HELP.NGO FOUNDATION
WWW.HELP.NGO

HELP.NGO ANNUAL REPORT 2021

ABOUT US

Help.NGO is an International Non-Governmental Organization specializing in emergency response, preparedness, risk mitigation and prevention. Registered as a non-profit in the European Union with operations across the globe, Help.NGO leverages cutting-edge technological solutions and expertise to improve national and international disaster response mechanisms prior, during, and after emergencies.

Help.NGO focuses on increasing the capacity of national and international institutions through the provision of strategic guidance, technical expertise, and training. Drawing on a range of Subject Matter Experts, we help to enable local actors to respond efficiently and effectively across the entire humanitarian-development nexus – not only in the wake of an emergency but prior to and throughout the disaster life cycle.

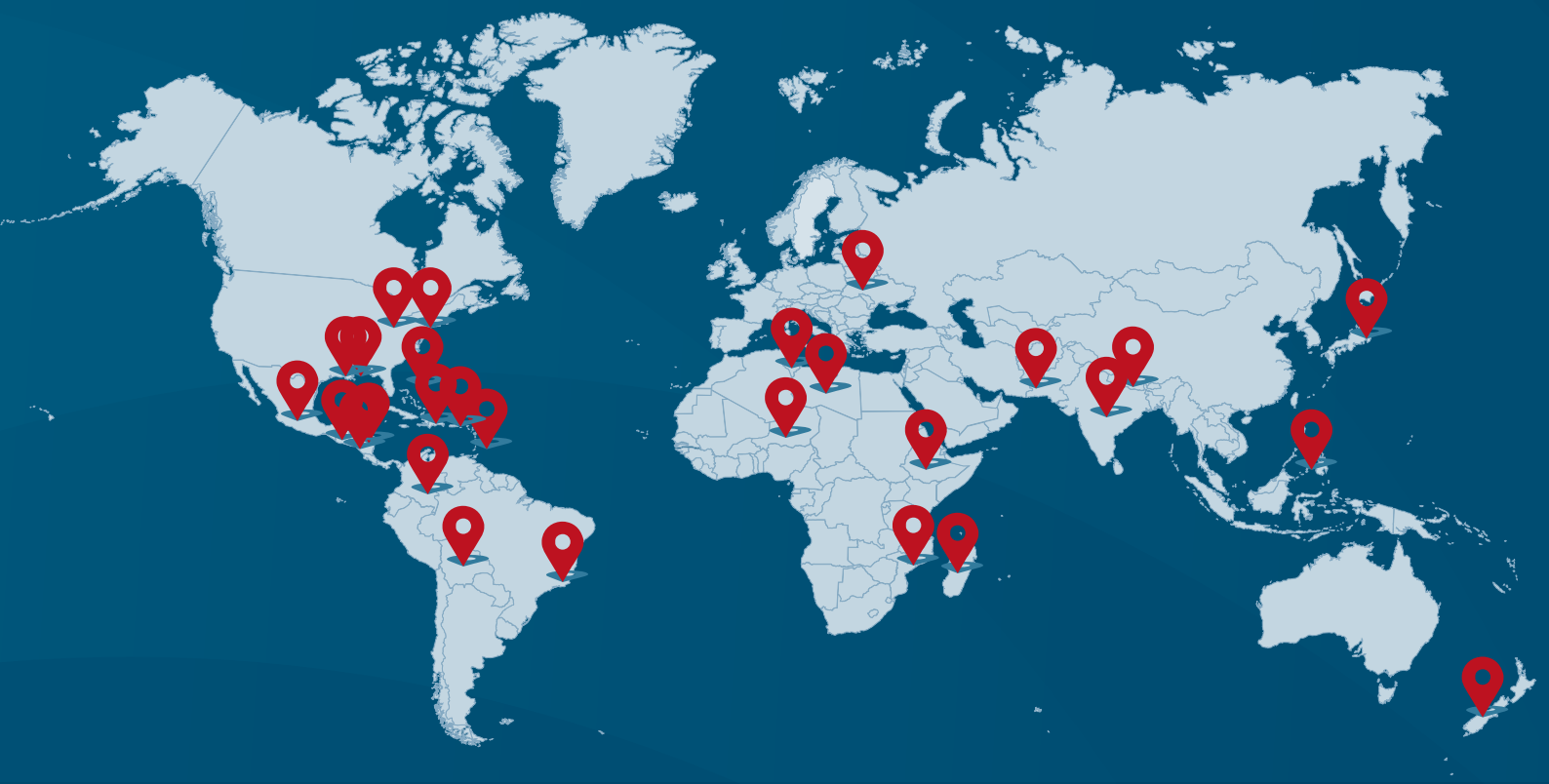
Through the co-development of solutions with private and public sector leaders, we aim to optimize the use of time, resources, and funding in all aspects of our humanitarian and development operations. By providing experts-on-mission, deploying predefined service packages, delivering capacity-building assistance, and supporting sustainability, Help.NGO has spent over a decade working to reduce the effects of natural disasters, man-made conflicts, economic disparity, climate change, epidemics, and other public health emergencies through enduring humanitarian and development assistance.

IN 2019, HELP.NGO BECAME ONE OF 55 ACTIVE STANDBY PARTNERS OF THE UNITED NATIONS. AS A MEMBER OF THE GLOBAL STANDBY PARTNER STEERING COMMITTEE, HELP.NGO HELPS SHAPE PARTNERSHIP ENGAGEMENT POLICY ACROSS UN AGENCIES.

UN STANDBY PARTNER

- CONNECTIVITY
- LOGISTICS
- FLIGHT OPERATIONS & UAS
- RESCUE DISCIPLINES
- ICS COORDINATION
- STRATEGIC CONSULTATION
- MEDICAL SUPPLY
- COMMUNICATIONS

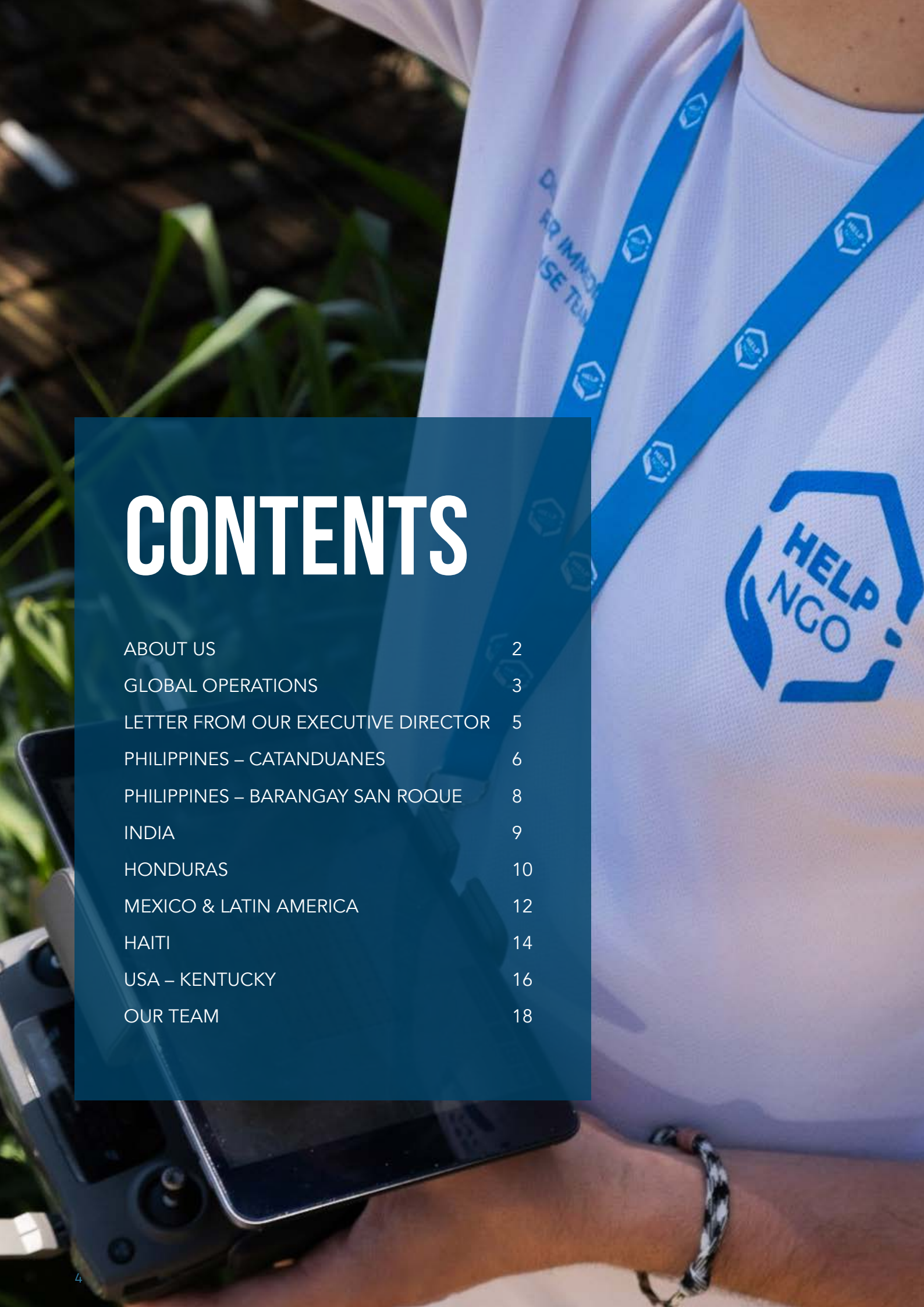
GLOBAL OPERATIONS



25
COUNTRIES

63
RESPONSES

417
SUBJECT MATTER EXPERT DEPLOYMENTS



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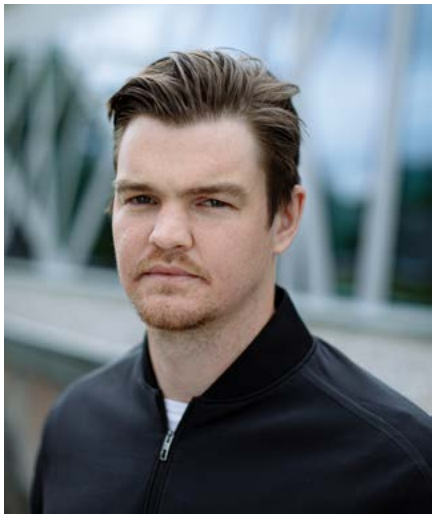
LETTER FROM OUR EXECUTIVE DIRECTOR



Brendan Harvey
Executive Director at Help.NGO

Crises seem to be coming closer and closer to home. COVID-19 has challenged unspoken assumptions about large-scale disasters or emergencies and where they happen.

While the scale of a disaster's effects depends upon the social context where they occur, the pandemic has reminded us all not only of our interconnectedness, but also the extent to which we are all subject to medical, economic, or political factors beyond our immediate control. At the same time, it also offered glimpses of what happens when people and institutions come together not only in the wake of an emergency, but come together proactively to take preventative measures, mitigate risk, and build resilient and responsive institutions. It also unfortunately showed us what happens when we don't.

With the world both re-emerging but also continuing to combat the COVID-19 pandemic, in 2021, Help.NGO has continued to grow.

We established a global base of operations, Fundacja Help.NGO Polska, in Gdansk, Poland in late 2020, which saw our staff expand to 21 in Poland alone.

We also saw our first graduating class of interns, many of whom are now either full-time with Help.NGO or have taken the lessons they have learned in humanitarian action out into the world. This growth has been central to tackling emergency response and recovery operations throughout the year. With a focus on sustainable and long-term initiatives, many will continue into 2022 and beyond.

In many ways, it was a uniquely challenging year. As in so many sectors, much of the broader humanitarian system came to a halt. This forced us to find creative ways to continue to fulfill our mission both remotely but also in the field. Leveraging Humanitarian Open Street Mapathons with private sector partners like Amazon Web Services (AWS), we improved baseline imagery accessible to the broader humanitarian community. In the wake of Eta and Iota, over 1,200 buildings across both Nicaragua and Honduras were identified and digitally mapped. Similar Mapathons were held after Typhoon Goni in the Philippines, where our Innovation Director Matt Cua continues to respond to the super typhoons that routinely affect the region.

Due to the generous funding support from the Internet Society Foundation (ISOC Foundation), we also addressed connectivity disruptions globally at sites set up to respond to the COVID-19 pandemic. Help.NGO Subject Matter Experts assembled critical connectivity resources for over 1,000 healthcare workers across 4 continents, supporting the treatment of tens of thousands of patients by standing up over 150 internet connectivity sites and internet points of presence in 7 countries. This included providing connectivity to over 100 ambulances and other emergency vehicles with local partners in India. We also continued to expand connectivity access in Haiti, as well as providing secure communications for the United Nations response effort, where post-earthquake unrest and a wave of COVID-19 infections combined to put increased strain the Haitian healthcare system.

2021 also provided unique opportunities to develop and deploy cutting-edge technological solutions co-developed with Amazon Web Services. This included massively expanding our drone processing capacity, which was then leveraged in the wake of historic tornadoes in Kentucky to create a high-resolution map of the entire affected area in Marshall County. Shifting rapidly from a pre-planned simulation to an actual response, Help.NGO and private sector partners including Cubic, Kymeta, and AWS showed striking flexibility in rapidly changing tack and responding for real.

AWS volunteers – both in the field and remotely – also showed particular resilience in shifting from a research to a response context, bring their unique set of skills to where they were needed most on short notice.

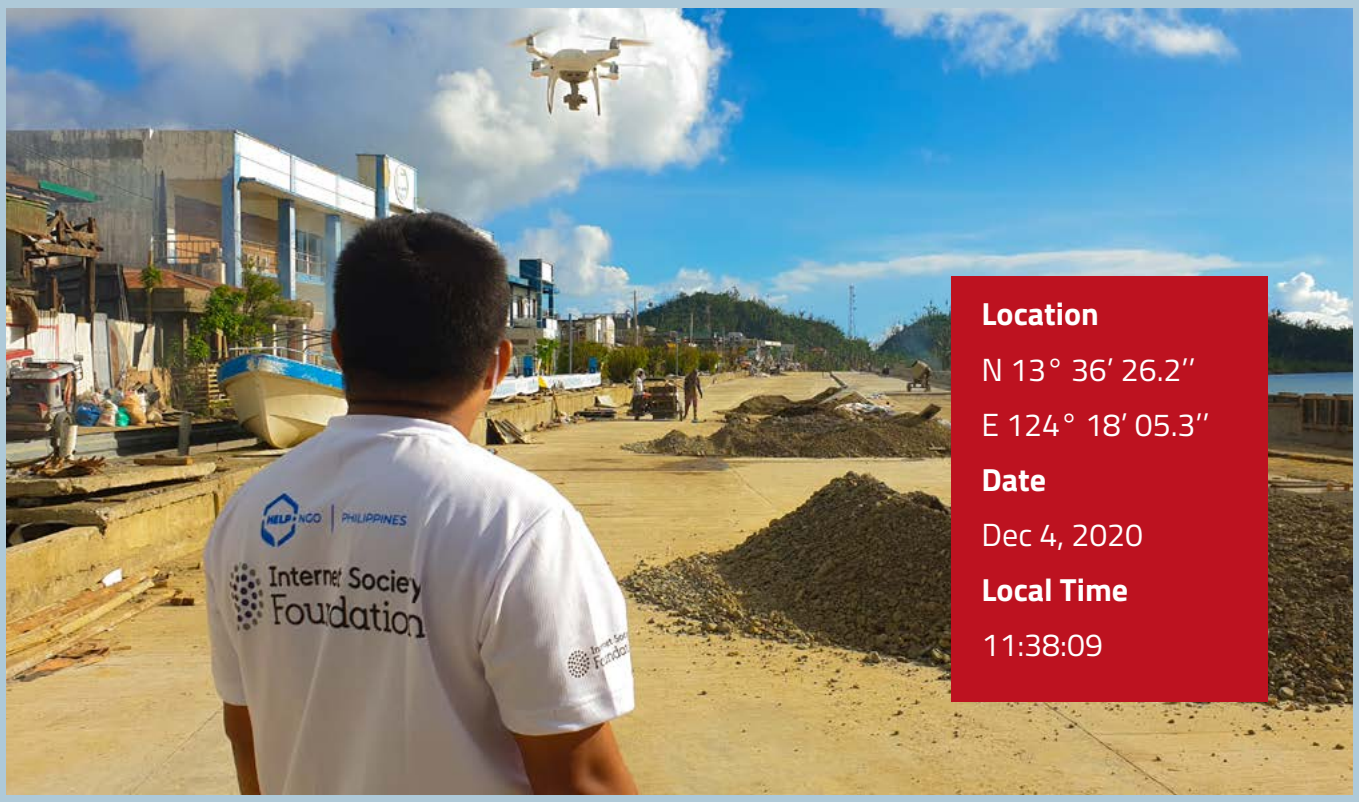
As we look forward to 2022, I want to send a special thank you to our donors and partners. Without your generosity, none of our work would be possible. We look forward not only to your continuing support, but also to leveraging those technological solutions that have incredible potential to improve and reshape the way the entire humanitarian community is able to respond to disasters. I also want to thank our staff. Without your organization and engagement, the success of our operations would not be possible.

In light of the year's challenges, our resolve to continue improving our response capacity has only strengthened, as has our commitment to using the latest technology to build the resilient and responsive institutions we need to tackle the challenges on the horizon.

Brendan Harvey

RESPONSE IN CATANDUANES

Known locally as Super Typhoon Rolly, Super Typhoon Goni made landfall in the Philippines as a Category 5 storm, causing the near total destruction of infrastructure and private property on multiple islands in the Philippines. Goni struck Catanduanes Island at its peak intensity, with sustained winds of up to 315 km/h (196 mph). The over 12 inches of rain that accompanied the typhoons resulted in devastating landslides.



Location
N 13° 36′ 26.2″
E 124° 18′ 05.3″
Date
Dec 4, 2020
Local Time
11:38:09

GONI WAS THE MOST INTENSE TROPICAL CYCLONE OF 2020. IT REMAINS ONE OF THE MOST INTENSE TROPICAL CYCLONES ON RECORD, LEAVING 1.6 MILLION PEOPLE AFFECTED. 125 CITIES AND TOWNS WERE LEFT WITHOUT ELECTRICITY. AREAS LOCATED IN VALLEYS AND NEARBY MOUNTAINS WERE RENDERED UNINHABITABLE, AND LOCAL FARMERS – SUCH AS THE ABACA WEAVERS – WERE PARTICULARLY AFFECTED.

1,600,000 PEOPLE AFFECTED BY SUPER TYPHOON GONI

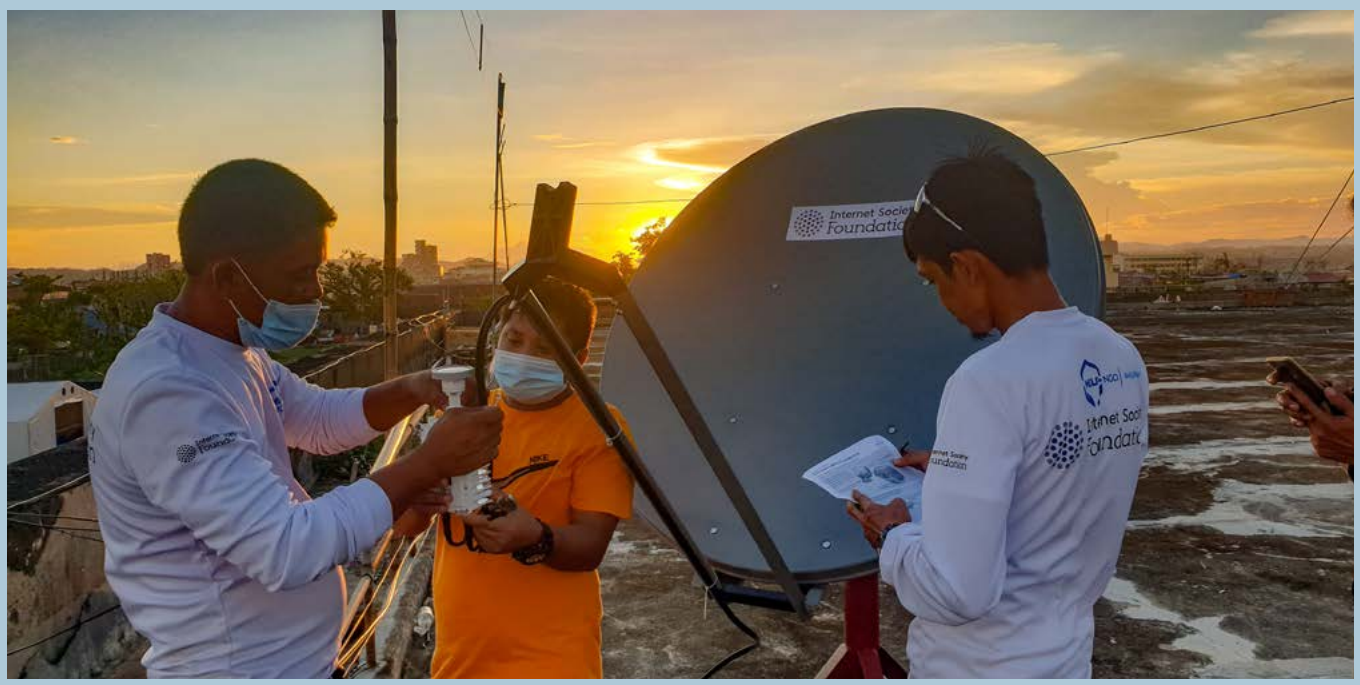
DISASTER RESPONSE

UAS HIGH-RESOLUTION MAPPING

Help.NGO drone pilots mapped more than 20 towns in just 3 days, creating high-resolution drone assessments of the entire affected area. This enabled local officials to quickly assess damage levels and begin preparing targeted relief packages for those affected. The maps created by Help.NGO Innovation Director Matt Cua's team shed light on the scale of the disaster and the obstacles this community was forced to endure. Many of the affected farmers have yet to return to their farms and homes due to damaged crops.

RESTORING CONNECTIVITY

Thanks to generous financial support from the Internet Society Foundation (ISOC Foundation) as part of Help.NGO's ISOC CONNECT grant, Help.NGO Subject Matter Experts provided connectivity in 4 of the most vulnerable and strategically important locations. These included the Emergency Operational Center (EOC) at the provincial capital, two hospitals, and the Abaca Farmer & Weaver Community Center. Network connectivity was therefore re-established for both responders as well as beneficiaries in those locations that needed it most.



Due to the very high risk of ensuing cyclones and their predicted intensity, nearby areas remain under constant monitoring as we look to continue our ongoing operations in the Philippines.

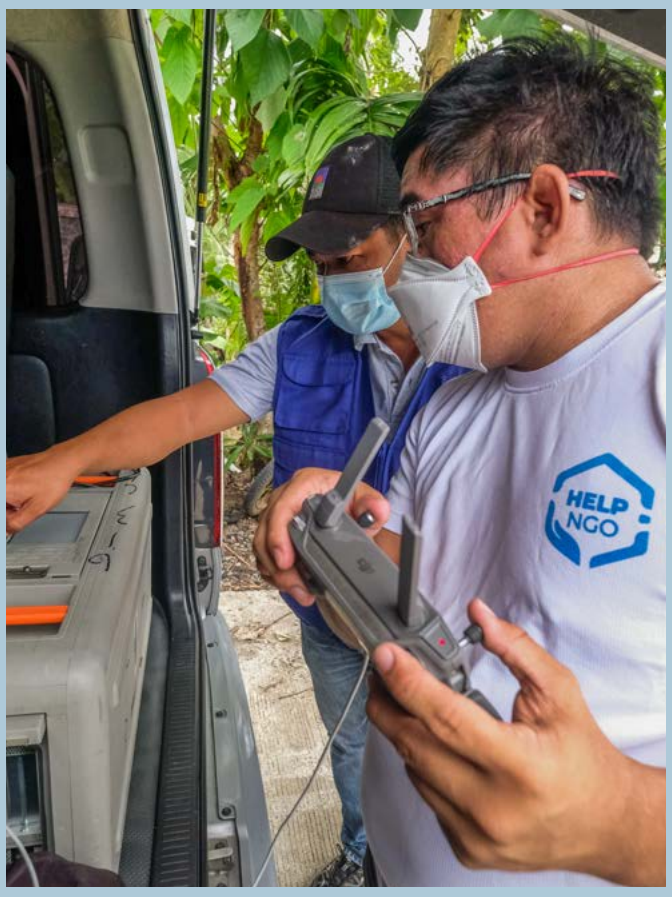
30 SQUARE KM MAPPED AND ASSESSED

2D & 3D MAPPING, PHOTOS, 360 PHOTOS, AND VIDEOS

STRATEGICALLY LOCATED INTERNET POINTS OF PRESENCE

RESPONSE IN BARANGAY SAN ROQUE

Help.NGOs response in the wake of Typhoon Goni continued at the request of the International Oranization for Migration (IOM) after powerful landslides in Barangay San Roque, Province of Albay, the Philippines.



DISASTER RESPONSE

UAS HIGH-RESOLUTION MAPPING

Prior to Typhoon Goni, Barangay San Roque was inhabited by more than 100 families. All of them saw their homes destroyed in the wake of powerful landslides.

After a formal request for assistance from the International Organization for Migration (IOM), Help.NGO deployed an on-site team led by our Innovation Director, Mattahew Cua, to create drone hazard maps of the 300 hectares devastated by landslides.

Supported by the Internet Society Foundation (ISOC Foundation), and thanks to Snowball Edge technology provided by Amazon Web Services (AWS), Help.NGO Subject Matter Experts' implementation of mobile-server technology allowed Help.NGO pilots to collect, process and deliver drone data.

IOM and local authorities then used these maps to decide where and how many people required relocation.

OVER 300 HECTARES MAPPED AND ASSESSED

PHOTOS, 360 PHOTOS, AND VIDEOS

HIGH-RES AERIAL MAP AND 3D MODEL OF THE SITE

RESPONSE IN INDIA

According to official government figures, India has the second highest number of confirmed COVID-19 cases globally. With such a significant case load, the country's health services prompted significant external help from private entities and NGOs.

One example is HelpNow which is a 24/7 ambulance network. Given the number of cases, HelpNow found itself facing a significant increase in demand as well as challenges in equipping its ambulances with connectivity capacity.

DISASTER RESPONSE

With funding from the Internet Society Foundation (ISOC Foundation) and Amazon Web Services (AWS), Help.NGO assisted HelpNow in both scaling their ambulance dispatch service to 126 vehicles and equipping them with reliable connectivity.

This has led to improvements in their ambulance service, including the introduction of a number of improved features like live tracking, fleet replay, geofencing, real-time notifications, and pushing key alerts to drivers.

Help.NGO began assisting HelpNow in scaling their ambulance dispatch service beginning in 2020, however, it has continued through 2021 into 2022. Throughout this period, Help.NGO provided Help.NGO with additional AWS Cloud credits (100,000 USD) from AWS.

By leveraging connectivity on the move via cloud computing, ambulance drivers did not have to rely on a central dispatching location, what enabled a significant increase in dispatch efficiency. This has helped HelpNow's fleet across India to better respond to the COVID-19 pandemic that swept the country.

HELPNOW IS A 24/7 AMBULANCE NETWORK PROVIDING WELL-EQUIPPED AMBULANCE SERVICES TO PATIENTS, HEALTHCARE WORKERS, HOSPITALS, TESTING LABS, AND GOVERNMENT BODIES THROUGHOUT INDIA. THE NETWORK OPERATES THROUGH A HELPLINE LOCATED IN MUMBAI, DELHI, AND BANGALORE.

HELPNOW AMBULANCE SERVICES

RESPONSE IN HONDURAS

On Monday, November 6th, 2020, Hurricane Iota made landfall near Haulover, Nicaragua as a Category 4 storm with winds of up to 249 km/h (155 mph). Just weeks prior, Hurricane Eta made an impact just 15 miles south, also as a Category 4. Despite evacuations, both storms affected over 600,000 families. In total, approximately 50% of the population was affected across Honduras.

Both storms left behind extensive damage to physical infrastructure, communications networks, and internet service. Though people throughout Central America were evacuated ahead of the storm's landfall, most of these makeshift shelters were not designed to hold the number of people in need of temporary housing. In light of COVID-19, it became clear that these cramped spaces could become breeding grounds for the pandemic.

In 2021, the COVID-19 crisis and back-to-back tropical storms increased the poverty rate in the country by 4%, leaving 4 out of every 10 people living in poverty. The storms alone left at least 2.8 million people in dire need of humanitarian assistance.

DISASTER RESPONSE

Thanks to generous funding from the Internet Society Foundation (ISOC Foundation), Help.NGO was able to respond to various challenges.

MAPATHONS

In coordination with Amazon Web Services (AWS) Disaster Response Team volunteers, we conducted four Humanitarian Open Street Mapathons alongside the Humanitarian OpenStreetMap team. Together, we improved baseline imagery accessible to the broader humanitarian community. In the wake of Eta and Iota, over 1,200 buildings across both Nicaragua and Honduras were identified and digitally mapped. Help.NGO leveraged the collected data sets to assess structure density and measure the total storm surge with the aim of identifying and optimizing deployment connectivity support.

PROVIDING CONNECTIVITY

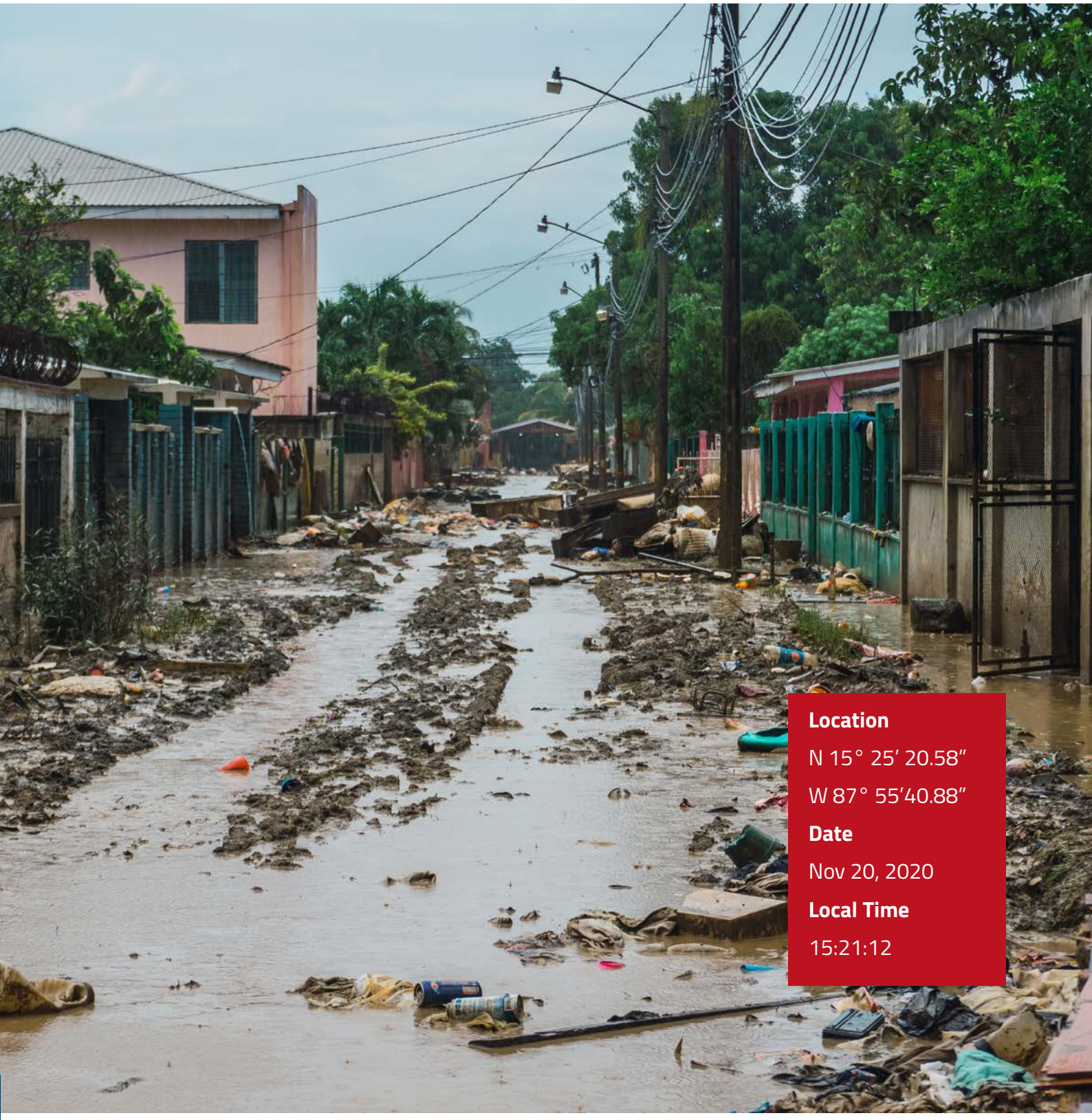
Once on the ground and working with local partners like the International Committee of the Red Cross (ICRC) and Télécoms Sans Frontières (TSF), Help.NGO learned that many migrants and internally displaced people (IDP) still had their cell phones and mobile devices. While they could access mobile networks, they often did not have the money to add credit to their cellular accounts. Even if they could, the telenetworks limit usage to priority users.

Using ISOC funds, Help.NGO Subject Matter Experts set up LTE Points of Presence (PoP), focusing on schools. Since classes were not taking place amidst a pandemic, schools across San Pedro Sula functioned as shelters. Ultimately, these LTE PoP not only allowed those residing there to access the internet but further supported communities afterward, with routers turned over to local schools for use once they had transitioned back to in-person teaching.

EVERY YEAR IN CENTRAL AND SOUTH AMERICA, HUNDREDS OF THOUSANDS OF PEOPLE FLEE FROM POVERTY, VIOLENCE, AND POLITICAL INSTABILITY. THE CITY OF SAN PEDRO SULA HAS SERVED AS A FREQUENT STOP FOR MIGRANTS. BETWEEN DRUG-RELATED VIOLENCE, ECONOMIC DISLOCATION, AND NOW DEVASTATING HURRICANES, THE PEOPLE OF HONDURAS CONTINUE TO FACE MULTIPLE THREATS OF DISPLACEMENT.

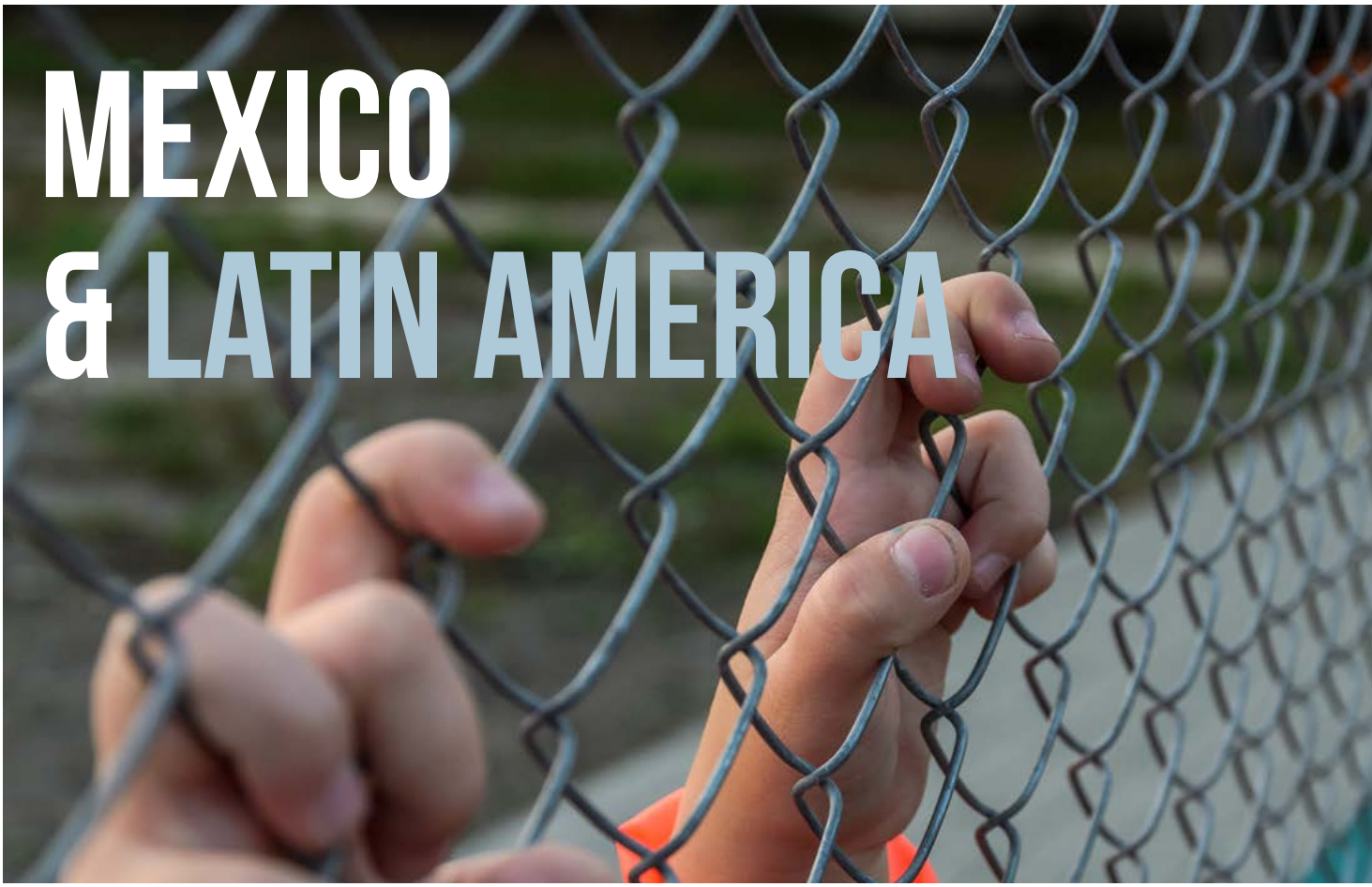
4,000,000

PEOPLE AFFECTED BY STORMS ETA AND IOTA



1,200
IDENTIFIED AND MAPPED BUILDINGS

18
SITES ASSESSED



MEXICO & LATIN AMERICA

Due to a variety of political and economic factors, Central and South America face several challenges associated with increased migration. The outbreak of the COVID-19 pandemic only served to exacerbate the situation in the region. Amidst this ongoing crisis, migrants have increasingly faced a particularly difficult obstacle: a lack of information.

In response to this ongoing issue, Help.NGO, Télécoms Sans Frontières (TSF) and United Nations International Organization for Migration (IOM) launched a joint operation, providing information screens temporary shelters across Mexico and Latin America.

DISASTER RESPONSE

LCD SCREENS

This initiative helped ensure migrants had access to relevant, accurate, and timely information both about COVID-19 and also issues related to their migration. The screens aim at increasing awareness among migrants of the types of assistance and protection resources that they are able to access but might not be aware of.

Currently, these screens have been set up in 30 shelters across Mexico, Guatemala, and Colombia. These screens function to:

- Provide those in need with accurate and trustworthy information on the current migratory situation;
- Inform migrants about already existing protection measures or humanitarian services and how to access them;
- Provide COVID-19 guidelines and health and safety recommendations;
- Create an effective channel for the rapid dissemination of official information or notices deemed important by local authorities.

ASSESSMENT RESULTS

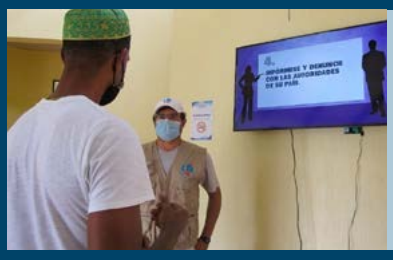
TSF conducted a series of assessments among beneficiaries and shelter managers to evaluate the level of satisfaction of the initiative.

99%

OF MIGRANTS STATED THAT THEY RECEIVED A PIECE OF INFORMATION THAT WAS NOT ONLY NEW FOR THEM BUT ALSO CONSIDERED CRUCIAL.

55%

OF MIGRANTS FELT SAFER AFTER WATCHING THE INFORMATION ON THE SCREENS.



100%

OF SHELTER MANAGERS RECOMMENDED THE USE OF SCREENS IN OTHER REFUGEE CENTERS.

Help.NGO has continued this engagement through 2022, expanding the initiative and installing 15 new screens in migrant shelters and support spaces in South America (Colombia) as well as Central America (Panama).

30
INSTALLED SCREENS IN 29 SHELTERS

1,076
DAILY SCREEN USERS

100%
OF SATISFIED SHELTERS MANAGERS

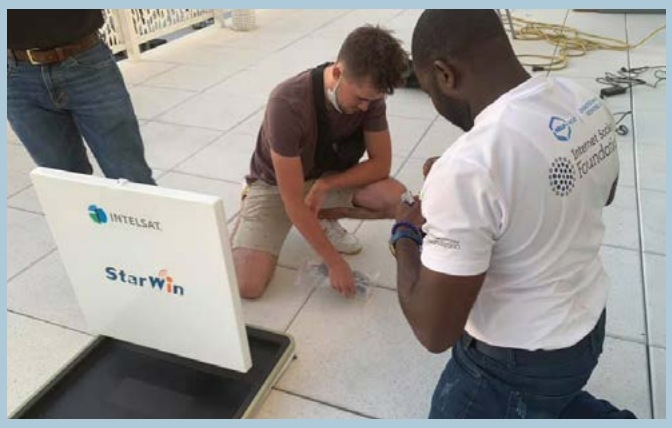
RESPONSE IN HAITI

Positioned along the Atlantic hurricane pathway, Haiti is particularly vulnerable to natural disasters. On Saturday, August 14th, 2021, a 7.2-magnitude earthquake struck the Tiburon Peninsula, leaving more than 650,000 in need of humanitarian assistance. To date, the United Nations has reported a total of 800,000 people that were either directly or indirectly affected by the earthquake. It was the deadliest natural disaster of 2021.

Location
N 18° 32′ 20.06″
W 72° 21′ 8.17″
Date
Aug 22, 2021
Local Time
10:28:12

SINCE 2004, HAITI HAS SEEN MULTIPLE DEVASTATING NATURAL DISASTERS. THIS INCLUDES A PARTICULARLY DESTRUCTIVE EARTHQUAKE IN 2010 RESULTING IN THE DEATHS OF OVER 220,000 PEOPLE AND BROUGHT MASSIVE INFRASTRUCTURAL DAMAGE TO PORT-AU-PRINCE.

800,000 PEOPLE AFFECTED BY THE 7.2 MAGNITUDE EARTHQUAKE



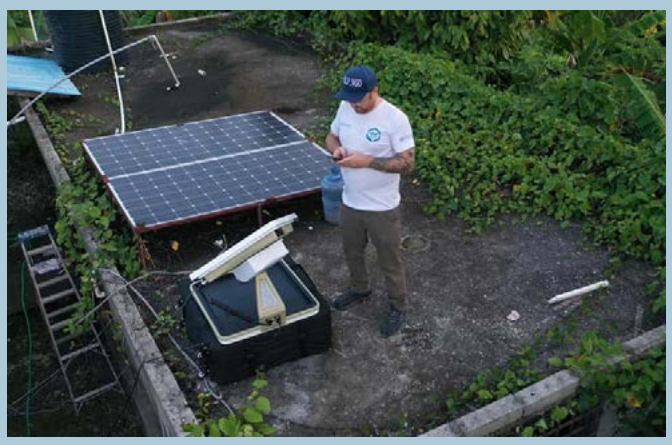
RESTORING CONNECTIVITY

With support from the Internet Society Foundation (ISOC Foundation) and Intelsat, Help.NGO provided internet connectivity for first responders as well as residents of the earthquake-affected areas.

This included 125 internet LTE Points of Presence (PoP) for affected communities and medical facilities. Satellite dishes and VSAT technology were deployed to local hospitals and UNICEF headquarters in Les Cayes, enabling broadband connectivity for communities and places where infrastructure had seen significant damage.

Meanwhile, 10 were allocated for the United Nations and coordination bodies, thus ensuring that secure telecommunications capacity was available for the broader international humanitarian response. In our capacity as a UN Standby Partner, we also provided ICOM High-Frequency Radio Transmitters enabling direct communications between the World Food Programme (WFP) and their deployment teams.

Help.NGOs Disaster Immediate Response Team (DIRT) and local ISOC Foundation personnel continue to monitor the ongoing recovering, offering equipment maintenance and emergency support on an ongoing basis.



UAS HIGH-RESOLUTION MAPPING

At the request of Haitian authorities, affected rural areas that had not been scanned or mapped via satellite imagery were mapped using drones (UAS). The high-resolution maps and 3D models were then handed over to the local government and United Nations local representatives. Beyond providing damage assessments, these maps continue to be used to inform the ongoing rebuilding and recovery process.

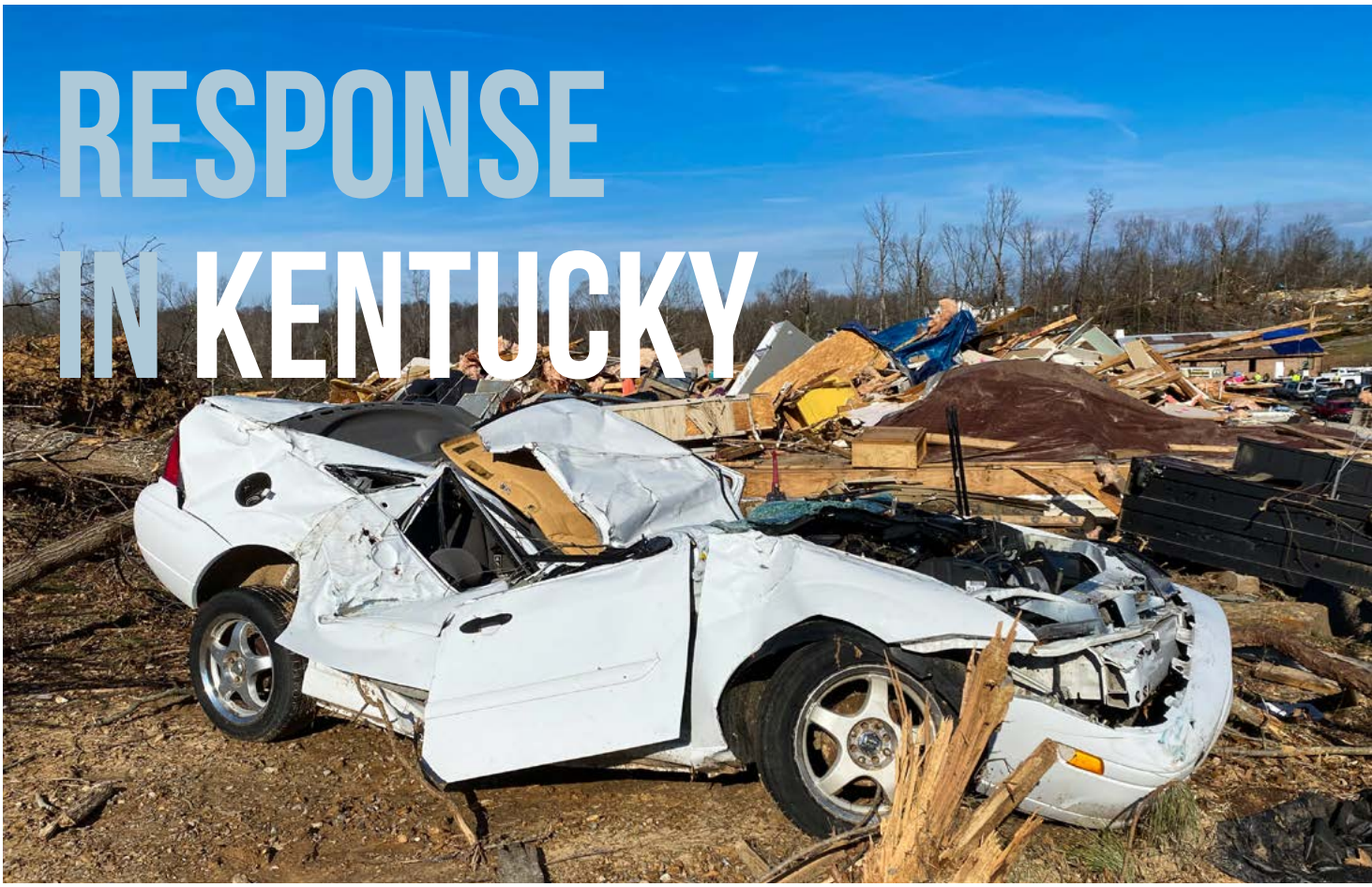
HELP.NGO HAS A LONGSTANDING CONNECTION TO HAITI. THE GLOBAL DISASTER IMMEDIATE RESPONSE TEAM (GLOBAL DIRT) WAS FOUNDED IN THE WAKE OF THE 2010 PORT-AU-PRINCE EARTHQUAKE. PROVIDING MULTI-DIMENSIONAL HUMANITARIAN SUPPORT SINCE ITS INCEPTION, HELP.NGO HAS MAINTAINED A PERMANENT PRESENCE IN THE COUNTRY, MONITORING AND PREPARING TO RESPOND TO NATURAL DISASTERS.

125
LTE POINTS OF PRESENCE INSTALLED

10
INTERNET POINTS OF PRESENCE FOR UN OPERATIONS

650,000
360 PHOTOS

RESPONSE IN KENTUCKY



December 10th was a devastating Friday evening as six US states (Arkansas, Illinois, Kentucky, Mississippi, Missouri, and Tennessee) were struck by catastrophic tornadoes. The loss and damage were however significantly serious in Kentucky. The tornadoes brought destruction to at least 1,000 homes and turned 15,000 structures to rubble, including homes, power facilities, a factory, and an Amazon warehouse.

In the early days of December, Help.NGO and Amazon Web Services (AWS) had been planning an extensive live simulation-exercise. However, after the tornadoes struck, response teams and resources initially planned for the exercise were marshaled to respond for real. Showing incredible flexibility, Help.NGOs Disaster Immediate Response Team alongside a number of partners – including AWS, Satcube, Kymeta, Cubic, and Intelsat – managed to rapidly change course and respond within 24 hours of impact.

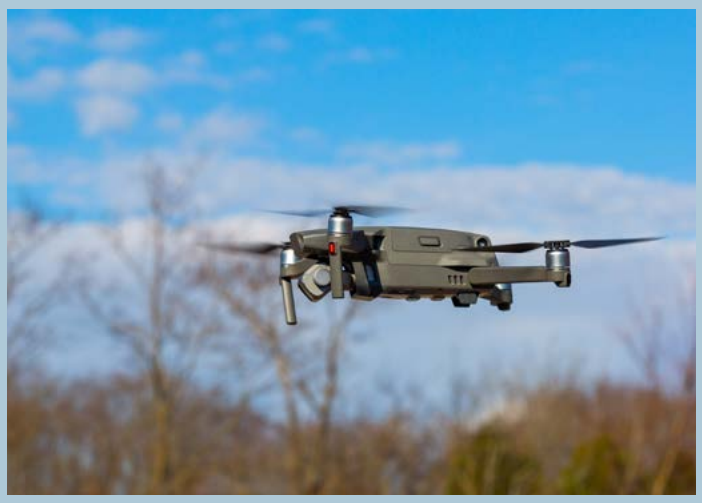
DISASTER RESPONSE

UAS HIGH-RESOLUTION MAPPING

Alongside our partner Amazon Web Services (AWS), Help.NGO UAS pilots leveraged Snowball Edge devices to quickly process imagery from more than 20 drone missions in less than two hours, covering the most affected areas of Marshall County. This data was used to create detailed 2D and 3D maps that Help.NGO handed over to local government officials to use to assess the scale of the damage and strategize recovery efforts.

24 HOURS

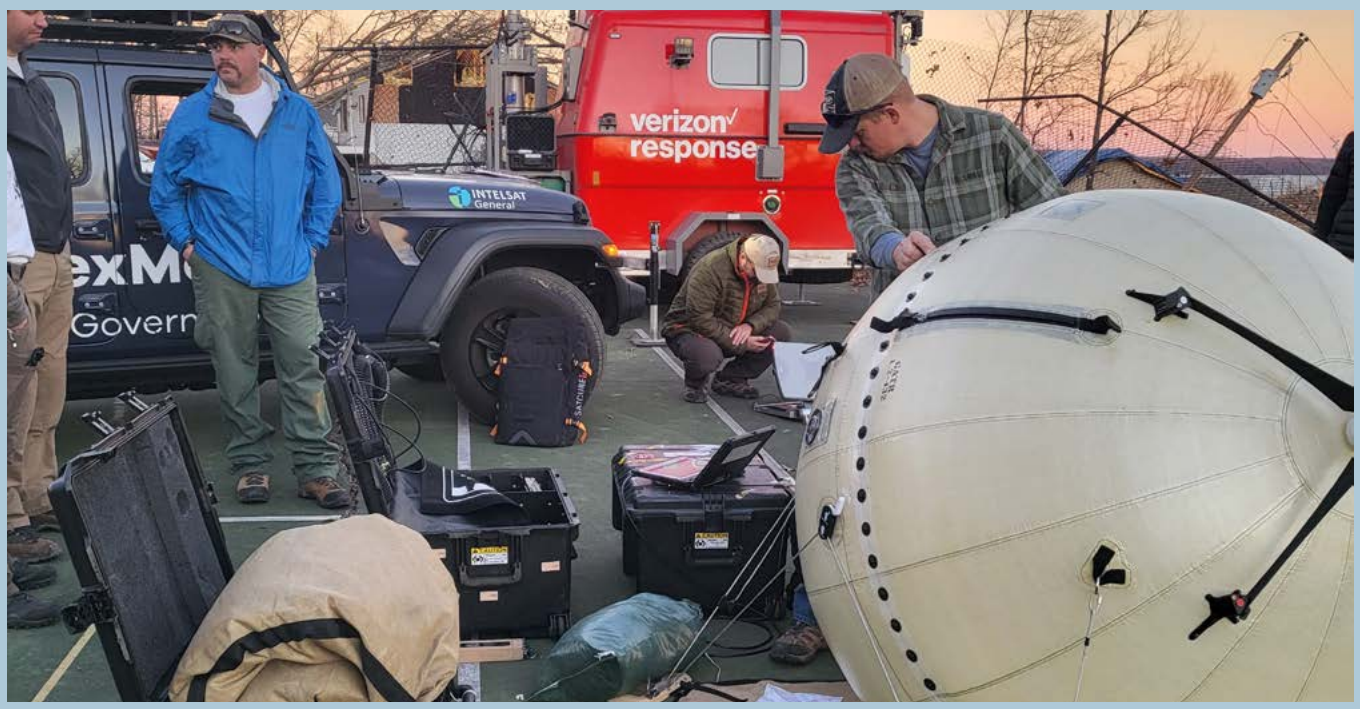
HELP.NGO AND PARTNER RESPONSE TIME



PROVIDING CONNECTIVITY

Working closely with partners, Help.NGO Subject Matter Experts focused on assisting first responders with providing reliable, high-bandwidth connectivity to ensuring could communicate and facilitate the broader response effort.

Connectivity capacity provided by Help.NGO helped allow first responders to communicate with the regional emergency operations center while mobile network operators worked to bring in additional capacity to fully restore the network infrastructure.



Using an SUV equipped with two Kymeta Communications on the Move Terminals (COTM), a Satcube Communications on the Pause Terminal (COTP), and a Cubic GATR Inflatable Satellite Antenna (ISA), the team worked to provide internet connectivity in areas experiencing a total loss of communication infrastructure. Portable terminals were deployed, providing connectivity not only to rescue teams but also to communities in need.

20
UAS DRONE MISSIONS

10
HECTARES OF MAPPED AREA

OUR TEAM

Help.NGO was founded in 2010 by first responders in the wake of the 2010 Port-Au-Prince Earthquake as Global DIRT (Disaster Immediate Response Team). These founders realized that rapidly evolving technological solutions were capable of improving the capacity of international institutions responding to disasters and complex emergencies.

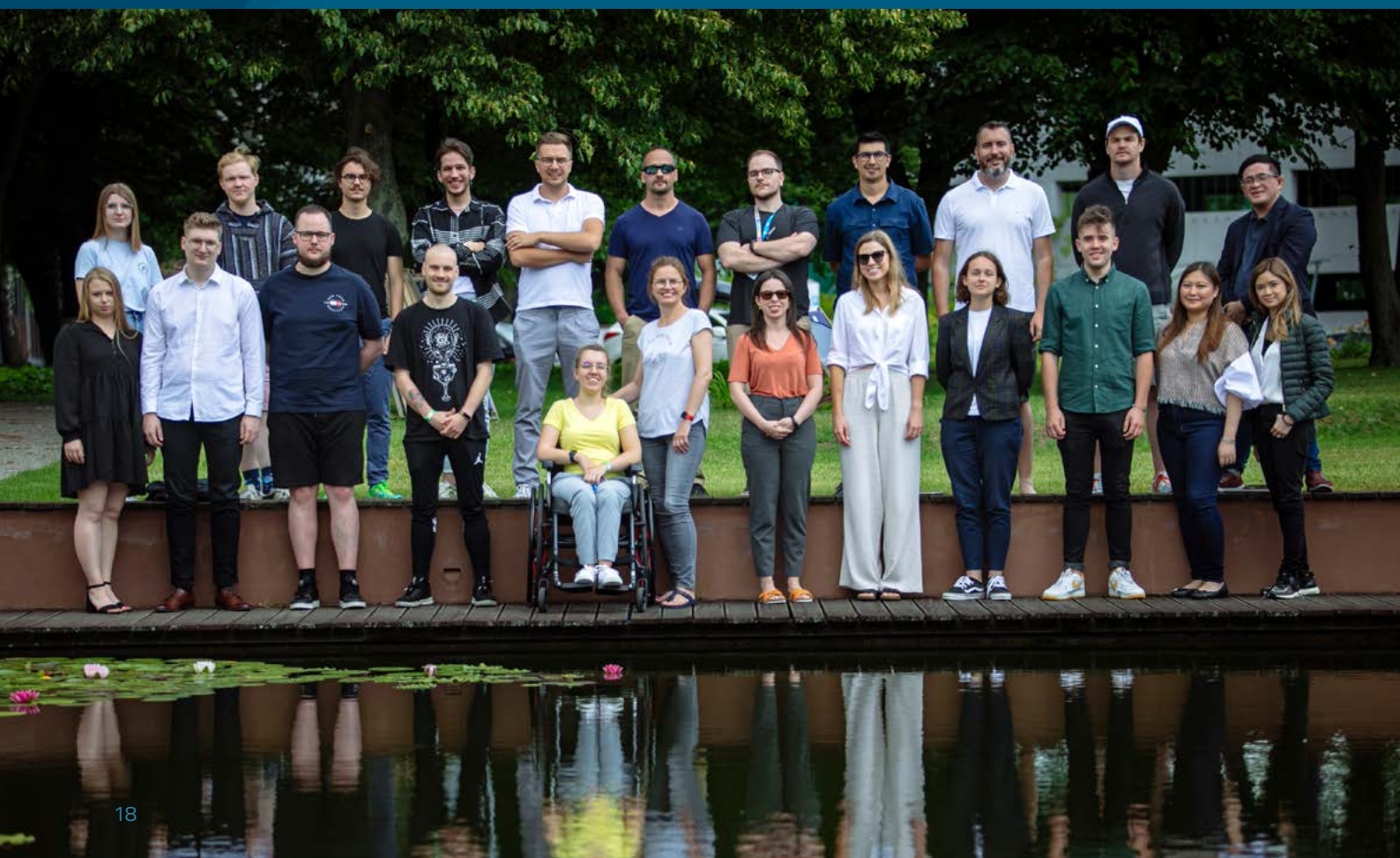
Our commitment to both innovation and the democratization of access to technology stretches back to our founding in 2010. 7 years later, in August 2017, with a view towards widening our scope, Help.NGO was born.

In 2020, the organization expanded its already global presence by opening a EU-based headquarters in Gdansk, Poland.

Today, Help.NGO combines administrative, technical, and project management with field and operational expertise.

Our mission is to respond across the entire disaster response lifecycle: from response to recovery; from mitigation to preparedness. Help.NGO Subject Matter Experts represent a wide array of professional and personal backgrounds (civilian and ex-military; domestic and international; technical and administrative; academic and professional).

All of our Subject Matter Experts share a commitment to both helping those most in need and working to improve the international community's ability to prepare and respond to the expanding set of emergencies and crises facing the globe.



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