

Advancing Next-Generation Cloud and Precipitation Satellite Observation: Japan- U.S. Public–Private Collaboration

Satoru Demoto, Founder & CEO of Aqunia

May 2026



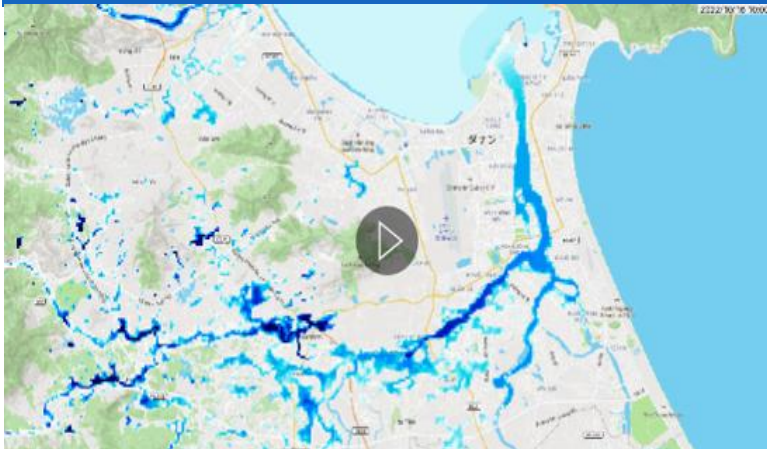
3 Solutions – Global Hydrological Forecasting for Local Decisions

Days ahead

Decades ahead

Aqunia Flood

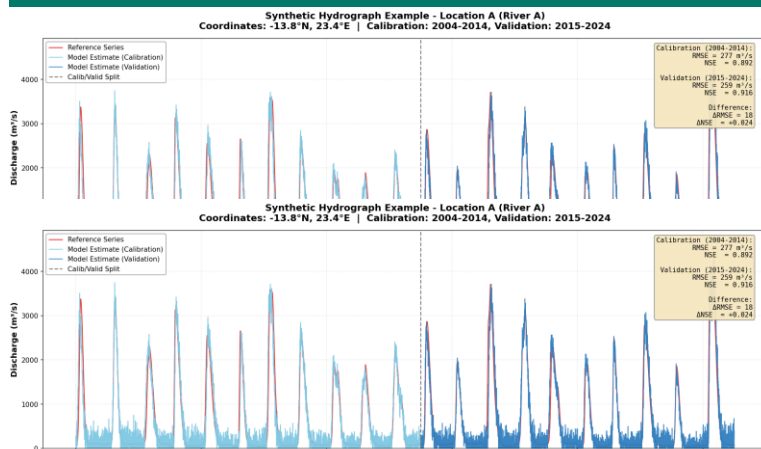
Flood EWS & emergency response



Govts · Disaster agencies · Infra operators

Aqunia Water

Water resource planning & operations

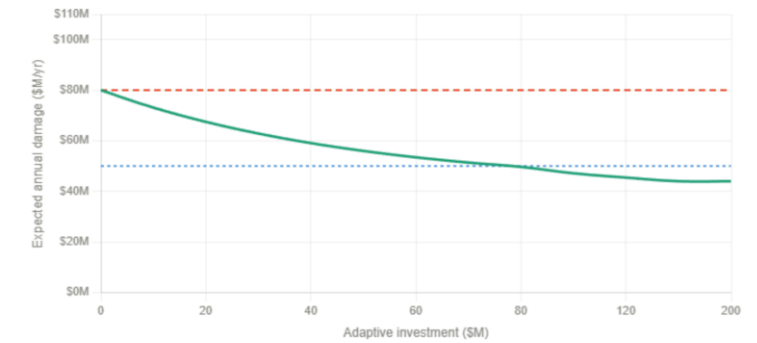


Water agencies · Energy operators · Ag orgs

Aqunia Climate

Climate impact assessment & adaptation

CASE A — Expected annual damage level vs. adaptive investment



Manufacturers · Financial institutions · Govts

Technology Foundation

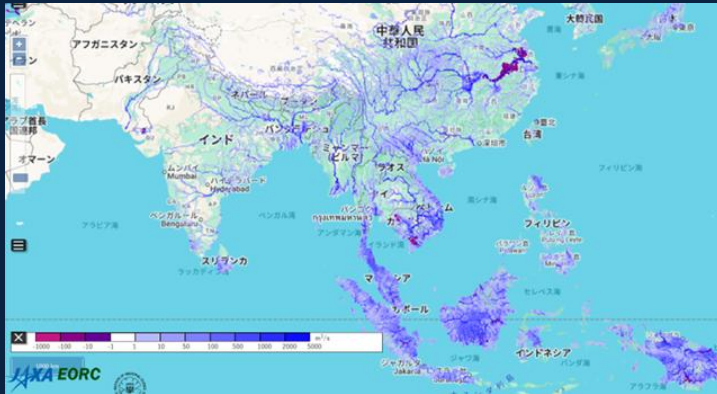
Research outcome of "Today's Earth" by JAXA and the University of Tokyo

Global scale >> Local precision & Built to operate

01

Global Scale

Nationwide & transboundary coverage

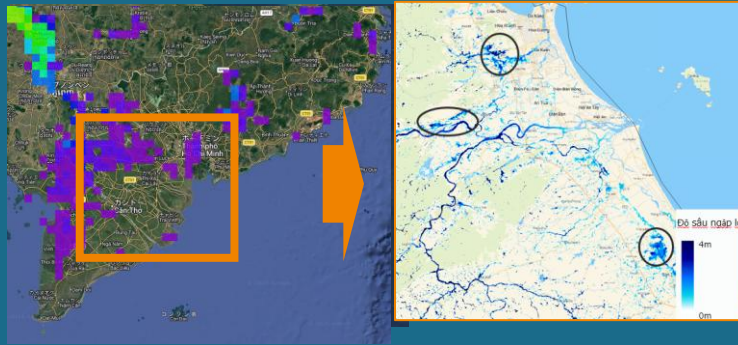


by JAXA and U-Tokyo

02

Detail Flood Inundation

High-resolution inundation maps



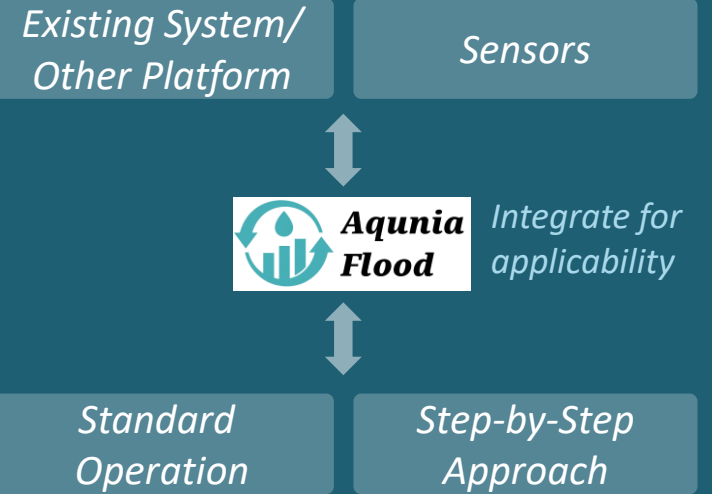
Localization
Technology

by  **Aqunia**

03

Built to Operate

From forecast to decision



From R&D to Global Deployment

Technology Development

Tokyo Metropolitan Gov.
Space Products Development Grant
Global Flood Forecasting System Integrating Satellite Data

PwC Foundation
Grant 2025 (Earth Environment / Disaster Prediction)
Integrated Flood Forecasting System for Social Implementation

Core Technology : Localization
 Patent pending

Field Deployments

SE Asia

Vietnam

Flood EWS · METI
Global South
w/Spectee

Central Asia

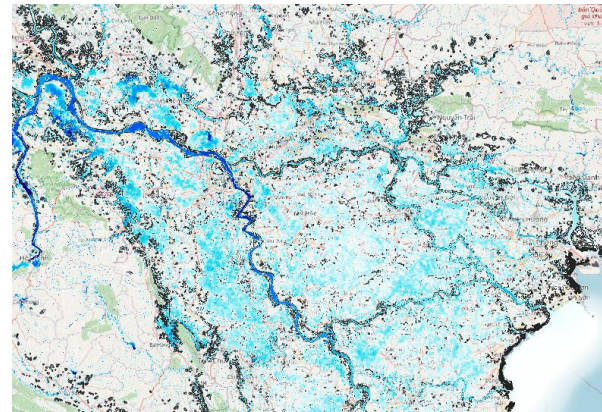
Kyrgyzstan

Climate risk ·
& EWS

Africa

Zambia

JICA digital
technology pilot
w/ME-Lab Japan



Satellite data is the foundation we build on

Ground gauges = limited, only points



Satellites = full coverage

GSMaP / IMERG · Rainfall

SWOT · River water level

PMM · 3D precipitation (next gen)

»» Better understanding → Model enhancement

From observation to decision

Satellite observation — rain & river, even where gauges are scarce

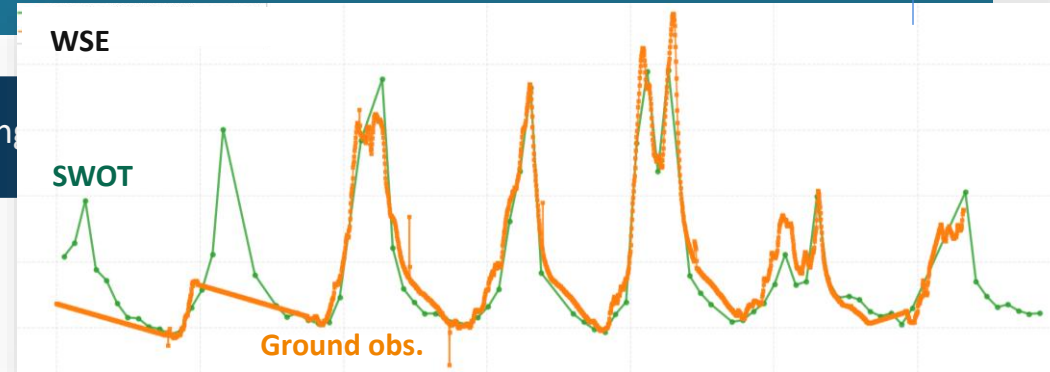


Historical estimation — reconstruct hydrological cycle & past discharge



Forecasting — flood & water resource prediction

Decision — water planning



JAXA / NASA: upstream observation /global simulation

→ Aqunia: value to the field

Thank You

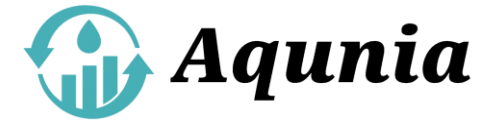
We are grateful for the opportunity to share our work.

If anything resonates with challenges you are facing,
we welcome the conversation.

Contact

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Global Hydrological
Forecasting

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