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The open mapping movement and a more resilient future

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Humanitarian OpenStreetMap Team (HOT) is an international team dedicated to **humanitarian action** and **community development** through **open mapping**.



HOT is working towards a world where...

Community needs are addressed through mapping

Everyone can access, and contribute to, the map

Open map data is available and used for impact



How can open mapping support humanitarian response?

Each year, disasters around the world affect, displace or kill millions of people.

Missing maps can result in aid not reaching communities affected by disasters.

Humanitarian mapping ensures that decision-makers are able to rely on maps and geodata to better allocate resources to respond to disasters and to better reach target communities.



How can open mapping support development programming?

Mapping for development

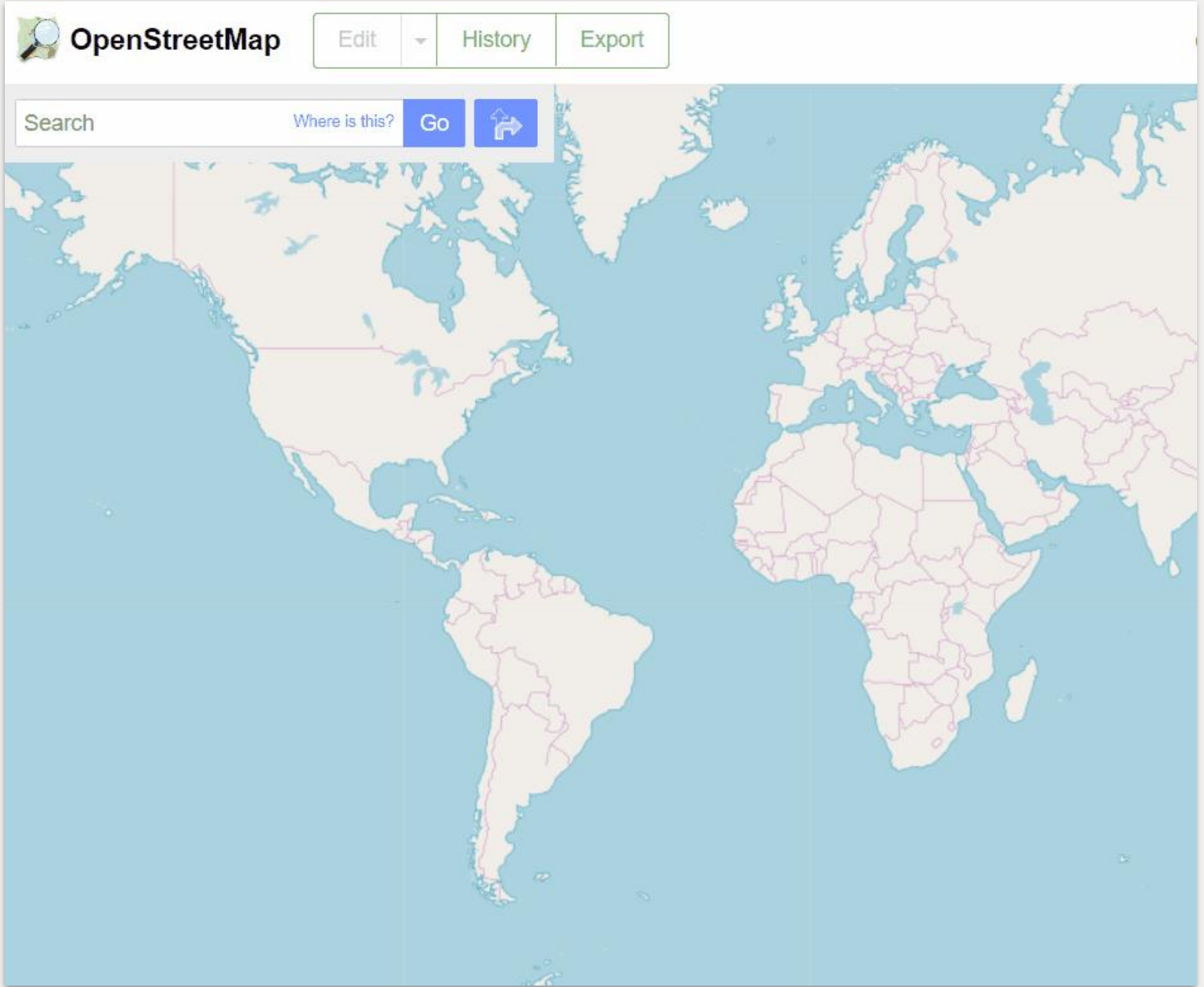
- gives communities, activists and advocacy groups powerful tools to advocate for resources and policies to meet specific local challenges

- ensures that decision-makers are able to rely on maps and geodata to better allocate resources





OpenStreetMap is a **free, open, editable map of the world**: anyone can use the map, and anyone can edit the map.



WHAT WE DO

Support humanitarian response by creating open source maps and data to respond to disasters and reach target communities

Data quality: Monitor data quality and validate maps

Mobilize contributors to generate map data for development and humanitarian aid

Partnerships: Co-create maps for impact with organizations worldwide.

Support OSM communities to prepare for and respond to disasters and local development challenges

Capacity development: Provide mentoring, internships, peer-training, skillsharing

Tech: Develop free, user-friendly open source mapping tools

Grantmaking for Open Mapping Organizations and Communities to address local challenges

Goal

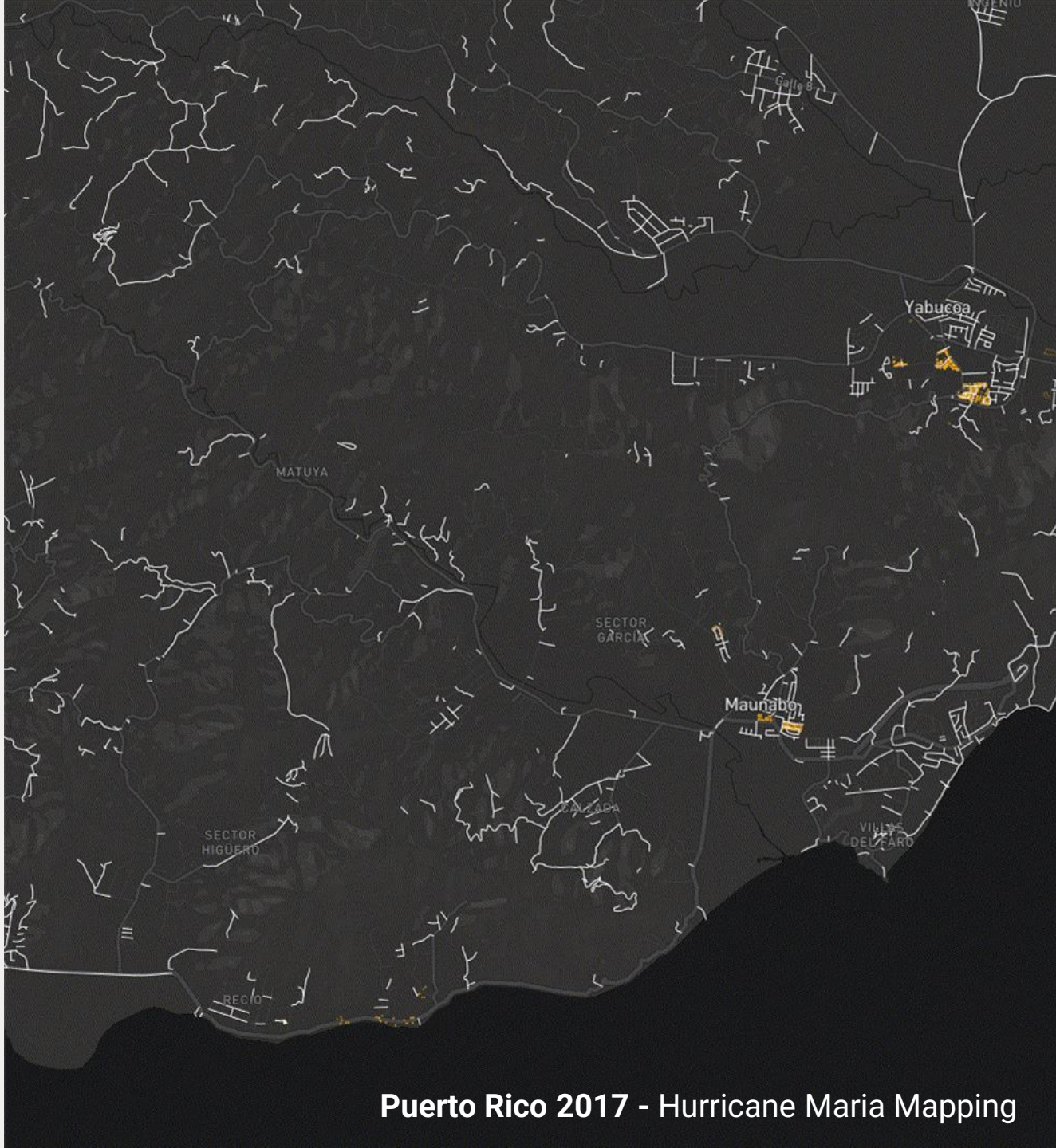
To map areas where people live at **high risk of natural disaster or experience poverty.**

Process

- **Mapping:** remote volunteers trace maps over satellite images
- **Remote Validation:** review and verification by remote experienced mappers
- **Field Validation:** local mapping, details e.g. place names, hospitals, are added

Outcome

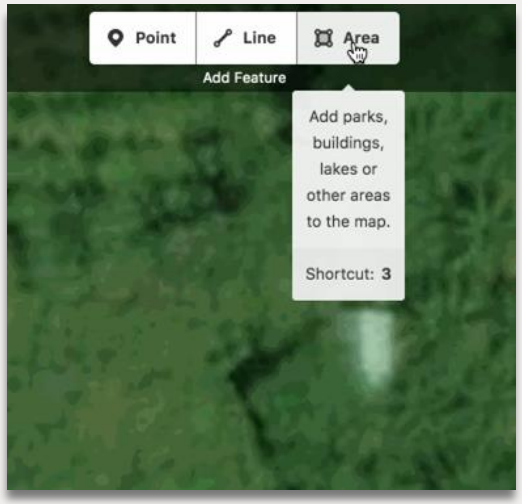
Individuals, communities and organizations can use the data and maps to better prepare and respond to **disasters** and **local challenges.**

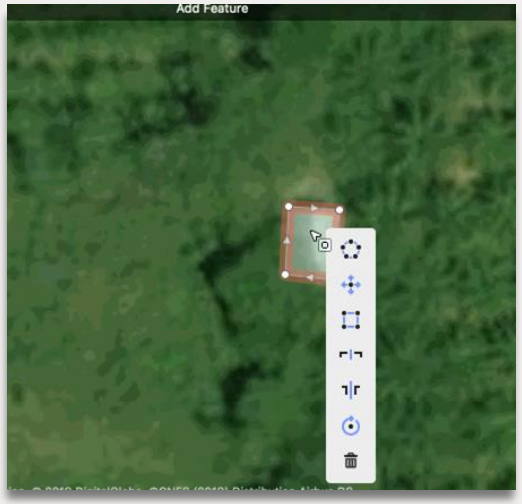


Puerto Rico 2017 - Hurricane Maria Mapping

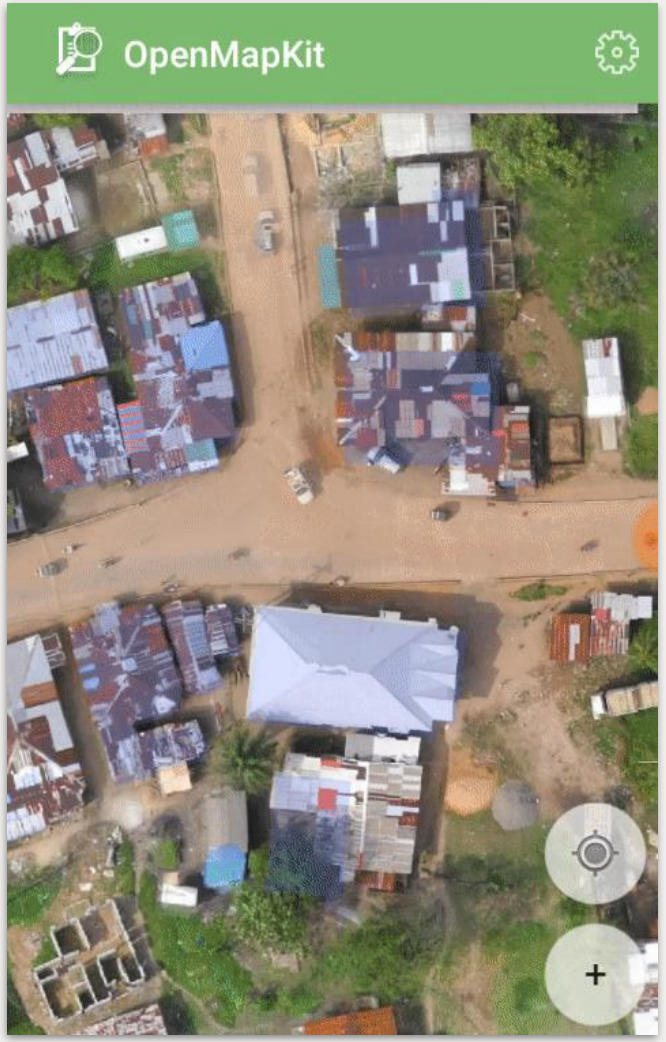
How it works

Remote mapping: from anywhere using a browser, tracing buildings and/or roads





Local mapping: range of Android apps to add varying levels of local detail

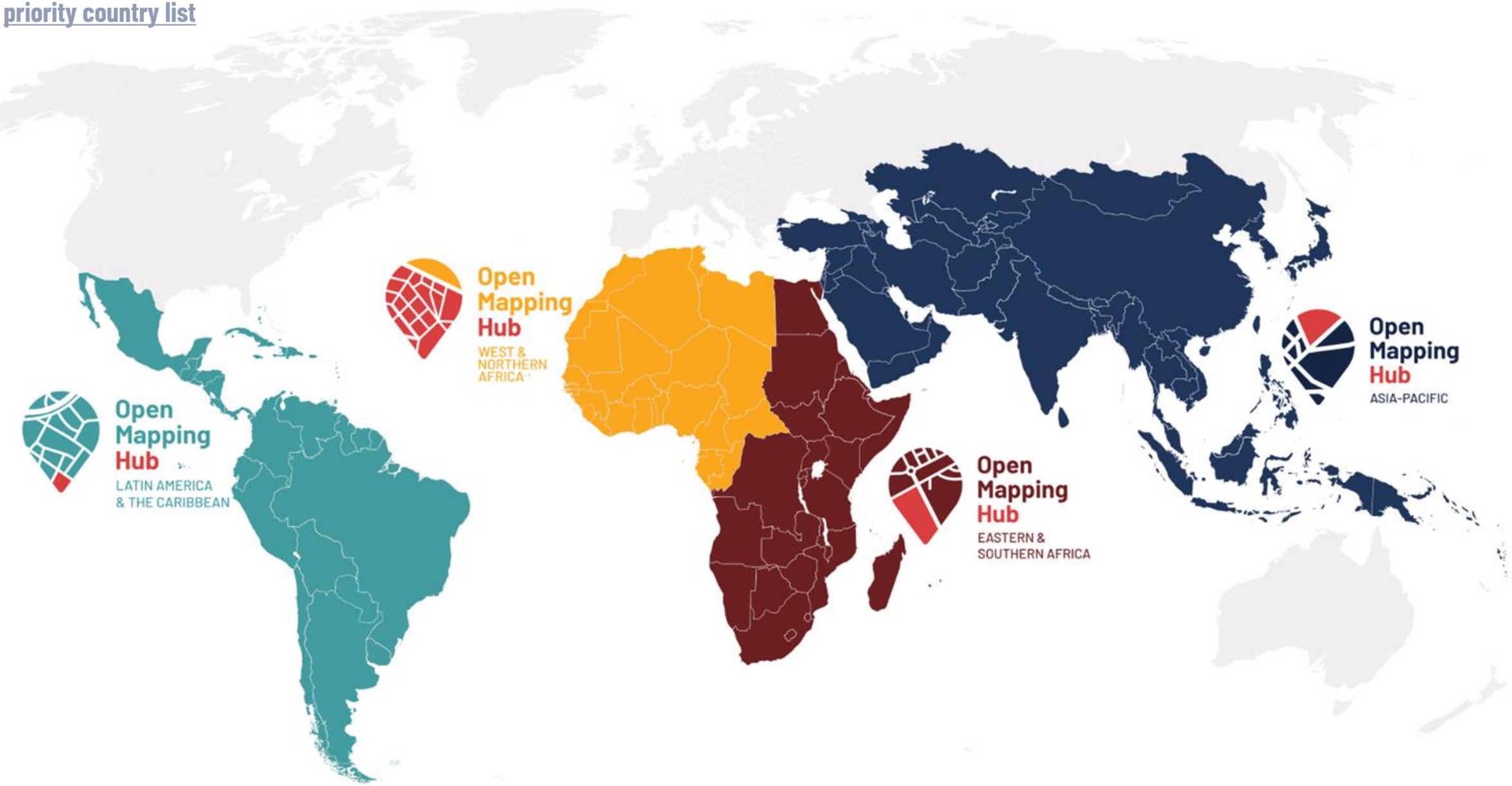


Outcome: Citizen-generated ground truthed data in **OpenStreetMap**



HOT will strengthen OpenStreetMap & open data in 4 priority regions

Link: priority country list




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Team
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AWS + HOT

IMPACT TO DATE

2,650+ volunteers

408,388+ edits in OpenStreetMap including

3 events per month with AWS employees



AWS + HOT

IMPACT TO DATE

- Monthly Mapathons
- AWS Credit Sponsorship
- Sponsorship for Indonesian Data Training Program (2020)
- AWS Snowball Edge + OpenAerialMap (2018)

Impact Areas



Disasters and Climate Resilience

Preparedness, anticipatory action, risk reduction; and responding to the impacts of rapid onset and prolonged natural disasters.

Sustainable Cities & Communities

Service delivery and infrastructure in disadvantaged urban and rural areas, including transportation, water and sanitation, and energy.

Public Health

Accessible healthcare infrastructure and informed public health programming and monitoring.

Displacement & Safe Migration

Coordinated service delivery for migrants and people displaced from home in transit, camp settings, and other informal contexts.

Gender Equality

Equal access & participation in open mapping. Improved understanding and accounting of gendered experiences & issues in all impact areas.

Use Cases for Open Mapping in Disasters & Climate



Anticipatory Action

Identifying spatial trends between environmental and societal risk factors

- **Mitigate disaster impacts and reduce risk** by preparing infrastructure & optimizing response plans
- **Increase resiliency** by understanding where climate impacts society

Response & Recovery

Find where and how to respond

- Locate **impacted areas & infrastructure**
- Logistics planning for **aid delivery and evacuation(s).**

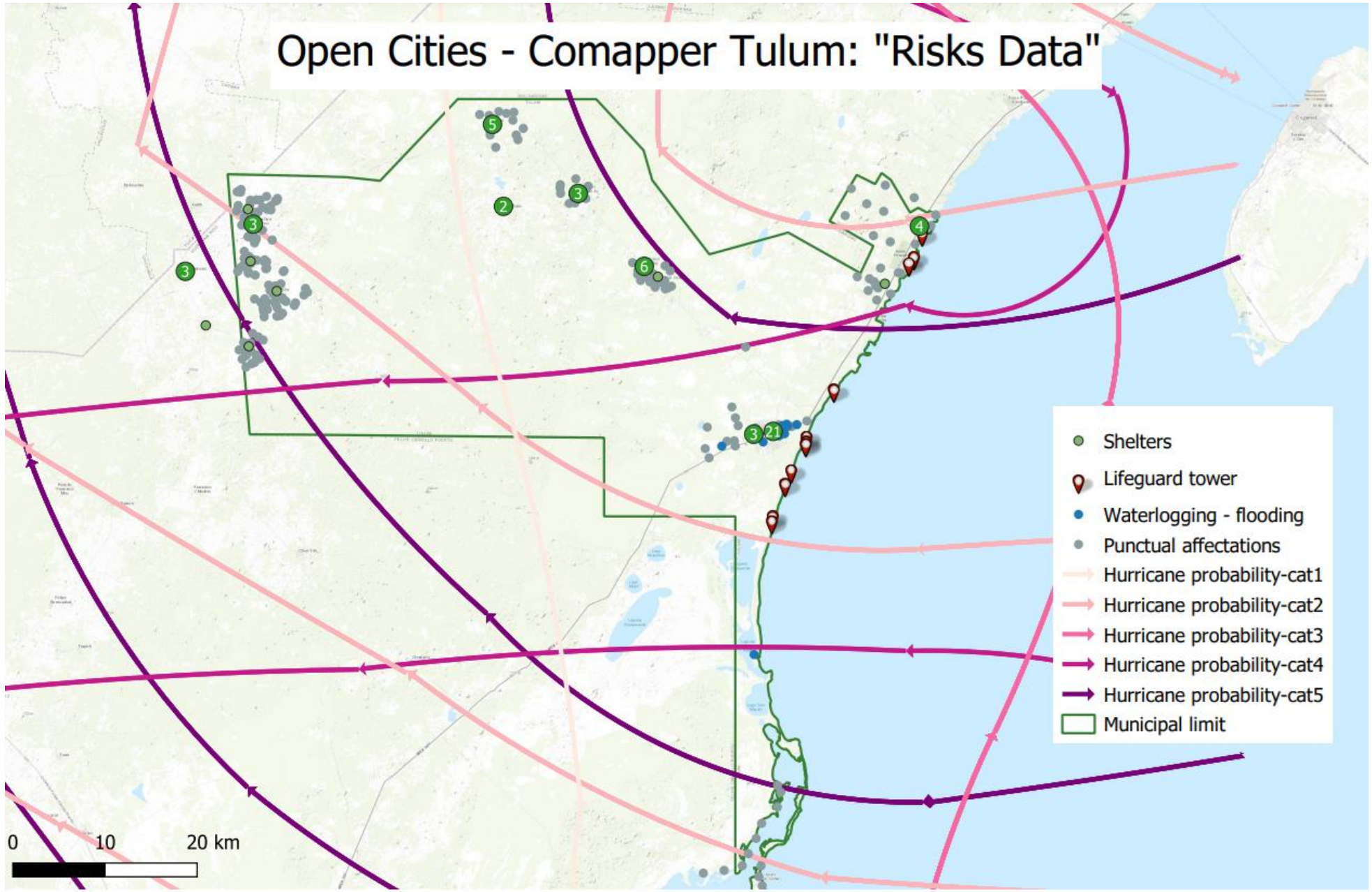
OSM Datasets for Disasters & Climate

Core Datasets in OSM

- Transportation
- Water and sanitation
- Energy
- Place names
- Community Centers
- Buildings

Related Datasets in OSM

- Health facilities
- Environment
- Waterways
- Land use
- Financial services
- Water management
- Energy sources



OPEN CITIES Mapping Project

GFDRR

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Humanitarian OpenStreetMap Team

Swiss Re Foundation

GEOID

Thank you!

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