HELP.NGO

ANNUAL REPORT 2022

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

26
COUNTRIES

67
RESPONSES

417
SUBJECT MATTER
EXPERT DEPLOYMENTS

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LETTER FROM OUR EXECUTIVE DIRECTOR

Brendan Harvey
Executive Director at Help.NGO

2022 has been a year of exceptional challenges and opportunities for Help.NGO, the humanitarian community, and the world at large. The COVID-19 pandemic continued to ravage communities globally, while natural disasters and armed conflicts added to the already significant burden of suffering.

As you read through this report, you will discover various ways Help.NGO has worked to tackle these crises head-on. Our team diligently adapted to evolving circumstances, ensuring the uninterrupted provision of aid and increasing the capacity of a variety of relief organizations. Thanks to strong partnerships with our donors, collaborators, and volunteers, our initiatives have been able to improve the lives of the individuals we serve and create more resilient communities.

2022 feels like it began in earnest on February 24th, when Russia invaded Ukraine in a major escalation of what has been an ongoing conflict since 2014. As the only United Nations Standby Partner based in a country bordering Ukraine, the conflict hit close to home, and the team immediately began helping to evacuate those at risk from Ukraine to Poland.

In the wake of the invasion, various aid organizations, including UN agencies, extended their relief efforts to assist the victims. Yet the absence of pre-existing UN presence in Western Poland became an impediment to scaling humanitarian operations.

To address this challenge, Help.NGO logistics and administrative staff established a hub to facilitate collaboration, coordination, and deployment services offered by NGOs, UN agencies, and private sector organizations. More broadly, our operations provided a range of support, including communications and technical assistance, logistics and administration, fuel procurement and distribution, and even a mobile convoy of food trucks with water, and heating.

Even while delivering extensive assistance in Ukraine, Help.NGO Subject Matter Experts continued to respond to crises around the world thanks to generous support from the Internet Society Foundation (ISOC) and Amazon Web Services (AWS).

In India, Help.NGO provided support to HelpNOW, a 24/7 ambulance network, by augmenting its communications capabilities. Their network has expanded and now handles over 34,000 emergency calls annually. In addition, Help.NGO has maintained its collaboration with Télécoms Sans Frontières (TSF) and the United Nations International Organization for Migration (IOM), installing 15 informational screens in migrant shelters and assistance centers in Colombia and Panama. Following flooding and landslides in Brazil, Help.NGO's drone pilots mapped affected areas in both 2D and 3D. These maps will serve as a reference for future planning and assist in rebuilding efforts.

In Haiti, Help.NGO responded to multiple crises, including an earthquake, presidential assassination, and civil unrest, by deploying a team of SMEs and leveraging its local presence at the Port-au-Prince hub to provide secure connectivity resources to NGOs and UN partners on the ground. In Florida, Help.NGO continued its long history of supporting coastal communities in the US and Caribbean throughout the Atlantic Hurricane season.

2022 also saw Help.NGO expand its humanitarian efforts by formally partnering with Humanitarian OpenStreetMap (HOTOSM), helping contribute to digital mapping projects in the wake of crises and creating detailed open source data accessible to the humanitarian community as a whole.

The year saw an increased emphasis on not only responding to crises, but also on risk prevention, mitigation, and research & development. The Help.NGO team continues to take a proactive approach to disaster response by regularly conducting training and field exercises with technology collaborators. Through our partnership with AWS, Field Training Exercises (FTX) bring together experts in data and connectivity to simulate the deployment of critical services such as internet, cellular connectivity, and power.

As we enter 2023, our provision of humanitarian commitment in Ukraine persists, alongside our ongoing commitment to strengthening the preparedness of communities worldwide for any future crises they may face.

My profound appreciation goes out to our benevolent donors, committed staff, and altruistic volunteers from across the globe. Thank you for your unwavering trust and support.

This annual report stands as a testament to the positive change we can collectively achieve in shaping a brighter future – one where we face the crises effectively and efficiently, prioritizing the most vulnerable amongst us.

Brendan Harvey

RESPONSE IN BRAZIL

On February 15th, the city of Petrópolis in Rio de Janeiro bore witness to the most severe rainfall recorded since 1932, resulting in the tragic loss of over 230 lives. In just three hours, the town received 250 mm of rainfall, a substantial increase from the monthly average of 185 mm. Located in mountain valleys, Petrópolis was not only affected by flooding, but also by 250 separate landslides. This resulted in severe destruction, with landslides continuing to pose a threat to communities across mountainous areas in Brazil.

Help.NGO received a formal request for assistance from the local Secretary of Economic Development, Energy, and International Relations. The organization contacted Amazon Web Services (AWS) for technical support and, within 48 hours, the team was ready to head to Brazil.

Location
S 22° 30' 40.56''
E 43° 10' 40.41''
Date
Feb 26, 2022
Local Time
15:17:04

DISASTER RESPONSE

UAS HIGH-RESOLUTION MAPPING

Over four days, Help.NGO Subject Matter Experts (SMEs) flew Unmanned Aerial Systems (UAS) to produce high resolution maps of the affected area in two and three dimensions. These maps were handed over to local authorities to aid in formulating an effective action plan and to serve as a reference for future planning and recovery efforts.
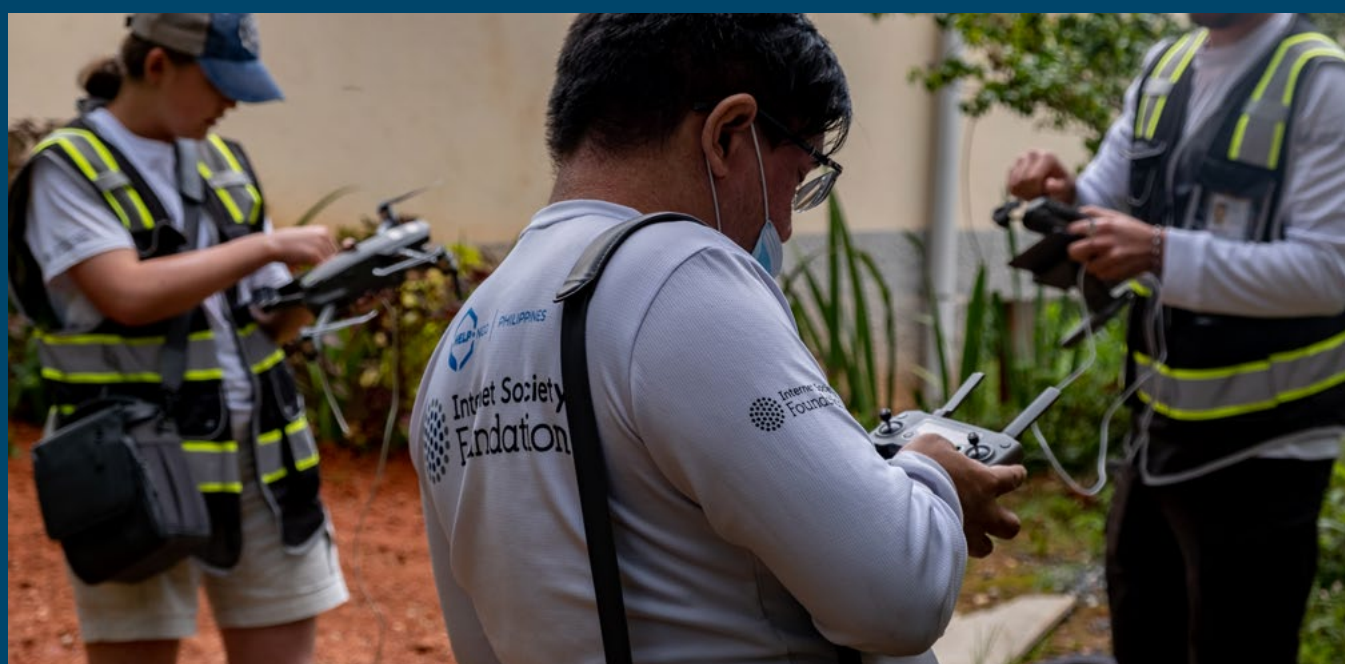
AWS ASSISTANCE

By leveraging AWS Cloud computing, Help.NGO and members of the AWS Disaster Response Team (AWS DRT) collaborated with Brazil's State Environmental Institute (INEA) to secure storage for historical weather data. INEA, located in Rio de Janeiro, is entrusted with the task of overseeing the region's environment and preserving its natural resources. The computing power and storage capacity of AWS Cloud serve to support INEA in processing and analyzing weather information, thereby deepening their comprehension of local weather patterns, and mitigating the risks of future landslides and their consequences.

The Help.NGO drone team also employed AWS Snow devices to generate high-resolution maps and models of the impacted regions in real-time, dramatically hastening the processing of imagery pipeline. These portable devices enabled Help.NGO to stockpile vast amounts of data in a mobile environment, empowering SMEs with the freedom to carry out flight operations from any location within the affected areas.

IMMEDIATE RESPONSE WITHIN LESS THAN 48 HOURS

AERIAL MAP, DIGITAL ELEVATION MODEL & 3D VISUALIZATION

OVER 160 FLIGHTS RESULTING IN 400 GB OF RAW DATA

OPERATIONS IN UKRAINE

On February 24, 2022, Russia launched a major escalation of the ongoing conflict in Ukraine that had been ongoing since 2014 by invading the country. This invasion triggered the largest refugee crisis in Europe since World War II, with over 10 million Ukrainians fleeing the country and a third of the population being displaced.

Location

N 50° 31' 18.30''

E 30° 15' 1.98''

Date

May 21, 2022

Local Time

15:28:45

THE FIRST 30 DAYS OF ANY INTERVENTION ARE A CRUCIAL PERIOD FOR THE EFFECTIVE SCALING OF EFFICIENT SUPPORT TO AFFECTED COMMUNITIES. BY PROACTIVELY IDENTIFYING TRENDS AND ANTICIPATING NEEDS, THE HUMANITARIAN COMMUNITY CAN ENSURE THAT LARGE-SCALE OPERATIONS RAMP UP IN A DATA-DRIVEN WAY THAT MATCHES EVOLVING DEMANDS.

17,700,000 PEOPLE IN NEED OF HUMANITARIAN ASSISTANCE

In response to a critical need on the ground, Help.NGO and partners like Amazon Web Services (AWS) sprang into action on February 24th. They immediately activated a standby roster of available personnel, prepositioned Subject Matter Experts (SMEs) at humanitarian logistics hubs, and deployed service packages of equipment to ensure operations could start immediately. Within 24 hours, the combined Help.NGO-Amazon team developed a plan and positioned personnel on the ground to support it.

UNITED NATIONS STANDBY PARTNERSHIP

As the only UN Standby Partner based in a country bordering Ukraine, Help.NGO swiftly activated as a standby partner in support of the UN World Food Programme (WFP) and the Global Logistics Cluster (GLC), which is responsible for coordinating over 1,000 global partners in delivering critical assistance to disaster zones by establishing a supply chain, common services, and identifying needs on the ground. As the UN did not have a presence at the location where the humanitarians were staging in Poland, Help.NGO deployed a team of logisticians and administrative personnel to establish a hub for NGOs, UN Agencies, and the private sector to collaborate, coordinate, and deploy assistance.

FUEL

Help.NGO collaborated with its long-standing partner Fuel Relief Fund (FRF) to provide free fuel to local and international humanitarian organizations, including the UN. The joint team successfully procured, transported, and delivered petrol and diesel, enabling truckloads of aid to reach vulnerable areas across the country. By partnering with a leading Ukrainian oil and gas company, they secured more than 17,000 liters of gasoline and over 27,000 liters of diesel fuel. This not only enabled the distribution of small on-demand quantities for emergency situations, but also facilitated larger-scale deliveries to the affected regions in Eastern Ukraine.

CONNECTIVITY

In collaboration with Amazon Web Services (AWS), Help.NGO deployed innovative technical solutions used by humanitarian actors throughout Poland, Moldova, and Ukraine. The use of end-to-end encryption and secure messaging technology through the AWS Cloud and across edge devices, facilitated by Wickr, enabled the constant connection of humanitarians in the field.

Providing stable connectivity was especially important when facilitating humanitarian convoys and visits to Ukraine by UN representatives. Help.NGO has provided connectivity utilizing Klas Boxes and Starlinks to over 300 humanitarians from over 50 organizations to date.

RESPONSE
IN FLORIDA

Hurricane Ian struck southwest Florida on September 28 as a Category 4 storm, causing widespread flooding and high winds with speeds reaching up to 155 mph (249 km/h). The destruction was staggering, with entire districts, islands, and coastlines ravaged, with damage and flooding extending into central Florida.

Location

N 26° 27' 5.59''

W 81° 56' 53.78''

Date

Oct 9, 2022

Local Time

15:28:12

Despite evacuation efforts, Hurricane Ian left nearly 140 fatalities in its wake, serving as a harrowing reminder of the power of natural disasters. The aftermath was marked by demolished structures, impassable roads, and disrupted livelihoods, with the cities of Fort Myers Beach and Naples bearing the brunt of the devastation, leaving millions without power and prompting mass relocations and refugee support.

2,400,000 PEOPLE IN FLORIDA WERE LEFT WITHOUT POWER

DISASTER RESPONSE

Help.NGO and the Amazon Web Services Disaster Response Team (AWS DRT) partnered to provide crucial support to first responders and affected communities in SW Florida. In the wake of the storm, many essential organizations were left without internet access, hindering their communication and ability to reach those in need.

To address this issue, Help.NGO and AWS DRT quickly deployed their expertise and resources, utilizing mobile Intelsat's Starwin and Starlink terminals to provide emergency connectivity.

Within a week, nearly 100 vulnerable locations had reliable access to internet.
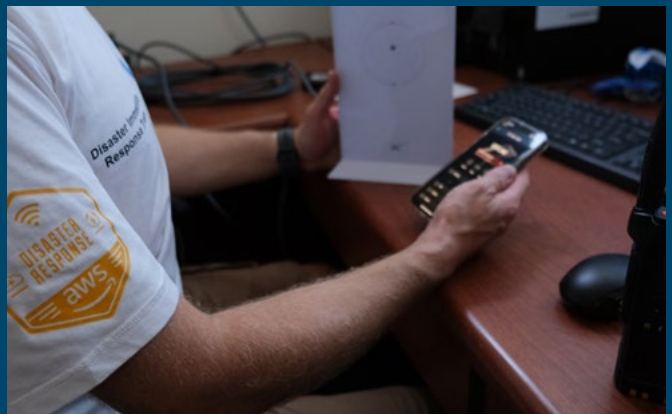
Working closely with AWS, Intelsat and SES, Help.NGO was able to provide high-speed and low-latency connectivity to first responders in the worst-hit area of Fort Myers Beach. This allowed them to access cloud tools and improve their operations, supported by advanced LEO, MEO, and GEO connectivity.

Through these efforts, Help.NGO and AWS DRT were able to play a vital role in enabling effective response and recovery efforts, helping communities in southwest Florida rebuild and recover.

RESPONSE IN HAITI

In the wake of the seiries of crises facing Haiti over the last two years, Help.NGO has been working tirelessly to provide assistance to those in need. Following the magnitude 7.2 earthquake that struck the country in August 2021, Help.NGO leveraged its local presence and a team of Subject Matter Experts (SMEs) to provide secure connectivity resources to both NGOs on the ground and United Nations partners (UNDAC, UNDSS).

The broader humanitarian response to the earthquake in Western Haiti was hindered by the assassination of President Jovenal Moise in July. This led to significant civil unrest and threatened the country's already precarious institutional infrastructure. The already fragile situation was compounded by the ongoing issue of gangs blocking fuel and commodity transportation, leading to significant food insecurity. More than 4 million Haitians are currently facing acute food insecurity, with over 19,000 people reaching phase 5 (famine).

DISASTER RESPONSE

In mid-October, Help.NGO deployed iexpertise and resources in Haiti to provide crucial situational awareness and reliable, secure connectivity for humanitarian partners and UN agencies. This was achieved by leveraging both our ongoing operations in Haiti and the technical expertise of external SMEs. With these resources, we facilitated vital communication capabilities for food distribution, medical support, and community equity, helping to bring stability and assistance to the Haitian people during a time of crisis.

SITUATIONAL AWARENESS

Help.NGO's situational awareness capabilities were critical in navigating the complex and challenging terrain of Haiti during a time of significant civil unrest. Drawing on its local presence and partnership with Amazon Web Services (AWS), Help.NGO leveraged cutting-edge tools such as 4D Scape and TAK, as well as secure communication channels like Wickr chat and ICE Instant Connect, to provide up-to-date intelligence on road blockages and route access.

This valuable information allowed humanitarian vehicle convoys to safely and efficiently reach their intended destinations, ensuring that aid and resources were able to be effectively delivered to those in need.

CONNECTIVITY

With assistance from partners, Help.NGO SMEs worked to provide reliable and secure communication capabilities to the broader humanitarian community. This included the use of Starlink terminals in multiple United Nations agencies' vehicles and fixed sites to access high-speed internet connectivity, even in areas where traditional infrastructure is limited or non-existent.

This partnership between Help.NGO and AWS has allowed for the scaling of important collaboration efforts within the context of a major international humanitarian response, which will be critical in addressing the phase 5 famine declaration in Haiti.

4,700,000

HAITIANS FACE ACUTE FOOD INSECURITY
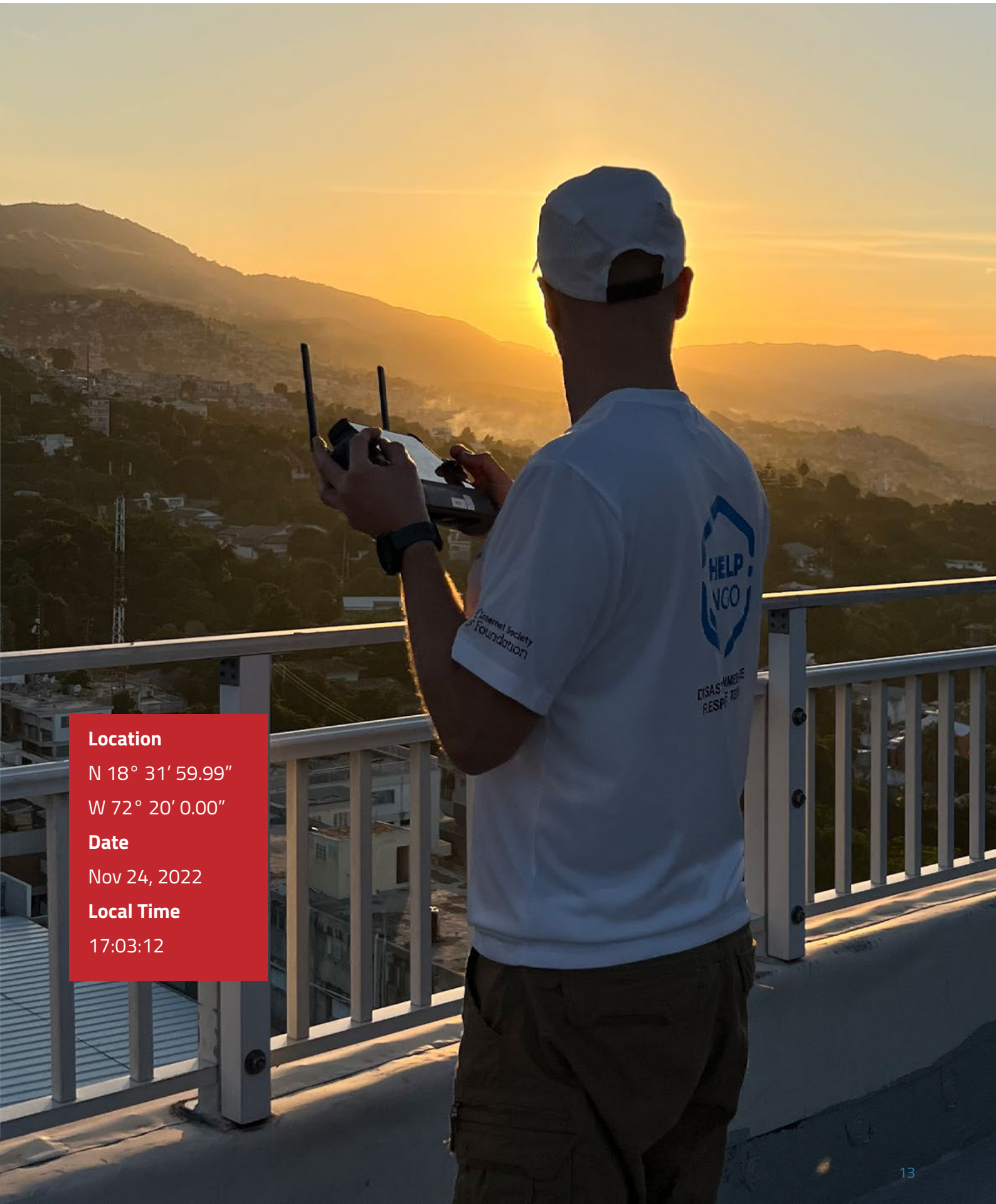
Location

N 18° 31' 59.99"

W 72° 20' 0.00"

Date

Nov 24, 2022

Local Time

17:03:12

RESPONSE IN INDIA

India's healthcare system was severely impacted by the COVID pandemic. It faced critical shortages of hospital beds, medical supplies, and personnel, requiring external support from private entities and NGOs to provide lifesaving medical assistance.

HelpNow, a private 24/7 ambulance network, experienced a significant increase in demand. This prompted Help. NGO to provide support in collaboration with the Internet Society Foundation (ISOC Foundation) and Amazon Web Services (AWS) that began in 2020.

DISASTER RESPONSE

Through the partnership, Help.NGO has helped HelpNow scale its ambulance dispatch service to 750+ ambulances and emergency vehicles. This has enabled the implementation of innovative features such as: live tracking, fleet replay, geofencing, real-time notifications, and driver alerts, improving dispatch efficiency and ensuring a quick and effective ambulance response. HelpNow works with 18 partner hospitals and has responded to over 34,000 calls.

HELPNOW IS A ROUND-THE-CLOCK AMBULANCE NETWORK OFFERING COMPREHENSIVE MEDICAL SERVICES TO PATIENTS, HEALTHCARE PROVIDERS, HOSPITALS, TESTING FACILITIES, AND GOVERNMENT ENTITIES THROUGHOUT INDIA. THE NETWORK IS ACCESSIBLE THROUGH HELPLINES LOCATED IN SEVERAL MAJOR CITIES. HELPNOW IS INDIA'S FASTEST GROWING EMERGENCY MEDICAL SERVICE COMPANY.

CENTRAL & SOUTH AMERICA

In 2021, Help.NGO, Télécoms Sans Frontières (TSF) and United Nations International Organization for Migration (IOM) launched a joint operation to install information screens in temporary shelters for migrants across Central and South America.

DISASTER RESPONSE

Launched in 2021, the Informative Screens Initiative has been instrumental in addressing challenges related to increased migration in the region, especially in the context of the COVID-19 pandemic.

The increase in northwards migration due to widespread violence and extreme weather events has created a complex humanitarian environment.

The initiative aims to empower vulnerable migrants, displaced populations and refugees by increasing their awareness of available assistance and protection resources, as well as providing accurate and timely information on COVID-19 and other issues related to their migration.

Beginning in 2021, screens were installed in 30 shelters in Mexico, Guatemala, and Colombia, to provide a wide range of information. This includes summary information regarding the current migratory situation, existing protection measures and humanitarian services, COVID-19 guidelines and health recommendations, and official updates from authorities.

By serving as a reliable and effective communication channel, the project disseminated key information to migrants, helping them make informed decisions and access the support they need.

As the success of the initiative grew, Help.NGO, TSF, and IOM continued the effort through 2022, expanding the project by installing 15 new screens in migrant shelters and support spaces across South America (Colombia) and Central America (Panama).

These additional screens provided even greater access to vital information, serving to educate and inform migrants about the most up-to-date guidelines and resources available to them, as well as strengthening the rapid dissemination of official information.

For 2023, UNHCR will join as a partner on the project. We expect an additional 10-16 screens to be installed in support spaces in Colombia and Central America, further strengthening the protection and increasing the safety of vulnerable migrants, displaced populations, and refugees in the region.

360,000
YEARLY SCREEN USERS

144,000
YEARLY CHILDREN SCREEN USERS

100%
SATISFIED SHELTERS MANAGERS

FIELD TRAINING EXCERCISE (FTX)

Help.NGO takes a proactive approach to disaster response by regularly conducting training and field exercises. Through a partnership with Amazon Web Services (AWS), FTX events bring together experts in data and connectivity to simulate an environment where critical services such as internet, cellular, and electrical are down.

In these simulations, response teams must rapidly restore connectivity to humanitarian actors and affected communities by deploying ruggedized edge data storage, computing capacity, and quickly setting up secure connectivity and situational awareness tools.

The exercises are designed to mimic real emergency contexts and involve collaboration with local Mobile Network Operators (MNOs) such as Verizon, as well as other public and private sector counterparts.

External participants and observers are encouraged to participate and provide feedback to improve the team's ability to serve humanitarian needs. This hands-on approach allows participants to experience the latest technology first-hand.

The simulation topics covered are diverse and may include a range of critical disaster response technologies, such as IoT LoRA, ADS-B, Motorola DMR solutions, Iridium PTT, and bridged gateway RoIP traffic, as well as data processing and storage tools such as field servers, computer vision, and live object recognition.

By conducting these exercises, Help.NGO and their technology collaborators are better prepared to respond to disasters and provide critical support to those affected.

FTX VIRGINIA

In July 2022, FTX Virginia included discussions and introductions to AWS edge technology, a simulation exercise mirroring challenges faced in the 2015 Nepal Earthquake response, drone/GIS instruction and related lectures by Help.NGO, a 'night ops' simulation of non-checked in/missing persons, as well as 'chalk talks' on a variety of unique technology design solutions meant for utilization in emergency response scenarios.

Topics included:

- CONNECTIVITY: regular BGAN, auto-pointing BGAN, flat panel VSAT, backpack portable VSAT, vehicle mounted VSAT, inflatable VSAT, portable Teleport, traffic shaping, smart routing, Wide Area Networks, IoT LoRA, ADS-B in, Motorola DMR solutions, Iridium PTT, bridged gateway RoIP traffic;
- DATA: field servers, logistics tracking via IoT, mobility vehicle dispatching, field data processing of imagery, computer vision, live object recognition, database syncing over unstable networks, edge computing, edge storage and rectification, ground canvassing, Wickr secure chat, secure telecoms, secure data transfer.

FTX NEVADA

Towards the end of 2022 Help.NGO had the opportunity to facilitate an FTX activity in Las Vegas during AWS re:Invent. Setting up point-to-point networks in the remote Nevada Desert, tested solutions included an advanced common operating picture augmented by IoT, streaming video, and AI/ML (TAK, 4DScape), using high throughput, low latency SATCOM for ISP level connectivity to the cloud, edge processing for UAS data collected in the field with next generation Snowball Edge devices (SSD), and leveraging MANET Radio to connect ground teams and sensors (Doodle Labs).

Help.NGO has drawn on its many lessons learned from over a decade of crisis response to deliver relevant humanitarian training and capacity building for the public and private sector alike, as well as R&D opportunities to organizations working to leverage technology for good.

HOTOSM

Help.NGO is an active member of HOTOSM (Humanitarian OpenStreetMap), contributing to mapathons and mapping projects during disasters to add vital data into OpenStreetMap. This open-source database is an indispensable tool for humanitarians, governments, and other crisis-response actors. Teams leverage satellite and drone imagery to manually tag buildings, roads, and land use, or AI tools like RapID.

In disaster-stricken areas, where map data is often scarce, this approach is crucial for several reasons. By querying the number of houses and comparing it with census data, teams can estimate the population of an area. Response teams can also locate and inventory infrastructure such as schools and hospitals, making these locations available to the broader humanitarian community.

Unlike Google Maps, Bing Maps, and Here Maps, OpenStreetMap is an open database that allows for the sharing of information in map format. Even those using navigation tools in these apps benefit from the work of volunteers on HOTOSM, where we tag roads.

Currently, we are using drone data to identify and tag collapsed buildings, making this information open-sourced. This data is extracted by governments, humanitarians, and NGOs for their own use, such as estimating damage and reconstruction budgets. By comparing before and after photos, we can extract even more data.

Help.NGO's HOTOSM response aims to provide data by organizing mapathons, uploading aerial maps of damaged sites, and sssisting with data storage and coordination.

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 as Global DIRT. 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.

HELP
NGO