

Improving Access to Information in Emergency Response Situations



Customer

People in Need (PIN) is a Czech based non-profit, non-governmental humanitarian organisation that has been working in Cambodia since 2008 providing development and emergency assistance.

The World Food Programme (WFP) is the food-assistance branch of the United Nations and the world's largest humanitarian organisation addressing hunger and promoting food security. WFP has been working in Cambodia since 1979, initially helping the country recover from conflict and then focusing on sustainable development.

Problem

Cambodia experienced brutal conflict and civil unrest leaving up to 3 million people dead and paused economic development. Despite strong economic growth Cambodia remains one of the poorest countries in the region, with approximately 30 per cent of its population living below the national poverty line and has also been ranked as the 9th most disaster prone country in the world, facing recurrent floods, droughts and tropical storms.

“Working with thinkWhere, we have been better able to support national efforts to consolidate and centralise visualisations helping to prepare and respond to disasters in one platform.”

Krisna Keo
IT Developer and
PRISM Team Leader

| Improving the Efficiency of Access to Information in Emergency Response Situations

Solution

With financial support from the German Federal Foreign Office and the United States Department of Agriculture, and on behalf of a partnership between the WFP and PIN, thinkWhere developed a Disaster Management Information System (DMIS) for the Royal Government of Cambodia.

The thinkWhere development provides a mapping front end visualisation tool that builds on WFP's Platforms for Real-time Information Systems (PRISM). Essentially a data management, sharing, and visualisation initiative, PRISM's strength is its ability to create flexible and highly integrated systems, providing the ability to draw input data from various sources and output to map based platforms and dashboards.

thinkWhere developed a cloud hosted AWS (Amazon Web Services) infrastructure making the platform easy to deploy and administer. Using open source tools and technologies ensures the DMIS can be easily integrated with third party systems and data and, with an easy to use interface, DMIS offers a functional and information rich mapping service that can be accessed anywhere, anytime using a simple web browser.

In Action

The thinkWhere DMIS will be primarily used by the National and Provincial Departments for Disaster Management, which currently have access to PRISM decision-making software in situations rooms across 13 provinces, with expansion planned to 19 (out of a total of 25 provinces) by the end of 2018.

The DMIS is designed for use as a tool for disaster scenario visualisation and will show weather alerts, historical disaster information, information on vulnerable populations and infrastructure and real time disaster information from field staff. A minimum of two staff in each province will be trained in the use of the DMIS learning how to interpret data from the platform and provide response recommendations accordingly. The system can also be used for longer term predictions informing the disaster planning process.

Although primarily intended for use via a laptop or desktop in an office setting the thinkWhere developed DMIS offers full mobile functionality for use on tablets and smartphones in the field.

Benefits

- Flexible and responsive solution development methodology
- Integration with existing solutions to form part of the larger overall framework of disaster management
- Consolidation and centralisation of data from different sources
- Intuitive mapping interface for monitoring and display of live and historical disaster information

Summary

With a population that is very vulnerable to the effects of disaster the DMIS will form part of the larger overall framework of disaster management in Cambodia. A visualisation and data ingest tool, the DMIS will be used to centralise and display information coming through the PRISM solution, and from other sources, in a single platform. Trained staff will use the DMIS to interpret data and provide appropriate response recommendations.

“We worked closely with thinkWhere from design, through to planning and deployment, and we were more than impressed with their communication, flexibility and dedication throughout the project.”

James Happell
Global Innovations Manager
People In Need – Cambodia

thinkWhere use leading edge cloud, Open Source and GIS technologies, to develop innovative software and solutions, backed by a wide range of GIS implementation, consultancy, support and training services.

They provide an online platform for storing, sharing and using maps and geographic data, and help solve real-world problems using open data and open technology.