AidWisely

Space-Enabled Prioritization and Verification of Disaster Cash Assistance

Presented by Team AidWisely

The Challenge

When disaster strikes, who needs help first?

- Disasters can affect thousands of households.
- Resources and assessment teams are limited.
- Decision-makers need reliable information to prioritize assistance.



PHOTO: HANDOUT/PANDAN-MDRRMO



PHOTO: MARK GENESIS ABELLA / SMARTER MULTIMEDIA SERVICES



PHOTO: USAID PHILIPPINES

Our question: How can space technology support timely, fair, and needs-based disaster assistance?

The Problem on the Ground

What We Learned from a Barangay Official

Current process

Conduct pre- and post-disaster assessments → **Identify affected households** → **Prioritize the most affected families for relief goods**

Challenges identified in our interview

- **Duplicate entries of affected families.**
- **Some households are absent during assessment, even when their homes are affected.**
- **Historical records of affected families are important for understanding past disasters.**

Source: Initial interview with a barangay official.

The Problem on the Ground

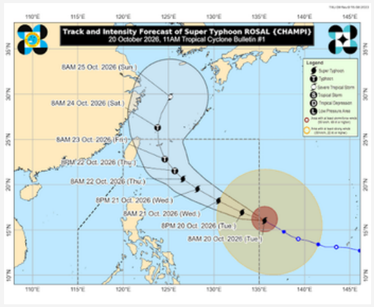
Key insight: How can we improve the information available to decision-makers without replacing existing barangay assessment procedures?

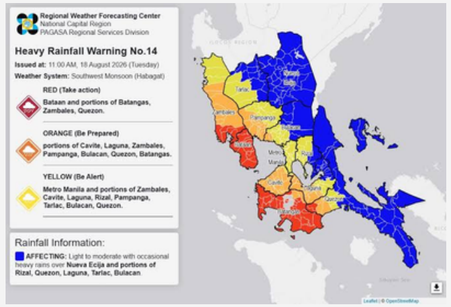
The Societal Challenge

Connecting Disaster Impacts to Assistance Decisions

Existing information comes from:

Weather forecasts and hazard warnings





Local reports and field assessments





Household and administrative records





Population and vulnerability data





The Societal Challenge

The gap: These sources need to be connected to help identify potentially high-impact areas and cases requiring additional assessment

AidWisely's goal: Provide an independent, space-based evidence layer to support assistance prioritization and verification.

Why Space Technology?

From Earth Observation to Actionable Evidence

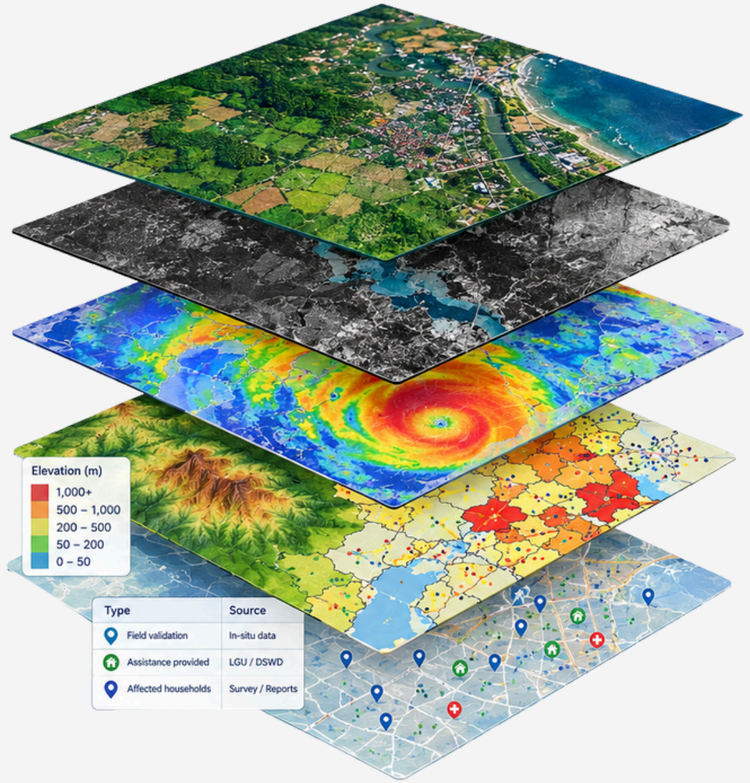
Optical Earth Observation
- Observe visible changes in land, agriculture, and settlements.

Synthetic Aperture Radar (SAR)
- Assess possible flooding and surface changes despite cloud cover.

Weather and Hazard Information
- Understand potential exposure to typhoons and heavy rainfall.

GIS, Elevation, and Statistical Data
- Add geographic, population, and vulnerability context.

In-situ and Administrative Data
- Support validation and authorized assistance verification.



Satellite observations provide a wider view of possible disaster impacts; local data and field validation help translate that evidence into decisions.

Introducing AidWisely

AIDWISELY CUSTOMER VALUE CHAIN

From Space Data to Timely, Equitable Cash Assistance

1 ANTICIPATE

Identify potential high-risk communities before impact



Use typhoon or heavy rainfall forecasts, population, vulnerability, elevation, and hazard data to identify potentially high-risk communities before impact.

KEY INPUTS

- Weather Forecasts
- Population
- Vulnerability
- Elevation (DEM)
- Hazard Data

2 OBSERVE

Assess actual impacts after the event



Use optical imagery, SAR, weather, and ground data to assess actual impacts such as flooding, agricultural damage, and affected settlements.

KEY INPUTS

- Optical Imagery
- SAR Imagery
- Weather Data
- Ground Data

3 PRIORITIZE

Identify where assistance should be considered first



Combine hazard, exposure, vulnerability, and observed impacts to generate an Assistance Priority Score and identify where assistance should be considered first.

OUTPUT

- Assistance Priority Score & Priority Map

4 VERIFY

Flag cases that require further review



Compare authorized reports or claims with independent satellite and hazard evidence using a Claim Consistency Score to flag cases requiring further review.

OUTPUT

Claim Consistency Score

- Consistent (Low Risk)
- Uncertain (Needs Review)
- Inconsistent (High Risk)

5 DISBURSE

Support timely and equitable cash-assistance disbursement



Provide authorized agencies with evidence-informed priorities to support timely and equitable cash-assistance disbursement.

OUTCOME

- Timely Response
- Equitable Assistance
- Efficient Use of Resources
- Stronger Accountability

VALUE CREATED FOR OUR CUSTOMERS

GOVERNMENT AGENCIES
Evidence-based intelligence to improve targeting, verification, and decision-making.

LGUs & FRONTLINE TEAMS
Clear priority areas to focus field validation and response efforts.

NGOs & HUMANITARIAN ORGANIZATIONS
Better coordination and resource allocation to reach more communities in need.

AFFECTED COMMUNITIES
Faster, fairer, and more transparent assistance when they need it most.

Innovation: What Does AidWisely Add?

Transforming Disaster Mapping into Assistance Decision Support

Existing Information	AidWisely's Contribution
Hazard forecasts	Identify potentially exposed communities
Satellite observations	Assess observable impacts
Population and vulnerability data	Add context to potential needs
Administrative records and claims	Flag inconsistencies for review
Field Assessments	Validate findings and inform decisions

Two proposed outputs

1. **Assistance Priority Score**
   - Supports prioritization of areas and cases for assessment.

2. **Claim Consistency Score**
   - Flags claims requiring further review; it does not prove fraud or determine eligibility.

Innovation: **Multi-source data fusion** connects disaster observation with assistance prioritization in one workflow.

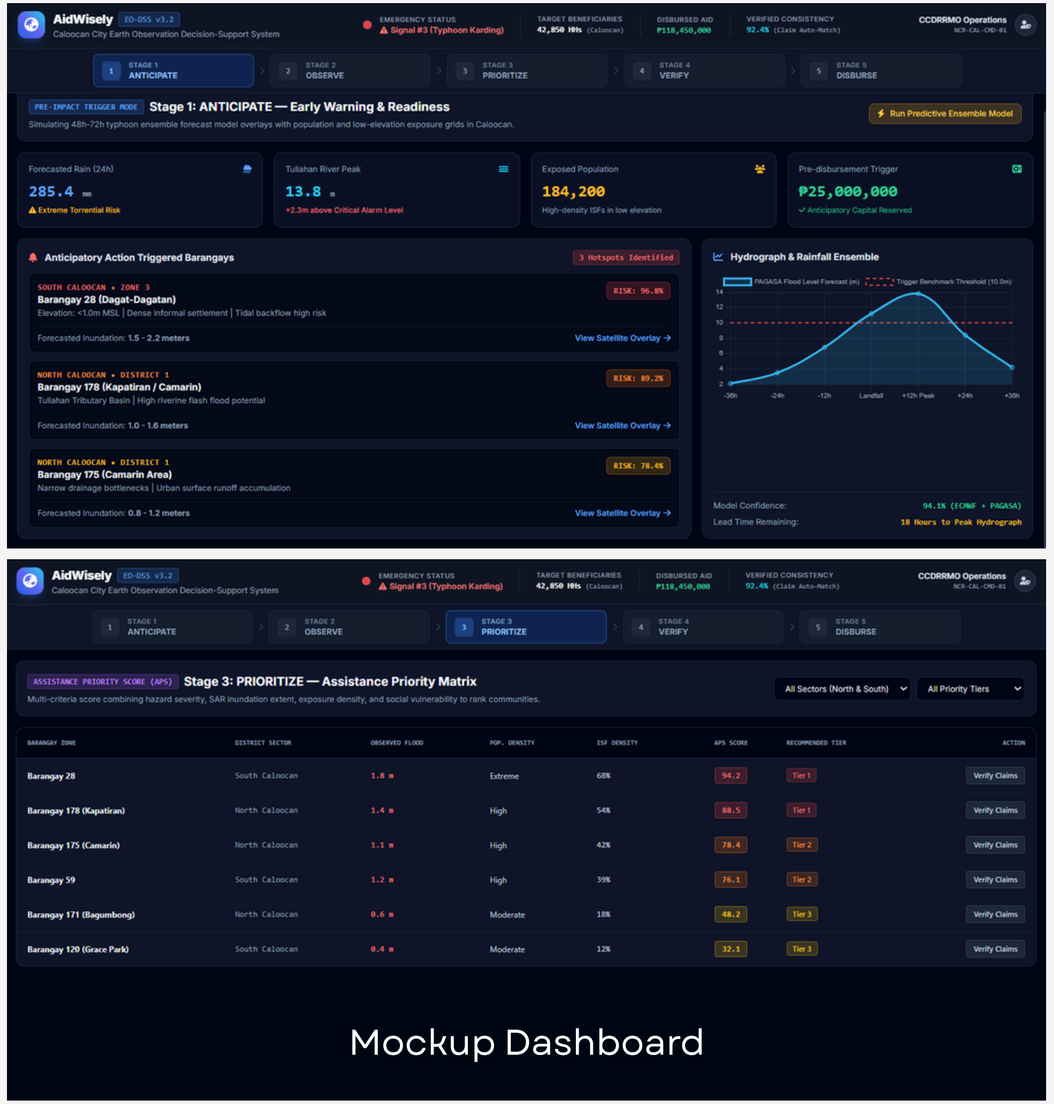
Demonstration and Expected Impact

How Could AidWisely Work in a Real Disaster?

Potential benefits

- Better-informed deployment of assessment teams
- More structured evidence for prioritization
- Improved coordination of available information
- More transparent, evidence-informed assistance decisions

Evaluation: Compare satellite-derived indicators with available field assessments and measure how effectively the system identifies areas requiring follow-up.



Mockup Dashboard

Conclusion

Better Evidence for Better Disaster Assistance

AidWisely connects:

- Space-based observations
- Weather and hazard information
- Population and vulnerability data
- Authorized administrative records

Together, these sources can support decision-makers in identifying where to look first, what to verify, and how to prioritize limited resources.

Our vision: Faster, fairer, and more needs-based disaster assistance.

“AidWisely does not replace the people who decide. It gives them better evidence to decide.”

Thank you for listening!



Our Team

Julie Ann G. Delda | Girlie G. Cortez | Janine S. Zabate | Ron Sebastian R. Rebaño