

HUMANITARIAN OPENSTREETMAP TEAM



2025 ANNUAL REPORT



15 YEARS
MAPPING OUR WORLD TOGETHER



**Humanitarian OpenStreetMap Team,
Washington D.C., 2026**

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Cover photo:
Women at an event from the Western and Northern Africa Hub
Credit: REFEPAS

Table of Content Photo:
Map4Mangrove,
Credit: Tony Liong

HOT 2025

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HOT AT A GLANCE



Photo Credit: REFEPAS

2025 WAS A YEAR OF MILESTONES FOR HOT:

We celebrated our 15th anniversary and reached our audacious goal of mapping an area home to one billion people. We welcomed a global community of 760,000 volunteers and began shifting our focus to building local capacity and strengthening local mapping. In the midst of our celebrations, we also faced a difficult year in which humanitarian and development work became more challenging due to tightened funding, shifting priorities, extreme disasters driven by climate change, and intensified conflicts.

This landscape reaffirmed the value of the work we do: institutional partners turn to us not only as a source for locating buildings, roads, and infrastructure but also because our experience working with communities on the ground enables us to see the complexity behind the data. Local mappers reach out to us for guidance on open source technology and accessible equipment to collect information that supports their needs. We bring all these groups together to tackle the biggest issues of our generation: climate change, disaster risk, urban growth, conflict and displacement.

The map is always in motion. Migration, displacement, conflict, climate change, and disasters continuously reshape communities. At the same time, as baseline maps become more available, governments, humanitarian actors, and communities are increasingly asking for deeper, more detailed, and locally grounded data to guide climate adaptation, urban development, public health, and disaster risk reduction.

Across this report, you will find evidence of this in the work that our four regional hubs are doing around the world: mapping mangroves in Indonesia and providing post-earthquake support in Myanmar; training humanitarian agencies in Tanzania, government officials in Mozambique and local NGOs in Senegal in our community-led mapping methodologies; using accessible tools in Jamaica as a response to Hurricane Melissa and organizing virtual mapathons for anticipatory action in Colombia, Ecuador, Mexico and Peru; and supporting the residents and local government of Freetown, Sierra Leone with the creation of local drone operator crews who are capturing detailed imagery of the city in order to improve urban planning. All supported by a connected workflow of free and open source mapping tools, as well as the power of global volunteers, who stepped up to remotely map Khartoum and Beirut and to do field mapping across Africa and the Caribbean for a World Cleanup Day Mapping Challenge.

As you explore these cases, I hope you feel the same pride and excitement we feel when we ensure geospatial knowledge and tools are owned by communities and used for the greater good. Happy reading!

RMFirth.
REBECCA FIRTH

EXECUTIVE DIRECTOR

1,035,197,349 people

were mapped living in an area mapped via HOT's Tasking Manager

2025

25k MAPPERS

Volunteers who have contributed to our mapping initiatives

2010 - 2025

768k MAPPERS

2025

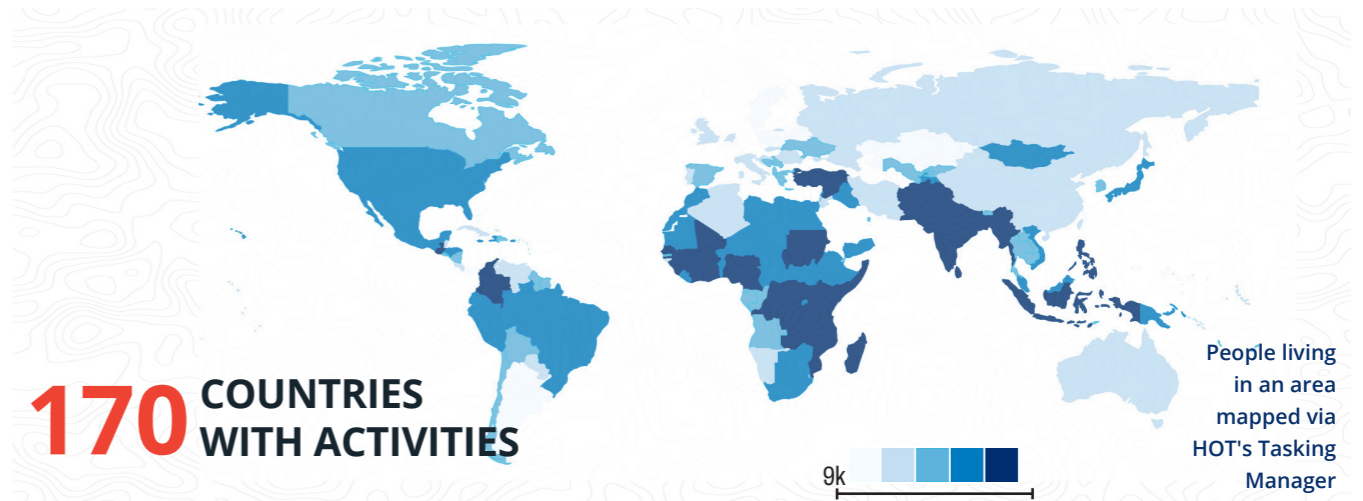
11m BUILDINGS MAPPED

Number of structures digitized by the mappers in OpenStreetMap

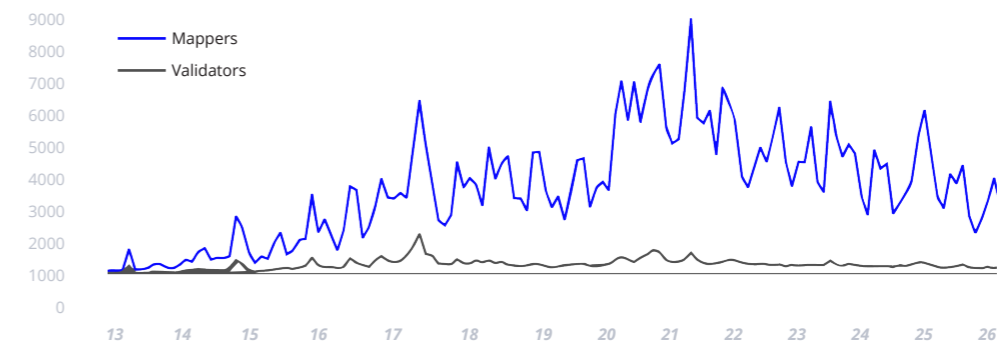
2010 - 2025

174m BUILDINGS MAPPED

POPULATED AREAS MAPPED



CONTRIBUTORS OVER THE PAST DECADE



Based on data up to 2025-12-31 collected from humstats.heigit.org.

OUR GLOBAL IMPACT



HOT's four regional hubs bring together local needs with global conversations. Established in 2021 and 2022, they are our direct connection with mappers, local governments, civil society organizations, and people on the ground working together to solve problems with open geospatial data and tools.

JAMAICA FLYING LABS (JFL)
Jamaica

HURRICANE MELISSA RESPONSE
JFL, and the Caribbean Disaster Emergency Management Agency (CEDEMA), Office of Disaster Preparedness and Emergency Management (OPDEM), WeRobotics, and CSOD
Jamaica

WAIRARI ATUN SACHA INDIGENOUS COMMUNITY
Colombia

ANNUAL NATIONAL ANTICIPATORY MAPATHONS (MANA)
Mexico, Peru, Colombia, Ecuador

GEODATA FOR HEALTH, EDUCATION, AND CHILD PROTECTION
Tostan and OSM Senegal
Orefonde, Matam Region, Senegal

TOMMY CHARLES
Head of Sierra Leone's local OSM Chapter
Sierra Leone

SLUM DWELLERS INTERNATIONAL
Sierra Leone Federation of the Urban and Rural Poor (FEDURP)
Sierra Leone

FREETOWN CITY DRONE MAPPING
Freetown City Council and civil society organizations
Freetown City, Sierra Leone.

GEOSPATIAL CAPABILITIES FOR DISASTER AND DEVELOPMENT AGENCIES
Instituto Nacional de Gestão e Redução do Risco de Desastres
Chokwé, Mapai, & Boane Districts, Mozambique

GEOSPATIAL SKILL-BUILDING TO SUPPORT REFUGEES
OpenMap Development Tanzania
Kasulu, Tanzania

TATIRANO SOCIAL ENTERPRISE
Madagascar

GEOHAZARDS RISK MAPPING INITIATIVE
Mokwa, Nigeria

JUSTINE CYURINYAN
Mapper and Validator
Rwanda

SUMAYA RAHMATULLAH EFFAT JAHAN EFA
MAP 4 RESILIENCE Leads
Dhaka, Bangladesh

MAP4MANGROVE
Indonesian Biodiversity Foundation and Yayasan Lestari Alam Kita
Pandeglang, Banten, Indonesia

RIZKY HADWIYANTI
Open Mapping Guru
Bali, Indonesia

EARTHQUAKE RESPONSE
Myanmar OpenStreetMap Community and the Centre for Development and Environment of the University of Bern
Myanmar

OPEN MAPPING GURUS MEETING
Metro Manila, Philippines



ASIA PACIFIC HUB

MEET OUR COMMUNITY!

- 15 Countries
- 7 Active Projects
- 16 Active Partnerships
- 300+ People Trained
- 8790 Mapping Volunteers

Rizky Hadwiyanti is one of our Open Mapping Gurus, a regional network of dedicated, experienced OSM contributors and champions. This year, she joined us in training members of disaster management agencies in Karangasem and Bali, Indonesia on how to use our suite of open mapping tools for volcanic disaster preparedness.

“My journey as a Guru has been a very meaningful experience. My best memory is seeing participants who were hesitant at first become confident using open mapping tools to support their communities. That’s the essence of open mapping: empowering local teams to lead with confidence and purpose.”



Rizky (right) during drone mapping field activities at Mount Agung, Bali
Credit: Rizky Hadwiyanti

Scholars with Open Mapping Gurus, AP Hub team, and HOT team at State of the Map 2025 in Metro Manila, Philippines
Credit: Joshua Baranda / Yugto Live (from State of the Map 2025 documentation)



Sumaya (left) and Effat (right) in front of plastic waste collected by the local community at Shah Poran for the PLASPIN reward-based plastic recycling system
Credit: MAP 4 RESILIENCE

Through the Climate Resilience Fellowship, **Sumaya Rahmatullah** and **Effat Jahan Efa** designed and led MAP 4 RESILIENCE, an initiative strengthening climate resilience and women’s and youth empowerment in Shah Poran, an informal settlement in Dhaka, Bangladesh. Their project cleared 115 kg of recyclable waste from the streets. In addition, 30 youths engaged in photovoice storytelling, documenting waste issues in their area for advocacy.

“With MAP 4 RESILIENCE, our goal was not just to deliver a project, but to help build a community capable of taking action on its own.”

Sumaya and Effat, Project Leads.

In 2025, the AP Hub launched the **Open Mapping Guru State of the Map (SotM) 2025 Scholarship**, providing Gurus with 13 in-person and 50+ online tickets for State of the Map (SotM) 2025, the annual global gathering of the OpenStreetMap community. Reflecting on her experience, **Louise Yvonne Paje** shared:

“SotM reminded me that even small contributions can create big ripples. Mapping is no longer just about roads and buildings; it’s about people, stories, and making sure everyone is seen.”



MAP4MANGROVE PANDEGLANG, BANTEN, INDONESIA

JANUARY 2025 – DECEMBER 2025



Pandeglang, Banten, Indonesia
Credit: Tony Liang

Tsunamis don’t only affect people; they also affect the ecosystems that sustain us. This is what happened after the 2018 Sunda Strait tsunami, which devastated mangroves across the region. To support the Blue Carbon Program*, an ongoing mangrove rehabilitation effort led by the Indonesian Biodiversity Foundation (KEHATI) and Yayasan Lestari Alam Kita (SALAKA), HOT’s AP Hub established Map4Mangrove to address gaps in monitoring and reporting. Through the project, we mapped 14 hectares across 5 mangrove restoration

sites, documenting 8 hectares of existing growth and 6 hectares with potential for restoration. We also trained 62 individuals, 31 of whom were women, including government officials, university lecturers, and students, in open mapping, equipping them to maintain the system after the project’s conclusion. Now, the data can be easily accessed through the [Map4Mangrove Dashboard](#), which visualizes mangrove health data and carbon sequestration estimates, with integrated drone imagery and street-level images. As a result, this project has improved mangrove rehabilitation efforts in the region through more effective monitoring and reporting.

“We’re thankful for our partnership with the HOT Asia-Pacific Hub, whose mapping support helps ensure that we can have the most up-to-date data on the condition and status of our mangroves.”

Toufik Alansar, Marine Program Manager, KEHATI.

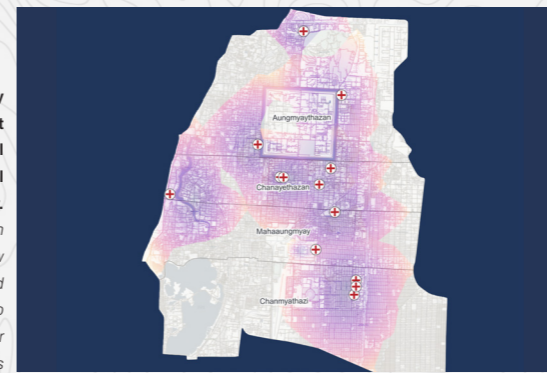


*The Blue Carbon Program is funded by PT Asahimas Chemical and supported by the Banten Provincial Government.

EARTHQUAKE RESPONSE MYANMAR

MARCH 2025 - OCTOBER 2025

Accessibility to Nearest Public Hospital in Central Mandalay.
This map is an example of how partners could use the data to support their operations



On 28 March 2025, a 7.7 magnitude earthquake struck Central Myanmar, causing extensive damage and casualties. In the wake of the earthquake, we found that many townships were unmapped and that existing **OSM data were severely outdated, with some areas showing up to 85% data gaps**, which compromised disaster response and recovery planning. With funding from the H2H Network and Virgin Unite, HOT’s AP Hub partnered with Myanmar OpenStreetMap Community (myOSM) and the Centre for Development and Environment (CDE) of the University of Bern, Myanmar Branch Office to

mobilize over 3,300 remote volunteers. **Together, we mapped 29 priority townships, adding 1.7 million buildings and nearly 19,000 km of roads to OSM.** The data captured 57% more buildings than AI-mapped datasets and proved more accurate in both rural settlements and dense urban areas, such as Mandalay. Encouraged by humanitarian partners on the ground, we also piloted a Crowdsourced Damage Assessment methodology in which **16 Myanmar-based Gurus used their local knowledge to identify building damage**, mapping a total of 2,469 damaged buildings across 20 townships (930.42 km²). Building, road network, and damage data were used by various actors, as evidenced by approximately 1,500 downloads on the Humanitarian Data Exchange and their use in research on flood risk by institutions such as the UN’s World Food Programme.



EASTERN AND SOUTHERN AFRICA HUB

21 Countries
12 Active Projects
3 Active Partnerships
539 People Trained
8,528 Mapping Volunteers

MEET OUR COMMUNITY!

Justine Cyurinyan is a mapper and validator from Rwanda who was selected as a 2025 ESA Validator Fellow. She validated building footprints, highways, and waterways across Africa, Asia, and North and South America, contributing over 160,000 buildings and 5,000 km of highways to OpenStreetMap. (For comparison, that's about one-sixth of the buildings in all of New York City and just 500 km shy of the distance from New York to London.) She has an aptitude for identifying mapping inconsistencies across different imagery sources and managing imagery offsets.

"I am proud of the validator I am becoming: bold and confident in contributing quality data. I prioritize quality over quantity and aim to continue creating meaningful impact through mapping."

Justine Cyurinyan, Mapper and Validator



Justine supporting other mappers during a mapathon held by DSM Rwanda
Credit: Eco Mappers Rwanda

An aerial view showing the part of Elgeyo Marakwet hit by a landslide. Photo: Kipchumba Murkomen.
Source: Facebook - [Tuko](#)



22 November 2025, Ambatry, Tsihombe District, southern Madagascar

In the photo, Irène, the kiosk manager, and Renimanga, the first customer of the day—a small but vital transaction that ensures the community has access to safe water.
Credit: Tatirano

Tatirano Social Enterprise works in remote communities in Madagascar where women collect water, a task that takes hours each day. Since 2023, with funding from our Open Mapping Grants, **Tatirano has tracked water collectors, rainfall patterns, and water system performance.** This data overlays with road networks, existing water points, and population density to identify gaps in water access. **All data feeds into Statirano, an open-source platform that publicly shares the status of water points and other infrastructure.**

Between December 2024 and November 2025, 8,528 global volunteer mappers contributed to seven emergency response projects in the region using the **HOT Tasking Manager**. Collectively, they mapped **3.15 million building footprints and 61,693 km of roads** (for reference: that is three New York Cities' worth of buildings and enough roads to circle the earth one-and-a-half times). The impact has been felt: When different actors (residents, civil society, local government) were asked by a government official how many homes were affected by the **Elgeyo Marakwet landslide**, they said the only numbers they trusted were from the Kenyan Red Cross due to the work done with HOT's mappers. Now, the same data is being used to help build homes for those affected.



GEOSPATIAL SKILL-BUILDING TO SUPPORT REFUGEES

KASULU, TANZANIA

FEBRUARY 2025 - MARCH 2025



Prepared by: Philipo Lugalila

Managing and analyzing geospatial information is crucial to support refugees living in camps in Tanzania.

HOT teamed up with Caribou Space and OpenMap Development Tanzania (OMDTZ) to improve the geospatial skills of staff from the United Nations High Commissioner for Refugees (UNHCR) Tanzania office, which operates the Nyarugusu and Kabondo refugee camps. With participation from the Danish Refugee Council and the Norwegian Refugee

Council, we conducted a two-week workshop in which their staff learned to independently collect, manage, and analyze geospatial data tailored to their departments' needs, all using open-source tools with no licensing barriers. Through the workshop, they learned how to use this data to gain insights into camp conditions for planning WASH infrastructure, tracking environmental changes, and supporting growing camp populations. Since the training, UNHCR Tanzania has integrated this skill set into its regular operations, with plans to also train camp residents to map their own communities.

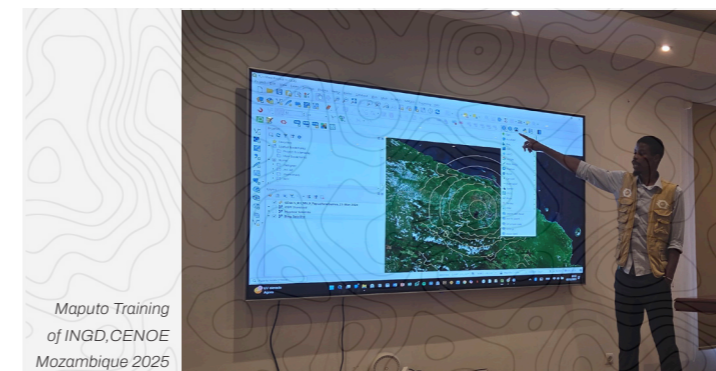
"From this training, I was able to know how to acquire geospatial data from different sources, [...], I didn't know there was free data that anyone can download and apply to many GIS applications. [...], now I know exactly where different data types can be accessed".

Godfrey Mchunguzi Oyema, Environment Officer, UNHCR Tanzania



OPEN GEOSPATIAL CAPABILITIES FOR DISASTER AND DEVELOPMENT AGENCIES CHOKWÉ, MAPAI, & BOANE, MOZAMBIQUE

FEBRUARY 2026 - MARCH 2026



Maputo Training of INGD, CENOE Mozambique 2025

Cyclones like Gezani, which made landfall in Mozambique on February 14 2026, are an example of the climate-related challenges the country faces due to its extensive coastline and nine major river basins. Yet, effective disaster response has been hampered by a lack of detailed geospatial data on vulnerable infrastructure, evacuation routes, and population exposure. With support from the Gates Foundation, we partnered with Mozambique's disaster and planning agencies* to build their mapping capabilities across three priority districts, as well as those of

local government staff and community members. As a result of this project, all three districts now have updated critical infrastructure, evacuation routes, and population exposure data mapped on OpenStreetMap. Government staff have been trained to integrate satellite imagery, process drone data, and use open-source mapping tools, giving agencies the in-house skills to maintain and build on these datasets. Community-collected data has been integrated directly into national disaster response systems, making it available to emergency responders when cyclones, floods, or droughts strike.

*Instituto Nacional de Gestão e Redução do Risco de Desastres, Centro Nacional Operativo de Emergência and Fundação para o Desenvolvimento da Comunidade



LATIN AMERICA AND THE CARIBBEAN HUB

- 17 Countries
- 7 Active Projects
- 18 Active Partnerships
- 769 People Trained
- 6,483 Mapping Volunteers

Jamaica Flying Labs (JFL) is a trusted HOT partner whose work spans emergency response and capacity-building initiatives, from the Hurricane Melissa response to programs that train women, girls, and students in mapping and drones. Together, we have extended Drone Tasking Manager training to Jamaica and Saint Lucia and co-developed an online course for media professionals. Building on this collaboration, we are partnering with JFL and UNESCO to launch a regional training program on drones, GIS, and AI for disaster planning, equipping media and emergency communicators with skills to use drone imagery and disaster mapping to deliver accurate, actionable information while countering misinformation.

"What keeps these teams going is the understanding that every [drone] flight, every dataset, every assessment will help a community that is hurting and cut off."

Dr. Valrie Grant, Managing Director, JFL



Team from the Hurricane Melissa Response in the Caribbean

In Santa Rosa, Cauca, Colombia, the UNAULA and HOT team conducted a participatory mapping training session with the Cabildo Wairari Atún Sacha of the Inga people.



Members of the Network meeting in-person at ABRELATAM/CONDATOS, Uruguay 2023

MEET OUR COMMUNITY!

The **Open Mapping Network** includes organizations and individuals across Latin America that have built sustained open mapping collaborations to share knowledge, strengthen skills, and coordinate efforts. This network includes Co.Mapper, Codeando México, Fundación OpenLab, Meninas da Geo, and UNAULA / POMOTE, as well as individual allies Alessandra Figueredo, Igor Da Mata, Johnattan Rupire, Patricia Llanos, and Virgilio Benavides

The **Wairari Atun Sacha Indigenous Community** in the Colombian Amazon is leading an evidence-based land titling process, strengthening its own technical capacity to document territorial governance and define biodiversity conservation areas aligned with its life projects (the community's term for management plans). This work is supported by HOT and Universidad Autónoma Latinoamericana (UNAULA), with the Inter-American Institute for Global Change Research as a funding partner. The initiative is now in a critical advocacy phase before the National Land Agency, where community-generated geospatial evidence is supporting formal recognition and long-term protection of ancestral territory.



HURRICANE MELISSA RESPONSE JAMAICA

OCTOBER 2025 - FEBRUARY 2026



Team from the Hurricane Melissa Response in the Caribbean

Authorities know that after any disaster strikes, the first few hours are vital to understand where damage is located and which communities need support first. This is what happened last fall after Melissa, a Category 5 hurricane, made landfall in Jamaica. At that critical time, we deployed a community-led field-mapping campaign in which over 2,000 Jamaican residents joined the call to use our accessible tool, ChatMap. As a result, we collected 234 geolocated reports with photos, videos, and on-the-ground conditions, providing responders with

real-time situational awareness. At the same time, 247 volunteer mappers worldwide rapidly updated OpenStreetMap to support logistics, coordination and early recovery planning. Our partner, Jamaica Flying Labs, led a local drone mapping campaign using HOT's Drone Tasking Manager to conduct systematic aerial surveys for damage assessments at a level of detail impossible with satellite imagery alone. Now, along with the Office of Disaster Preparedness and Emergency Management and the Caribbean Disaster Emergency Management Agency, we are discussing long-term use of the data, including the potential development of a dedicated ChatMap platform to support household recovery tracking.

"ChatMap ... has been an invaluable tool in our relief efforts. It has provided critical situational awareness and streamlined the way we monitor damage to buildings across the island."

Representative from the Ministry of Economic Growth & Infrastructure



ANNUAL NATIONAL ANTICIPATORY MAPATHONS PERU, MEXICO, COLOMBIA, ECUADOR

MAY 2025 - DECEMBER 2025



The Municipal Institute of Planning (IMPLAN) of Los Cabos actively participated in the mapping process

Our experiences supporting disaster-affected communities have taught us an important lesson: geospatial data works best when collected before the disaster strikes. That's the guiding vision behind Annual National Anticipatory Mapathons (MANA): organized mapathons across four Latin American countries that generate open geospatial data, which is then used to strengthen disaster preparedness at the local and national levels. In Peru, youth and university networks mapped 17,243 buildings, and in Mexico, the largest MANA activation to date, saw 970 contributors. Ecuador's third national mapathon

reinforced long-term institutional collaboration, with 145 contributors from a wide range of organizations mapping 24,186 buildings and 631 km of roads. In Colombia, the resulting basemaps enabled municipalities to create and update 16 data-driven Municipal Risk and Disaster Management Plans, and additional government entities have joined to create data for other sectors, such as public health. In total, the four mapathon series engaged thousands of volunteers and added over 465,000 buildings and hundreds of kilometers of roads to OpenStreetMap, filling critical data gaps that directly inform anticipatory action, risk assessment, and territorial planning in climate-vulnerable areas.



WEST AND NORTHERN AFRICA HUB

- 24 Countries
- 4 Active Projects
- 18 Active Partnerships
- 498 People Trained
- 6,300+ Mapping Volunteers

MEET OUR COMMUNITY!

Tommy Charles is the national coordinator of Sierra Leone's local OpenStreetMap chapter. He joined the OpenStreetMap community in 2016 and has been a key contributor to our project in Freetown, where he has coordinated drone-mapping training sessions and shared practical knowledge on integrating mapping techniques and software for both new and existing mappers.


“Humanitarian mapping projects help one to understand the world we live in. It exposes you to the realities of communities around the world and how the challenges they face can be addressed, and learn from the novel solutions they have developed and adopted.”

Tommy Charles.



Tommy (left) coordinating field mapping. Credit: Tommy Charles.

SDI/FEDURP members participate in our pilot training program.

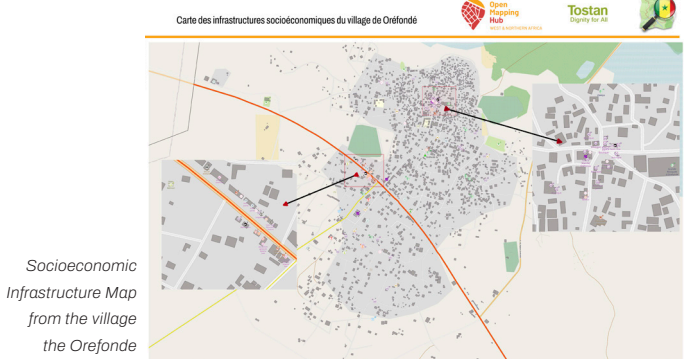


GRMI's founder, Taiwo Ogunwumi, presenting his research at a conference.

The **GeoHazards Risk Mapping Initiative (GRMI)** focuses on creating detailed maps of areas at risk of natural hazards, including floods, drought, and heatwaves, to inform and support disaster preparedness, mitigation, and response. After the Mokwa floods impacted north-central Nigeria in May of 2025, GRMI developed an open-access interactive dashboard using data gathered from a post-disaster mapping campaign in **TM**, which the Nigerian Red Cross used to better understand the scale and spatial distribution of impacts.

“Producing data alone is not enough; transforming open data into accessible, decision-ready tools, such as interactive dashboards and story maps, is what truly bridges the gap between mapping and real-world impact.”

Taiwo Ogunwumi, Founder & Project Lead, GRMI.



Carte des infrastructures socioéconomiques du village de Orefonde

Socioeconomic Infrastructure Map from the village of the Orefonde

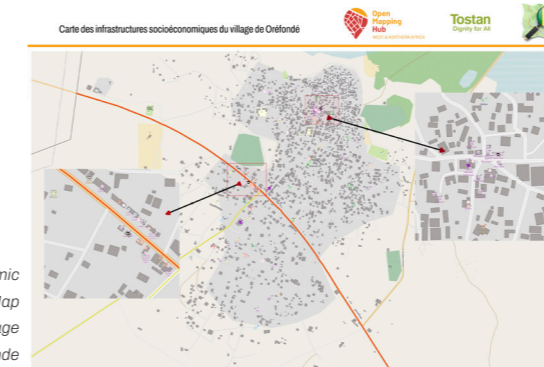
Slum Dwellers International (SDI) is a global network of informal settlement residents working to create inclusive, resilient cities where their lives are substantially improved. For the past two years, we have collaborated with SDI through the **Sierra Leone Federation of the Urban and Rural Poor (FEDURP) on the KnowYourCity (KYC) programme**. Having seen firsthand the opportunities that drone mapping unlocks through our **drone pilot training program**, SDI is now incorporating drone imagery as a core component of its KYC data work.



GEODATA FOR HEALTH, EDUCATION, AND CHILD PROTECTION

OREFONDE, MATAM REGION, SENEGAL

SEPTEMBER 2024 - APRIL 2025



Although usually managed by different departments, health, education, and child protection are closely linked sectors that benefit from collaborative approaches. In the Matam region of Senegal, local partners recognized that they could benefit from interconnected geospatial data across these sectors to **support effective infrastructure planning and to meet the needs of rural communities**. We partnered with **Tostan and OSM Senegal** to address

this by providing training to 10 local NGOs on data collection, analysis, and visualization using HOT's tech tools. From the resulting maps, participants gained valuable insights for planning, such as the relationship between geographic distance and school dropout rates. During the training, they also created thematic maps to improve access to community social services and child protection, which have been distributed to various key stakeholders, including healthcare posts and community centers.

“This project goes beyond Senegal and our organization. It could impact the entire sub-region, or even all of Africa. We plan to share it with other organizations.”

Elena Bonometti, Executive Director, Tostan



FREETOWN CITY DRONE MAPPING

FREETOWN CITY, SIERRA LEONE

MARCH 2025 - JULY 2025



Freetown's mayor, Yvonne Aki-Sawyers, participated in drone flying training activities in Crab Town, Aberdeen

Freetown City faces significant hurdles stemming from rapid, unplanned growth, particularly in informal settlements, and from disaster risks posed by a steep, flood-prone landscape. Looking for up-to-date, detailed geospatial data to support them in overcoming these hurdles, Freetown City Council (FCC) partnered with us and key civil society organizations, including the National Commission for Persons with Disability (NCPD), OSM Sierra Leone, FEDURP/CODOHSAPA, and Slum Dwellers International (SDI). Together, we trained city staff and residents, including women and people with disabilities, to serve as drone pilots who captured

and processed 5 cm-resolution imagery covering 80 km² of the city. FCC now uses the imagery for urban planning, including taxation, flood mitigation, and waste management. We also produced accessibility assessments across six settlements, analyzing transport routes for persons with disabilities to advance more inclusive urban planning. All equipment was transferred to the FCC, and now Freetown hosts one of the first city-wide Open Drone Crews, giving the city ongoing autonomy over its own aerial data collection.

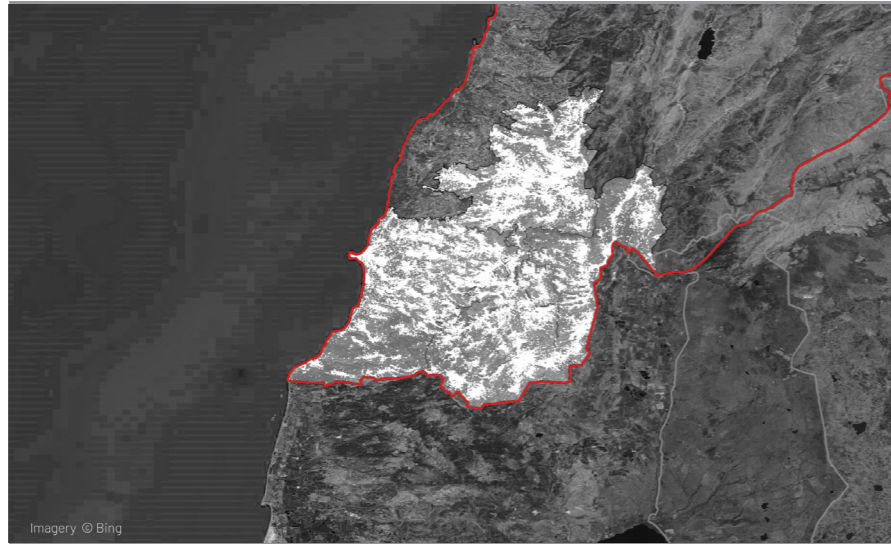


Photo top
View of building footprints added in southern Lebanon during the H2H project of 2025.

Photo bottom
View of digitized building footprint somewhere in southern Lebanon.

CONFLICT AND DISPLACEMENT PROGRAM

Sudan, Lebanon, Gaza

Crises arising from conflict have unique data requirements for humanitarian responders. Our Conflict & Displacement Program aims to close these data needs in conflict-sensitive ways, leading mapping campaigns informed by contributors in affected countries, diaspora communities, and around the world. In September 2025, this work was recognized with a Special Distinction for the Use of Open Source Technology from the Kluz Prize for PeaceTech, highlighting how our work with open geospatial data improves the tracking of damage and conflict impacts and informs recovery needs in places where traditional data infrastructure has collapsed.



Photo top
Khartoum Interactive Damage Assessment in Conflict Environments from 2026 using OSM buildings.

DATA-DRIVEN RECOVERY

South Lebanon

Following the escalation of conflict in October 2024, the region faced severe destruction of homes and public services. To provide an updated building footprint for damage assessments, we mobilized 357 volunteers who contributed over 319,000 edits to OpenStreetMap between November 2024 and March 2025. The resulting dataset captured 65% more buildings in key districts than the leading machine-learning alternatives, a critical advantage for early damage assessments, which risk underestimating destruction when built on incomplete basemaps. We also conducted capacity-building sessions with

local GIS professionals who can support the reconstruction of schools, hospitals, and water systems and partnered with local entities, such as the Lebanon Reforestation Initiative and the American University of Beirut to host mapping events. Finally, we compared how different damage-assessment methodologies have produced significantly different estimates of damage in Southern Lebanon, leading to the publication of our report “Lebanon - Informing humanitarian response: A guide to remote sensing analyses of conflict damage”, in which we offer recommendations to navigate the resulting variance.



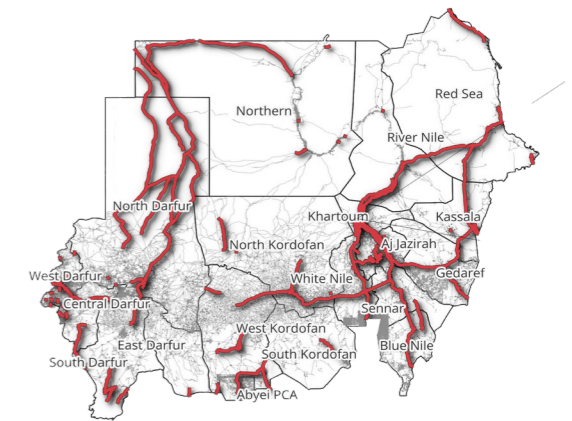
Photo left
Photo depicting a landscape in Sudan with a Tasking Manager like grid.

Photo right
Map showing the digitized roads with translated names in Sudan for the Mapping from Exile project.

MAPPING FROM EXILE

Sudan

Nisreen Mahmoud is among the more than 11 million people who fled their homes after the conflict began in Sudan in April of 2023. A seasoned GIS engineer with more than 18 years of experience, she was a key part of the grassroots effort, the Khartoum Reconstruction Initiative (KRI), before joining HOT's effort in 2024. Through the project, which was funded by the H2H Network, Mahmoud mobilized people in the Sudanese diaspora to remotely reconstruct geospatial data lost in the conflict. A total of 468 contributors joined this large-scale



mapping effort, which included tracing building footprints, roads, and heritage and cultural sites, including libraries, museums, religious sites, and historical landmarks. Our team also translated road names into English and Arabic, making the data immediately usable for aid logistics and coordination across language barriers. In June 2025, Nisreen was selected as one of HOT's voting members, where she can now influence the organization's governance. She is the first voting member from Sudan.

AN OPEN SOURCE, COMMUNITY-LED MAPPING WORKFLOW

In 2025, HOT's OPEN SOURCE, COMMUNITY-LED MAPPING WORKFLOW was fully established, taking users from aerial imagery and building footprints to analysis and visualization, to enable communities to produce high-quality geospatial data projects on their own.

1

AERIAL IMAGERY

Drone and satellite imagery show features on the ground (buildings, roads, and more) that can be tied to a specific location. High-resolution, up-to-date imagery is usually costly, while openly available options have lower resolutions or are outdated. Our solutions start here:



DRONE TM

Local residents use accessible drones and generate consistent, high-quality imagery.



OPEN AERIAL MAP

The imagery is uploaded to a public platform that anyone in the world can access and use.



TASKING MANAGER

Remote mappers coordinate their activities and the validated data is uploaded to OpenStreetMap.



fAIR

Mappers train and inform AI-mapping models through the whole process.



FIELD-TM

Project coordinators organize on-the-ground mapping to add local context to the traced features.



CHATMAP

Local residents use intuitive tools for field mapping, such as instant messaging apps.



HOT'S UMAP

Stakeholders visualize data in our free, easy-to-use platform.



EXPORT TOOL

People download the collected data in various formats.

2 GEOSPATIAL (OR MAP) DATA

With eyes on the ground, we now can start tracing the shapes on the imagery and add them to databases, such as OpenStreetMap. The tracing is done remotely, either manually or with Artificial Intelligence (AI). Field mapping complements these databases by adding more context about the features (e.g., "this is a hospital").

2

HOT has developed a suite of 8 free and open source tools that enables the entire mapping process to be community-led

Thanks to philanthropic funding we've prototyped and built the foundation for the whole workflow.

Our next step is to make it more robust and usable, so it can be fully leveraged by our community members.

3 ACTIONABLE INSIGHTS

The information collected in the previous steps is now used by different stakeholders and communities themselves for data-driven action. While most databases and analysis tools are too restrictive due to privacy, costs, or technical knowledge, we've lowered the barrier to entry so more people can use them.

3

TECH CONNECTING OUR WORKFLOW FOR COMMUNITY ACCESSIBILITY

"THROUGH LOCAL CAPACITY BUILDING, THE COMMUNITY'S KNOWLEDGE AND UNDERSTANDING CAN EXPAND FURTHER, AND THEY'LL ALSO BE ABLE TO SHARE DISASTER RISK REDUCTION STRATEGIES BASED ON LOCAL WISDOM."

| Wayan Pika Wiadnya, Disaster Analyst at BPBD



DroneTM on the Rise

In Indonesia, we trained the local disaster management agency (BPBD) in Ban Village on how to use low-cost drones to capture high-resolution aerial imagery. The imagery was then used to map existing early warning systems and identify suitable locations for new installations across high-risk areas around Mount Agung.



fAIR meets MapSwipe

Through a partnership with Togglercorp, HOT integrated fAIR with MapSwipe to create "fAIRSwipe," allowing volunteers in disaster scenarios to swipe on their phones to confirm AI-predicted building footprints, rapidly generating high-confidence training data that strengthens locally owned AI models at speed and scale.



ChatMap & uMap for a Cleaner World

On World Clean Up Day, we partnered with UNICEF YOMA to mobilize over 2,700 African and Caribbean youth for waste management initiatives. Using ChatMap and uMap, they tracked their collection of more than 114,263 kg of trash.



BOARD MEMBERS



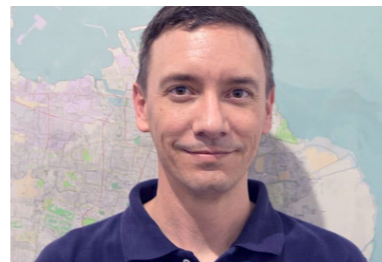
NATE SMITH
President, Board of Directors
2021-present



HAWA ADINANI
Board Member,
2024-present



KUO-YU "SLAYER" CHUANG
Vice-President, Board Member
2021-present



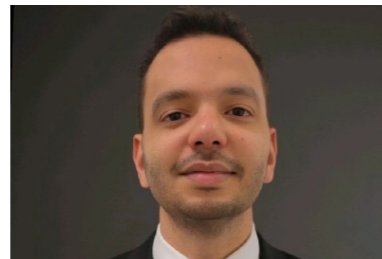
RUSSELL DEFFNER
Treasurer, Board of Directors
2025-present



EMILY MICHAEL
Board Member
2025-2026



LAURA GUZMAN
Board Member
2025-2026



SAÏD ABOU KHARROUB
Board Member
2025-2026



ANGELA ODUOR LUNGATI
2022-2025 - Executive Committee, HOT



SHOAIB BURQ
2021-2025 - Vice President/Secretary/
Finance committee member, HOT Board



KATE CHAPMAN
2010 - Co-founder, HOT
2010-2015 - Executive Director, HOT
2022-2025 - President/Treasurer, HOT

WELCOME 2025-2026 BOARD!

This year we welcome not only new voting members but we also welcome our first appointed board members.

Looking forward to working together in the coming year!

NEW MEMBERS

THANK YOU!
DEPARTING MEMBERS

WHAT'S NEXT

Looking ahead to 2026, we remain focused on our core mission but with a shift toward a blended revenue model that can accelerate a marketplace approach together with local communities.

We are building toward a marketplace approach that enables communities to access contracts, partnerships, and pathways to build their livelihoods with mapping.

This shift is rooted in a clear belief: for local mapping to scale, local communities need sustainable pathways to contribute. They will **derive real economic value and long-term benefits from their mapping**. We will also invest in leadership, technical skills-building, project management, and effective engagement with decision-makers. And we will deepen partnerships across the humanitarian, climate, development, and public sectors to ensure that **community-led mapping is treated as essential infrastructure for planning, preparedness, and response**.

The path ahead is ambitious, but the foundation is strong. With every map created, every partnership established, and every community supported, we move closer to a world where more people have the tools and the power to improve their future. We are building toward a future where the people closest to the challenges are also closest to the data, decisions, and resources needed to address them.

Thank you for the time, care, thought, trust, and resources you contribute to this work. Together, we will continue transforming geospatial data into action and local knowledge into global progress.



Emergency Resources Mapping Project in St. Kitts and Nevis
Credit: HOT



Woman dancing at an event from the WNA hub.

FINANCIAL REPORT BREAKDOWN

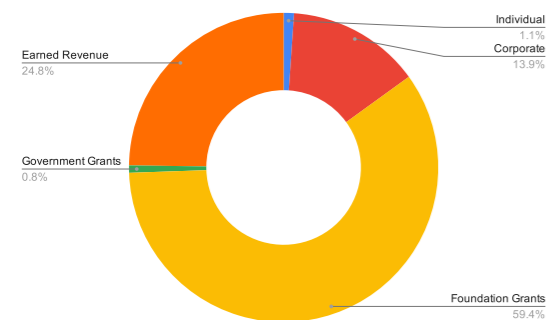
2025 - 2026 Accounts

2025 saw our organization dedicated to our mission and the communities we serve, with financial performance reflecting responsible stewardship. Looking ahead to 2026, we remain focused on our core mission. Projections are based on funding opportunities, program needs, and strategic initiatives, with revenue anticipated from diverse sources.

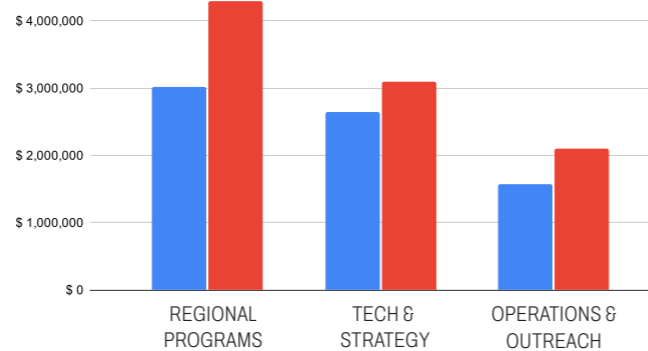
EXPENDITURES FROM 2025 AND 2026 PROJECTIONS

	Breakdown	2025	By Area	2026	By Area
REGIONAL PROGRAMS	Asia Pacific Region	\$ 519,939		\$ 800,000	
	Eastern & Southern Africa Region	\$ 937,027	\$ 3,026,017	\$ 1,300,000	\$ 4,300,000 (+42%)
	West & Northern Africa Region	\$ 428,472		\$ 1,100,000	
	Latin America & Caribbean Region	\$ 1,140,580		\$ 1,100,000	
TECH & STRATEGY	Technology & Data Innovation	\$ 1,753,964	\$ 2,654,400	\$ 2,200,000	\$ 3,100,000 (+16.7%)
	Strategy & Partnerships	\$ 900,434		\$ 900,000	
OPERATIONS & OUTREACH	External Relations & Philanthropy	\$ 520,957	\$ 1,573,212	\$ 800,000	\$ 2,100,000 (+33.4%)
	Management & Operations	\$ 1,052,254		\$ 1,300,000	
	Totals	\$ 7,253,627		\$ 9,500,000	

2025 REVENUE SOURCES



2025 - 2026 EXPENDITURE



OUR DEEPEST GRATITUDE TO OUR PARTNERS

WITH SPECIAL THANKS TO OUR
AUDACIOUS DONORS



Darwin Initiative - EPFL -EY - Gates Foundation
 Global Giving - Howden Foundation - Judith Neilson Foundation
 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
 Twilio Impact Fund - UNICEF - World Bank

2025



HUMANITARIAN OPENSTREETMAP TEAM

At HOT, we believe in one thing: people living in the most vulnerable areas of the world should guide and decide how geospatial data and technologies affect their lives. Acting both as an organization and a global movement, we connect communities in countries at high risk of disaster, humanitarian crises, poverty, and inequality with the resources and support they need to use geospatial knowledge to improve their well-being.

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