are thoroughly validated for accuracy, remotely sensed data are subject to natural variations of the atmosphere, local conditions etc. therefore Satsense Solutions Limited cannot take any responsibility caused by the usage and interpretation of remote sensing products. As with all measuring tools / systems, calibration based on in-situ data is recommended.

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