

NIPPON KOEI



Flood Risk Information Platform

Real-time Inundation Risk Information, Combination with Cloud Technologies



Hazard

Flood

Solution Purpose

Prevention & Mitigation Preparedness Response Recovery

Solution Theme

Research & Investigation Risk Assessment Infrastructure Technology

Technology Subject

Site Investigation Technical Research & Development Hazard Identification Risk Monitoring River & Basin Dam & Reservoir Coast Sabo

Advantages

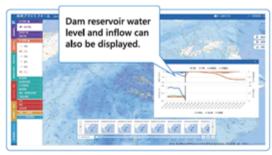
This platform collects and analyses meteorological and hydrological information, inundation and landslide disaster information, and local infrastructure information in real-time, and consolidates and displays the data on maps.

Linkage with existing early warning systems and various cloud systems will be provided. Nippon Koei's hi-tech analyses and forecast can be integrated as optional services to support disaster prevention and response, and evacuation leading to the safety and security of the region.

Solution Illustrated



Displays real-time inundation analysis results and inundation sensor information (additional feature)



Check various data of rivers and dams while observing rain movement



Simultaneous display of various hazard maps and rain conditions nationwide



Dual screen display

Background

Various disaster risk information in high-resolution are recently available in Japan due to monitoring and forecasting technologies developed by central government agencies. However, there is no integrated interface system. Officers in local government units need to frequently access to various data sources, to quickly make decisions, and to take actions.

The proposed platform system consolidates and displays various individual disaster risk information on a map and provides real time information necessary for disaster prevention and response. The system can have linkages with cloud data. Integration of inundation simulation and satellite imagery analysis can be achieved, and precise disaster risk information will be provided. Nippon Koei supports clients' DX through the proposed platform for disaster risk reduction and management and contributes to strengthen regional resilience to disaster.

Exposition of the Solution

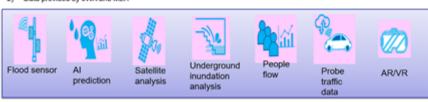
The standard functions include analyzed water level, flow volume, and inundation risk based on data of rainfall, river shape, and geography. The add-on functions include satellite analyses, flood sensors, and other solutions customizable according to clients' demands.





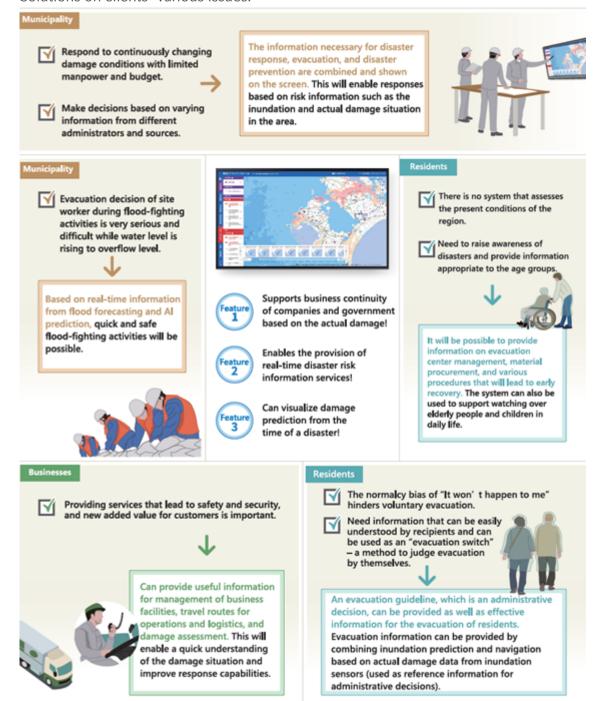
RRI Model, developed by Public Works Research Institute, Japan
Data provided by JWA and MLIT

ADD-ON



Achievements of Examples

Real- time risk information by Nippon Koei's analysis and prediction technologies. Solutions on clients' various issues.



Other References

Platform Development to Provide Disaster Prevention Information and Analysis/Prediction Data | Solutions | DX | NIPPON KOEI (n-koei.co.jp)

Corporate Profile

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