

Egyptian Ministry of Health and Population Utilized iLotusLand Platform to Remotely Monitor the Water Quality of Nile River



TIME
2024



LOCATION
Egypt



CLIENT
Egyptian Ministry of Health and Population

ABOUT THE CLIENT

The Ministry of Health and Population of Egypt, established in 1936, is the government body responsible for the country's public health. Based in Cairo, it oversees various public health services, including primary healthcare, disease prevention, maternal and child health, and environmental health. In this project, the Ministry aims to monitor the water quality of the Nile River by installing three Surface Water Monitoring stations along the river, ensuring the water remains of a high standard for use in drinking, agriculture, and maintaining ecosystem health.



THE CHALLENGE

Data security is a significant concern in this case. As the Egyptian ministry needs to remotely monitor data from three stations on a single dashboard. But in the normal approach, transmitting all the data to the oversea public server could potentially violate the national data security policy. Therefore, there is a requirement to keep the data secure on the client's premises, while still allowing for data centralization and remote monitoring across all stations



THE SOLUTION

iLotusLand with the valued partner - Egypt Scientific has offered iLotusLand Platform for Environment (On-Premise), which is the software solution installed inside the client's server upon which all the data of all the stations are transmitted. This method helps to fetch all the data on one single dashboard accessible by Web & Mobile Apps. Enabling the client to remotely and centrally monitor all sites while ensuring the data remains secure on the client's premises. And eliminating the need to send data to an overseas cloud server, which could pose a security risk to government agencies. Additionally, the platform offers various features: Real-time monitoring, Graph display, Camera connection, Alarm, Reporting, WQI, Document storage, API Sharing, and User authorization,... to enhance the day-to-day operation.

Application	Surface Water
Number of stations	3
Measured parameters	Actual Conductivity, Salinity, Total Dissolved Solids, pH, Ammonium, Ammonia, Chlorophyll Fluorescence, Temperature, Dissolved Oxygen Concentration, BGA-PC Fluorescence, and FDOM
Instrument models	Aquatroll 500 (In-Situ)
Datalogger model	Hydromace XCi (In-Situ)
Software model	<u>iLotusLand Platform for Environment (On-Premise)</u>



THE RESULT

Following the successful installation of the platform, the client is now able to just stay inside the office and remotely monitor data from three surface water stations in real-time. The platform provides a centralized dashboard, accessible via web and mobile apps, allowing for efficient tracking and analysis of water quality parameters. This enables the client to make informed decisions and ensure effective management of the water stations, all while maintaining data security on-site.

“ iLotusLand is an environmental IoT company offering data-driven environmental monitoring solutions for better decision-making. With our plug-and-play stations, we monitor a wide range of parameters in Wastewater, Surface Water, Groundwater, Drinking Water, CEMS, AAQMS, etc. And iLotusLand data analytics platform delivers actionable insights for government, industries, and communities. Our commitment is to be a key player in fostering a sustainable future through intelligent environmental monitoring solutions and data science. ”