

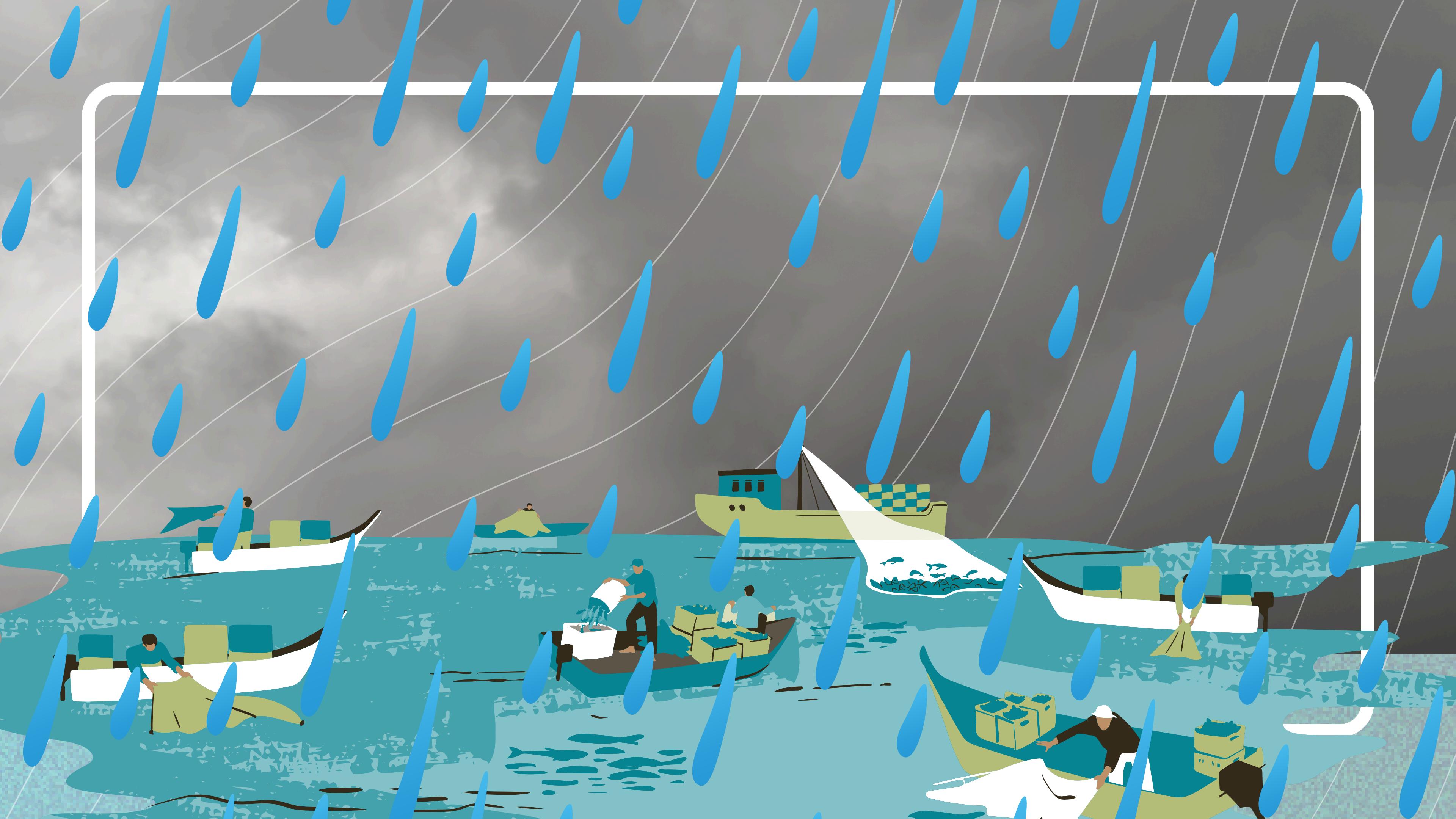


**Equipping Preparedness and Mitigation for
One Response.**

Aaron, Lee, Jodi, Gabe, Yel



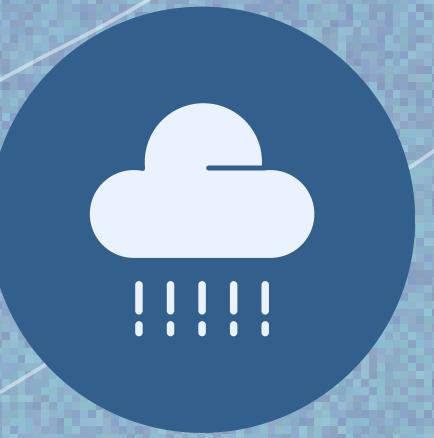
KaKano



**And that's the
truth for a lot of
Filipinos.**

**Amidst the storm...
Relief arrives
but not always where it's needed.**





The Philippines ranks among the hardest-hit countries in Typhoon Kalmaegi, with 377,000+ people displaced and 12,600+ homes and schools damaged, exposing gaps in relief operations ahead of Typhoon Fung-Wong (ReliefWeb, 2025).

Affected families spend an average of 4–6 hours in evacuation centers per day while awaiting assistance.

iREADY

This is where
it begins.





**A Web-Based Dashboard for Pre-Storm Relief Planning
and Optimization for Improved Resilience.**

Objectives

iReady provides a **centralized dashboard** that helps LGUs and NGOs plan relief **before the storm hits.**

It **connects socioeconomic data**, and **typhoon tracking** information to predict and classify areas based on vulnerability assessment for fair and efficient relief distribution.

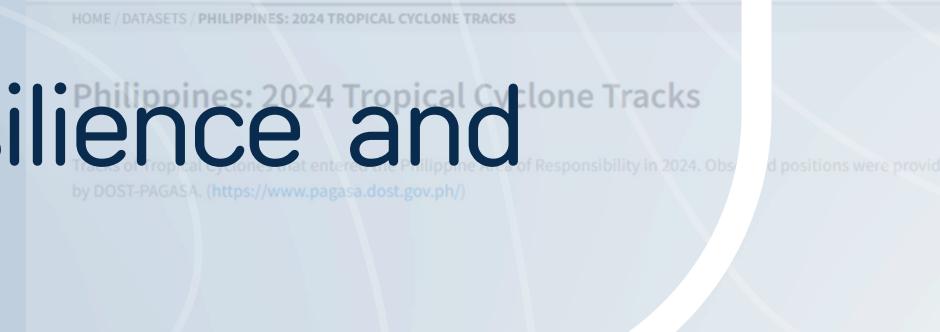
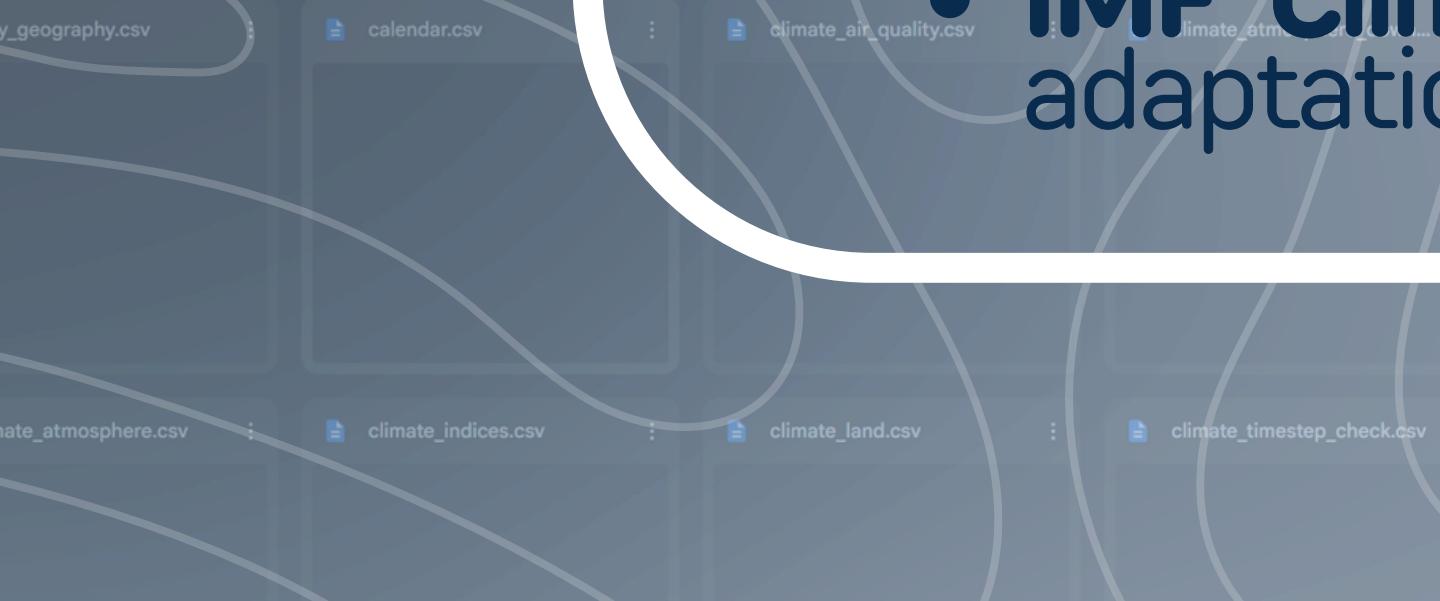


Datasets

To make every decision data-driven, iReady combines trusted, real-world datasets:

- **GeoJSON:** Typhoon tracks
- **Project CCHAIN:** Socioeconomic indicators to identify vulnerable communities
- **IMF Climate Dashboard:** Resilience and adaptation data

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iREADY

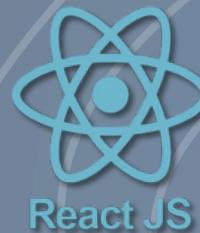
Solution Overview

- Fast, fair, data-driven planning that turns reactive response into readiness.
- Centralizes LGUs and NGOs, expandable beyond Metro Manila.

Keywords: pre-storm planning system, vulnerability classification, relief organization allocation



Methodology



pandas



WEB APPLICATION SETUP

pandas, Tailwind CSS, Next.js, Node.js



COLLATION OF EXISTING DATASET

CSV-processed, web-integrated, and visualized for predictive relief planning.

iREADY

Methodology

DATA ANALYSIS

Vulnerability Ranking Dashboard

Leaflet



INSIGHTS

Vulnerability Score Assessment

pandas, scikit-learn



RECOMMENDATIONS

User Social Feature

makes planning between users easier



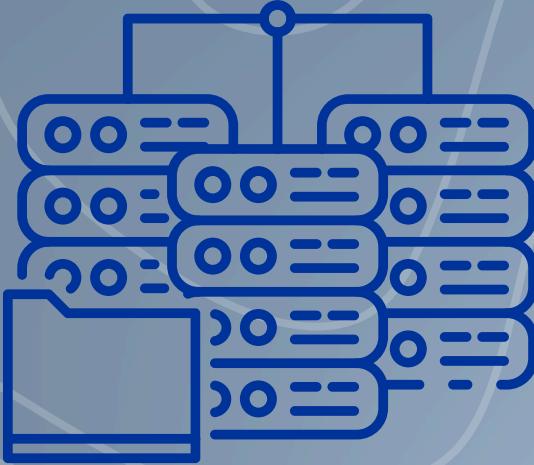
iREADY



LIVE DEMONSTRATION

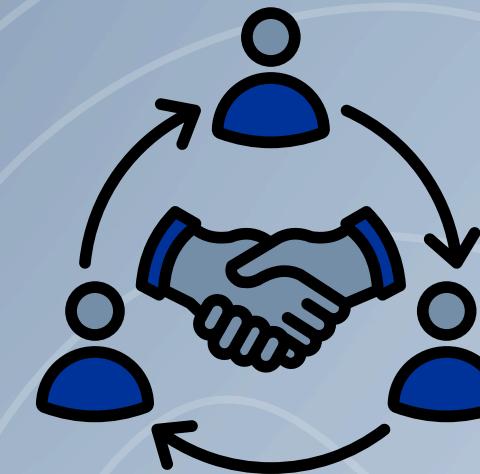
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NEXT STEPS AND FUTURE POTENTIAL



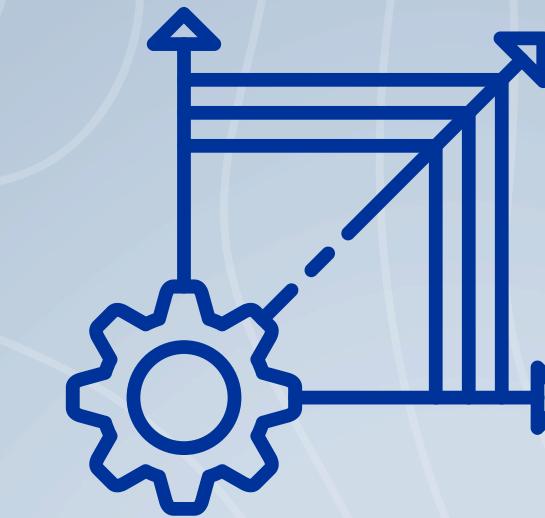
Data Expansion

- Up to date typhoon data
- Specific pinpoints of baranggay facilities and related matters



Collaboration

- Partnerships with Barangays and Non-government organizations



Scalability

- Expand to other areas in the Philippines other than Metro Manila
- Barangay Level /

iREADY

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THANK
YOU!

References:

Guardian News and Media. (2015, March 27). Does humanitarian aid mend communities or break them?. The Guardian. <https://www.theguardian.com/global-development-professionals-network/2015/mar/27/impact-communities-distribution-aid-typhoon-haiyan-philippines>

Ismanto, R. D., Fitriana, H. L., Manalu, J., Purboyo, A. A., & Prasasti, I. (2023). Development of Flood-Hazard-Mapping model using random forest and frequency ratio in Sumedang Regency, West Java, Indonesia. *Geomatics and Environmental Engineering*, 17(6), 129–157. <https://doi.org/10.7494/geom.2023.17.6.129>

PAGASA. (n.d.). <https://www.pagasa.dost.gov.ph/information/about-tropical-cyclone>

United Nations Office for the Coordination of Humanitarian Affairs. (2025, November 7). Philippines: Tropical Cyclones Kalmaegi (Tino) and Fung-Wong (Uwan) – Flash Update No. 1, 07 November 9 PM local time. ReliefWeb. <https://reliefweb.int/report/philippines/philippines-tropical-cyclones-kalmaegitino-and-fung-wonguwan-flash-update-no1-07-november-9-pm-local-time>

World Health Organization. (n.d.-b). Typhoon Haiyan (Yolanda). World Health Organization. [https://www.who.int/westernpac/emergencies/typhoon-haiyan-\(yolanda\)](https://www.who.int/westernpac/emergencies/typhoon-haiyan-(yolanda))





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