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Asian Disaster Preparedness Center

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Asian Disaster Management *News*

ENGAGING THE PRIVATE SECTOR IN DISASTER RISK REDUCTION

Building Resilience through Innovation and Partnerships

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Features

PRIVATE SECTOR DRIVES TECHNOLOGICAL INNOVATION FOR DISASTER RISK REDUCTION

Innovative *Internet of Things* -platform *ReadyMIND* helps reduce flood risk.

INCREASINGLY FREQUENT AND INTENSE DISASTERS CAUSE LIVES, property and businesses to be destroyed. North East India is no stranger to this phenomenon. With annual flooding in multiple states, there is an urgent need for information, knowledge and stakeholder management, in addition to capacity building. Fortunately, as challenges have increased, so has the ability to address them with technological innovations from the private sector.

AGT International's integrated water resource management solution is based on *ReadyMIND*, an innovative *Internet of Things* (IoT) -platform that monitors, simulates and predicts floods and droughts. The same approach can be extended beyond water management to most other natural disasters.

Strengthening public private partnership

Water-related crises are most effectively and efficiently managed when the public and private sectors work together. AGT's solution enables private sector participation in several ways. Because the solution can be cloud-based, the private sector can easily contribute to or access data, enriching it or using it for their own research.

Insurance companies could rely on the applications and data to conduct flood risk analyses while urban real-estate developers could use the same data to improve planning. In fact, in areas like North East India, which are entirely flood risk zones, the public and private sectors could jointly use the solution.

Corporations could take advantage of the application layers such as the Unified Situational Awareness Picture (USAP) as well as modeling and simulation. They could also use the platform to interact more closely with the governments, academia and other public sector organizations during crises. The open architecture encourages third parties to develop applications to run on top of the platform as partners in innovation.

Preventing floods

ReadyMIND helps mitigate the impact of floods and in some cases even helps prevent them through its innovation in information and knowledge management, stakeholder management, and capacity building. Its open architecture, applications and cloud accessibility facilitate public private sector cooperation and advances.

ReadyMIND is the first platform of its kind integrating data collection, aggregation, prediction, simulation, real-time visualization and crisis management. Its key advantages include the opportunity to reduce flood risk and minimize loss of life, property and commerce; facilitate public private sector collaboration resulting in a better, more coordinated response to floods; and drive operational efficiencies to reduce routine operations and maintenance costs.
big picture and smaller details. ■

Figure AGT International


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Managing the water *Public and private sector cooperation can result in a more coordinated response to floods.*

ReadyMIND 5-layer model

The five-layer model highlights the key capabilities of the integrated water resource management solution *ReadyMIND*.

Sensing & Information

Real-time data is collected and monitored from all relevant sources including sensor and camera networks, SCADA (supervisory control and data acquisition) systems, satellites, weather forecasts, agency databases and the web. Because *ReadyMIND* is an open platform, it can integrate almost any type of sensor, database or third-party software.

Unified Database

ReadyMIND aggregates and standardizes the collected data into an integrated data warehouse which is optimized for data sharing, visualization and advanced analytics.

Modeling & Simulation

Decision support tools including simulations and "what if" -scenarios help officials evaluate different options. They also recommend preventative measures and best-case allocation of limited resources as well as highlight ways to optimize water infrastructure operations.

Unified Situational Awareness Picture (USAP) & Decision Support

A comprehensive, multi-layered picture of the overall water situation in real time is displayed on a geographic information system (GIS) map with layered views that enable users to see both the big picture and the details.

Integrated Operations & Crisis Management

By providing the right information to users in real time, this layer facilitates cross-agency collaboration. Operations can be directed using a hierarchical command structure to strategize a response to natural disasters.

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