

Enhanced disaster preparedness for systemic risk in complex scenarios: challenges and opportunities

13-16 April 2021

Virtual Event

Workshop report



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Acronyms

ACF	Action Against Hunger
AECID	Spanish Agency for International Development Cooperation
CAN	Andean Community
CAPRADE	Andean Committee for Disaster Prevention and Response
CARICOM	Caribbean Community
CDEMA	Caribbean Disaster Emergency Management Agency
CEPRENAC	Coordination Centre for Disaster Prevention in Central America and the Dominican Republic
COPECO	Permanent Contingency Commission of Honduras
COMUPRED	Municipal Commission for Disaster Prevention, Mitigation and Response
DG ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
DP	Disaster Preparedness
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
IFRC	International Federation of Red Cross and Red Crescent Societies
INDECI	National Institute of Civil Defence of Peru
LAC	Latin America and the Caribbean
MERCOSUR	Southern Common Market
NaDMA	National Disaster Management Agency (Grenada)
NEMA	National Emergency Management Agency
PAHO	Pan American Health Organization
PCGIR	Central American Policy on Comprehensive Disaster Risk Management
PROGRESAN	Food and Nutrition Security Resilience Information Systems for Resilience Programme of Sica
RMAGIR	Meeting of Ministers and High Authorities of Integral Disaster Risk Management of Mercosur
SDC	Swiss Development Cooperation
SDG	Sustainable Development Goals
SICA	Central American Integration System
SINAE	National Emergency System (Uruguay)
SINAPRED	National System for Disaster Prevention, Mitigation and Response in Nicaragua
SINAPROC	National Civil Protection System of Panama
SME	Small and medium-sized enterprises
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNGRD	National Unit for Disaster Risk Management (Colombia)
UNICEF	United Nations Children's Emergency Fund
WFP	World Food Programme

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Executive summary

THE WORKSHOP, ENTITLED: "Enhanced disaster preparedness for systemic risk in complex scenarios: challenges and opportunities", constituted an opportunity for partners working on disaster preparedness to showcase the impacts of DP actions in the region, especially in the context of the COVID-19 pandemic and in complex emergencies requiring a better understanding of systemic risk. It helped to showcase how an evidence-based approach is key to drive effective and efficient anticipatory actions, emergency response and early recovery. In addition, learning on how each organization adapted and responded to COVID-19 and how DP projects impacted in the region enriched the workshop. In total, 793 unique users logged into this four-day event and of those, 118 attended all sessions. Key lessons in eight areas were identified:

COVID-19: The pandemic has forced interventions to become more flexible and conditioned to evolving contexts. Adapting ongoing programmes to COVID-19 entails using existing capacities and strategies to facilitate case detection and management, coordination with or referral to health services, and dissemination of hygiene promotion and self-care practices. Furthermore, the systemic impact of the pandemic requires a holistic approach not only through diverse response strategies, but also moving forward towards enhanced disaster preparedness. The COVID-19 pandemic has exposed the weaknesses of sectoral interconnectedness. With assistance largely targeting income generation, the digitalization of business models is an element partners should build into their response strategies. Preventing a similar domino effect of system failures, such as seen due to the spread of COVID-19, overlapping with other hazards, requires reviewing how partners are contributing to existing risk management agendas and frameworks. This includes infusing a more interconnected approach into collaboration, project design, implementation, evaluation and learning. Only with a systemic approach could the effects of hazards, risk drivers and underlying conditions be adequately addressed and Partner response strategies should aim to support more inclusive, green and resilient recovery approaches. Related to the effects of governance on COVID-19 response, disaster risk management policies and plans should be reviewed and stress-tested to ensure their capacity to deal with overlaying hazards and cascading risk impacts.

"Situations have evolved in the past ten years, but some things remain unchanged, and they continue to be essential: this includes disseminating, systematising what we do, sharing among ourselves and working together among all of us. That is what the 'Enhanced disaster preparedness for systemic risk in complex scenarios' workshop is for."

Álvaro De Vicente, Head of Regional Office - DG ECHO

"The region is really notorious for seeking alliances and working across multiple sectors. This call for multi-sectorial focus already has an important anchor in the region."

Raúl Salazar, Head of the UNDRR Americas and the Caribbean Regional Office

Health: Health system facilities, especially hospitals, are critical assets for communities both routinely and especially in response to emergencies, disasters and other crises. However, hospitals and health providers are often among the most affected after an emergency, resulting in a hampered health system, when it is most needed. Delivery of quality and timely health services to the population includes providing a conducive working environment to health staff. Complex contexts, such as those created by conflict and violence, often see health workers and facilities targeted. In these settings, attacks on health providers, hospitals, ambulances and other facilities can be reduced through the implementation of revised safety and operational continuity protocols, and mental health support for staff. PAHO's methodology in this regard, alongside others, such as the ICRC Health Care in Danger (HCID) initiative and the WHO Comprehensive Safe Hospital Framework, provides a useful resource to work alongside local and national authorities in their efforts to protect health care staff and facilities. Documentation and statistics of attacks on health services must be enhanced to make the data more consistent, thorough, accessible and inclusive of diverse perspectives. This requires setting up national notification systems to keep track of violence-related incidents affecting health staff, to train health staff on security and case management, to conduct awareness-raising actions on protection of health services, linked with other sectors and institutions, and to develop a cross-cutting mental health support service. The COVID-19 pandemic has underscored the mental health effects of crises on the wider population too. More efforts must be made to include and plan for the needs of people with disabilities in assistance operations as well as comprehensive digital communication strategies.

Social protection and cash transfers: Adding to prior experiences, the COVID-19 pandemic has once again proven the benefits of cash transfers in disaster response and complex scenarios. In this sense, disaster preparedness strategies continue to seek improving their relevance, effectiveness and efficiency by linking the cash transfers systems to the mechanisms or structures around which they are articulated. These mechanisms range from Emergency Mutual Funds, facilitating systematic savings by families, to the use of countries' social protection systems. However, the closing of markets in compliance with social distancing measures made cash transfers less appropriate. A combined approach of in-kind, vouchers and cash transfer continued to be the preferred approach to respond, as it provided the necessary adaptability to diverse and evolving contexts. The use of social protection systems as part of emergency response is becoming more common, but social demand for these services in the region is still limited. Shock-responsive social protection systems are a powerful resource to make disaster response faster and more appropriate, but they require adequate preparedness and planning for response. Six dimensions are used to assess how social protection systems could play a role in disaster response: needs satisfaction, coverage, speed, predictability, duplication (of systems and efforts) and sustainability. Hence, the use of social protection systems for shock response should be assessed on a case-by-case basis, preferably prior to the disaster. Partners and national authorities must continue working together in aligning technical criteria and approaches and in developing enabling public policies and capacity-building strategies, such as Disaster Risk Financing, which, when combined, make social protection systems more shock-responsive. Not only can future responses be timelier and more inclusive, but they may also offer the opportunity to link emergency response with long-term development initiatives.

Inclusion: Continued efforts must be made by national and sub-national authorities and disaster risk management structures to ensure that inclusion and protection issues are essential components of preparedness and response efforts. These should safeguard that protection, gender, age and inclusion concerns are part of assessments, design, planning, implementation, monitoring and evaluations, reinforced by capacity-building efforts of relevant actors. Facilitating and strengthening the inclusion of indigenous communities and displaced persons in local disaster risk governance structures enhances the understanding of risk and makes risk mitigation and preparedness for response more effective. Existing resources, such as guides and minimum standards on protection and inclusion, are valuable tools for creating a common approach, as well as fostering quality control and accountability. Supporting digitization initiatives pushed forward by various national disaster risk management agencies offers the opportunity to overcome institutionalized gaps. This is particularly relevant for vulnerable groups. Protection-, gender- and age-relevant disaggregated data can, therefore, be made more readily available to decision-makers and incorporated into national disaster response strategies.

Technology and data: The continued embracing of technological developments is an important resource for working in increasingly interconnected risk, hazard and capacity contexts. As a result, more and richer risk data can be collected and analysed into valuable information, improved awareness about ongoing operations can be achieved, decision-making becomes timelier and more effective, and response strategies and services provided to people offer better answers to their needs and priorities. Continuous technological growth offers many opportunities, such as increasing environmental sensor data feeding Early Warning Systems and event modelling. In Central America, CEPREDENAC provides practical and effective tools to partners for the use of geospatial information in disaster response, as well as collaboration and learning spaces. This can be used to triangulate vulnerabilities with multiple hazards. These collaboration spaces contribute to inform policy and coordination through access to disaster management plans. They also provide more efficient data sharing and management systems, with the use of open-sourced software. The information ecosystem created by such a platform facilitates the nexus approach, by making information available for both immediate disaster response as well as for the pursue of long-term goals. Technologies for remote sensing and remote images around an impacted area and their subsequent analysis can help overcome physical access constraints. Synergies among partners and countries require de-localized data, which in turn call for consensus on data parameters and criteria. Only then will information be comparable across various contexts, informing decision-making on targeting and resource utilization. Joint assessments, tools and data collection are important at an organizational level for multi-mandated organizations bringing together different teams, at a response level. Nonetheless, whilst technology can provide many advantages, its drawbacks must always be thoroughly considered. Sustainability, maintenance costs, data protection and capacity for interoperability with other systems are some of the criteria to consider. Where appropriate, low-tech solutions or complementing actions should be implemented as well, as they provide redundant and sustainable alternatives.

Coordination: The response to the explosive eruption of La Soufrière volcano on the Caribbean island of Saint Vincent, shortly before the workshop, provided evidence of the advancement in

regional coordination achieved by CDEMA and OCHA. The importance of information management systems to collect, analyse and disseminate large amounts of data among numerous actors involved in a response has been evident. The interoperability among the two institutions contributed to a more structured response in a complex scenario where multiple factors like the geographical characteristics of a small island State, the COVID-19 pandemic, a Dengue fever outbreak and a volcanic eruption came together. The positive impact of cross-institutional coordination can also be appreciated along the Caribbean Humanitarian Corridor, where diverse institutional expertise resulted in increased logistical capacities achieving a people-centred approach. Installing resources ahead of time, such as training staff, prepositioning stocks and working with national governments on International Disaster Response Law will speed up the movement of staff and the provision of assistance. Also, joint scenario modelling can facilitate anticipatory action for complex scenarios. The response to La Soufrière volcano has shown as well the added value of the private sector participating in response efforts. However, Chambers of Commerce must be invited more consistently to preparedness and coordination fora. From there, the private sector can buy-in as an active player into contingency plans and other preparedness and response mechanisms. Inclusion into coordination structures must also be extended to local civil society organizations, who usually do not appear in data management streams or “who-does-what-where” mappings, yet carry out important community level interventions.

Volunteering and first responders: Community participation increases not only population's ability for self-protection, but also the effectiveness and relevance of preparedness and response actions by authorities and partners. Furthermore, it contributes to a more efficient use of resources, reinforces dignity among the affected population and promotes inclusion and accountability. For example, community participation in the design process of Early Warning Systems improves the timeliness of early action, as warning signs can be identified at a much earlier stage. For this to work effectively, community input needs to be factored in at both national and sub-national levels for all four components of a people-centred Early Warning System: risk knowledge; monitoring and warning; warning dissemination and communication; and response capability. In the case of people on the move and indigenous people, it enables highly vulnerable groups to react to hazards in contexts of limited social support networks or State services. Similarly, preparedness actions carried out with municipal-level disaster prevention, mitigation and response committees allowed for meaningful linkages to be established with a large network of volunteers during the response to Hurricanes Eta and Iota in Nicaragua, Honduras and Guatemala. This underscores the need to invest in volunteerism and volunteers, promote a sense of belonging which then leads to increased participation, promote safe working environments, develop programmes which are beneficial both to them and to local response structures, and provide the necessary recognition of their efforts.

Private sector: The private sector has a deep reach into the shaping of society, therefore being a priority for actors engaged in disaster risk management, as underscored by the Sendai Framework for Disaster Risk Reduction 2015-2030. The widely interconnected nature of the private sector requires targeting businesses' supply chains, partners and clients. Working with Chambers of Commerce enables partners to increase contingency planning and business continuity awareness among the private sector. This would enable a common understanding of “business resilience” and other disaster risk reduction concepts that applies to SMEs. Developing sector-specific

or territorial-oriented business continuity tools and installing capacity for their continuous improvement by existing business networks can add value to partners' interventions. Digitalization of business models has become and increasing resource to build resilience among SMEs. This must be supported by incentives, such as microcredits, to allow businesses to transform and grow. Opportunities should exist in both development as well as recovery finance mechanisms. The steep learning curve by SMEs on disaster risk management creates opportunities for peer-to-peer learning, thus, continuously capturing good practices and promoting the exchange of lessons learned is a valuable resource to support. A common and consensual approach to risk reduction focusing on the private sector has proven useful to agree on targets, implementation, and monitoring and evaluation.

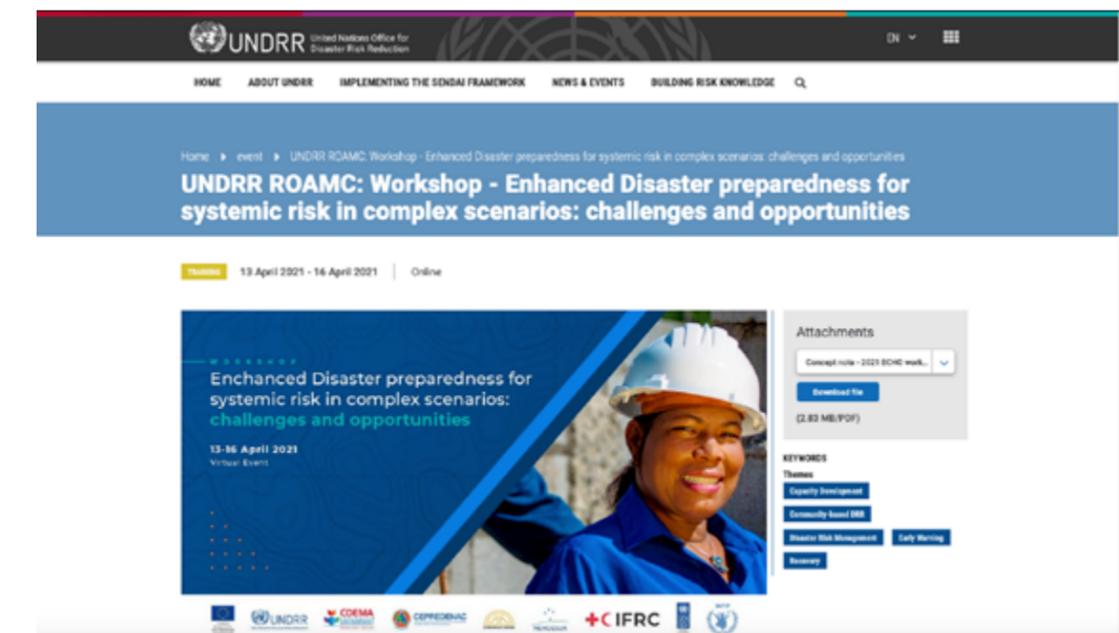
Partners also had the chance to receive insight into the new DG ECHO Disaster Preparedness Guidance Note, which seeks to mainstream preparedness and a risk-informed approach in all operations. To complement its mainstreaming efforts, DG ECHO also supports targeted preparedness actions as a specific way of strengthening preparedness for the early response to hazards and/or threats. In a systemic fashion, the work on community strengthening is complemented by a focus on the capacity reinforcement of local, national and regional institutions. In Latin America and the Caribbean, focus is given to vulnerable groups such as indigenous people, forcibly displaced people and vulnerable migrants. Similarly, the effects of climate change and environmental degradation are increasingly integrated into all interventions in recognition of their role as risk multipliers. Protection and respect for humanitarian principles are integral in all DG ECHO funded interventions.

The workshop concluded with a high-level session on the priorities of intergovernmental and regional organizations. Representatives underscored the need for closer cooperation among national and regional authorities, pointing the positive results stemming from recent experiences. This was seen as essential to successfully implement a systemic risk approach. In this regard, a more comprehensive inter-sectoral approach was seen as key. The use of technology to support the collection and analysis of data, doing so with an increased coverage, less time and more accuracy, is seen as an important resource for decision-makers. Finally, representatives emphasized strengthening the inclusion of risk management in public investments and develop Disaster Risk Financing mechanisms to support early recovery and sustainable development.

The virtual workshop provided a valuable opportunity to exchange experiences and lessons learned among partners, in a context tinted by COVID-19 social distancing. Furthermore, the event was instrumental to collect key messages, recommendations and conclusions for the VII Regional Platform for Disaster Risk Reduction 2021.

<https://www.undrr.org/event/undrr-roamc-workshop-enhanced-disaster-preparedness-systemic-risk-complex-scenarios>

Visit the website to access the session recordings, session summaries and other resources.



Workshop overview

The Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) has been providing assistance to the Latin American and Caribbean (LAC) region since 1994 in fulfilment of its humanitarian mandate to save and preserve lives, reduce disaster risk conditions and contribute to building the resilience of people, communities and countries in the region.

During this time, DG ECHO has invested more than 224 million euros in 34 countries in Latin American and the Caribbean. Active in more than 520 projects, it has reached 13 million with the participation and involvement of a great diversity of organizations and partners. The disaster preparedness projects supported by DG ECHO are aligned with the goals defined by the countries of the region (either national or regional) and reinforce the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

To define funding priorities in disaster preparedness throughout the region, DG ECHO has been conducting consultations with key actors for two decades, both at the country and sub-regional levels. Workshops held every two years produced recommendations and strategies that have helped to facilitate and complement sub-regional events.

In 2018, the DG ECHO DP LAC workshop organized by the United Nations Office for Disaster Risk Reduction (UNDRR) brought together for the first time actors from the three sub-regions – Central America, South America and the Caribbean – to exchange views, experiences, knowledge and

ideas on how preparation can make a difference in disaster response and early recovery. This is a strategically important point, especially because limited resources require the optimization of asset allocation for disaster preparation. Of equal importance is showing how these actions are integrated into disaster risk management strategies and how disaster preparation is aligned with national and regional disaster risk reduction actions.

In 2020, the Coronavirus (COVID-19) pandemic became the worst human and economic crisis of the present century, claiming over 2 million lives, and disproportionately affected several regions, including in Latin American and the Caribbean. It is also causing serious disruption to progress made in achieving the Sustainable Development Goals (SDGs), while exacerbating the vulnerabilities of people who had been impacted by the increased number and intensity of extreme hydrometeorological events, such as hurricanes Eta and Iota in Central America, cyclones in the Caribbean and by the continuous protracted emergency situations due to conflict, violence and political instability causing internal displacement and forced migration across the LAC region. This context inevitability led to the postponement of the workshop.

The VII Regional Platform for Disaster Risk Reduction in the Americas and the Caribbean (RP21) will take place virtually from 1 to 4 of November 2021. The Platform will discuss how governments, ministers, civil society leaders, technical and scientific institutions, the private sector and the media could promote the application of the Sendai Framework for DRR in the Americas. Regional and Global Platforms play a pivotal role in advancing the implementation of the Sendai Framework, offering privileged spaces for debate and learning, and strengthening the collaboration between all the groups and sectors involved. The Sendai Framework also underscores the need for the Global Platform and the Regional Platforms to function as a coherent system of mechanisms in order to fully leverage on the potential for collaboration across all stakeholders and sectors to provide guidance and support in its implementation. The workshop provided an opportunity for actors in Latin America and the Caribbean involved in disaster risk management to participate in discussions in the time leading up to the RP21, with the aim of identifying lessons learned and areas of interest to feed into the various discussions to be held during the VII Regional Platform for Disaster Risk Reduction in the Americas and the Caribbean.

Within this frame of reference, the workshop was held virtually from April 13 to 16, 2021. It constituted an opportunity for partners working in disaster preparedness to showcase the impacts of DP actions in the region, especially in the context of the COVID-19 pandemic and in complex emergencies requiring a better understanding of systemic risk.

In preparation to the workshop, an assessment of disaster preparedness projects was carried out to identify evidence of their impact at regional, national and local levels. Key criteria in this process were the adaptability, replicability and scalability of the different practices, tools and/or strategies in the face of emerging new hazards and complex scenarios and the extent to which the developed actions contribute to disaster preparedness with a systemic perspective. As a result of this research, 32 pieces of evidence were selected for the regional workshop and 25 were systematized and disseminated on the UNDRR website "[Evidence that Makes a Difference](#)".

Objectives and outline

Based on the findings of preparatory consultations carried out among DG ECHO DP partners, the results of the two DG ECHO DP partners events conducted in 2020 and the meetings of the Coordination Group, the main objectives of the workshop were:

1. To showcase how disaster preparedness actions contribute to emergency response, early recovery and anticipatory action through an evidence-based approach.
2. To discuss lessons learned and share experiences from implemented DP projects of partners in the context of the COVID-19 crisis and in complex emergencies.
3. To assess the impact of DP projects in the region and how DP facilitates emergency response through developed methodologies and tools.
4. To analyse DP actions alignment with key regional policies and strategies in the region and how DP evidence could influence the development of public policies.

Evidence presented during the workshop ranged from a positive change in practice and the use of new institutionalised tools to successful early actions that help reduce risk and avoid emergencies, as well as, when such events do occur, contribute to a more effective response or recovery process. The workshop also provided the opportunity to reflect on challenges and discuss how to strengthen DP actions to enhance institutional and multisectoral response mechanisms to respond to complex emergencies.

Through the exchange of experiences, the workshop itself was instrumental to collect key messages, recommendations and conclusions for the VII Regional Platform for Disaster Risk Reduction 2021. Consequently, discussions contributed to the continuing effort to recognize the role of DP actions in achieving Target E of the Sendai Framework, which focuses on "*substantially increasing the number of countries with national and local disaster risk reduction strategies by 2020*".

Expected results

1. Assessed impact of DP actions in the region and identification of how these facilitate early action, emergency response and recovery, and provision of inputs and recommendations.
2. Evidence-based approach promoted that illustrates how DP makes a difference through the presentation of concrete actions and lessons learned, especially in the context of the COVID-19 crisis and in complex emergencies in the region.

3. Exchange enabled for local, national, regional and international cooperation organizations and their associated partners to share experiences on how DP actions are aligned to national and regional plans and how these are sustainable to respond to future emergencies.
4. Recommendations, messages and inputs on how DP interventions contribute to faster and more efficient responses to disasters and how these can influence public policies in the region.

Methodology

The event planning was overseen by the Organizing Team, an association of representatives from CAPRADE/CAN, CDEMA/CARICOM, CEPREDENAC/SICA, DG ECHO, the European Commission Delegation in Jamaica, IFRC, UNDP, RMAGIR/MERCOSUR, WFP and UNDRR. The Organizing Team's decision to hold the event online gave way to new challenges, such as restricted time allocation and audience interaction. Nonetheless, new opportunities were seized as well, with more in-depth research of partners' actions being used to create a selection of DP focused experiences and discussions.

Design and planning

The process began with the assessment of the disaster preparedness projects currently being implemented in the region. This step informed the identification of evidence of the impact generated by the various practices, tools and/or strategies in the face of emerging new hazards and complex scenarios with a systemic perspective. The workshop was intended to strengthen the dissemination of identified good practices among partners, as well as arising challenges and opportunities.

To this end, 68 projects financed by DG ECHO, Canada, SDC and USAID BHA, among others, went through a revision process that applied a series of exclusion criteria (measurability, participation, geared towards reducing existing and future risks and alignment with the Sendai Framework for Disaster Risk Reduction 2015-2030) and prioritization criteria (sustainability, replicability, scalability with a focus on rights and gender). Out of the first round of analysis, 46 experiences were prioritized for further research through 18 interviews conducted with lead partners. The interviews also aimed at collecting material to feed the DIPECHO LAC website. Gender and rights approach recommendations on the sustainability, participation, planning and strengthening of these projects were identified. They were later shared during the online regional disaster preparedness workshop and on the "Evidence that Makes a Difference" website.

As a result of this research, 32 pieces of evidence were selected for the regional workshop and 25 were systematized and disseminated on the web. Finally, 18 posts and 5 videos based on the 46 projects were made for future dissemination on the DIPECHOLAC Facebook channel, thus further promoting good practices at regional level and coordination between partners to strengthen resilience in the region through effective DP.

Implementation

In contrast to previous workshops, where sharing partner experiences had the benefit of whole-day events, the 2-hour session format selected for the online workshop required a different approach. With evidence being analysed as per inclusion/exclusion criteria described in the "design and planning section", recurring themes were identified. Consequently, a cross-relation was made between the event's objectives and these themes. This relation enabled the Organizing Team to shift towards topic-focused discussions, instead of maintaining partner-oriented presentations. As a result, the workshop design revolved around the following structure:

- a) Last mile disaster preparedness
 - a. Volunteering & first response
 - b. Working with the private sector
 - c. Promoting inclusion
- b) Ripple effect – replicating successes
 - a. Social protection and cash transfers
 - b. Technology & data
 - c. Coordination & logistics
- c) The harvest – what have we learned?
 - a. COVID-19 response
 - b. Health
- d) High Level Dialogue – regional and national priorities for effective disaster preparedness
 - a. Sub-regional experiences, perspectives and priorities for disaster preparedness
 - b. Inter-country roundtable on sectoral perspectives on disaster preparedness

In addition, the segments “Turbo Talk: Disaster preparedness saves lives” were built in to share relevant evidence on very specific subjects. Time was allocated for DG ECHO to share video messages and to present the “DG ECHO Disaster Preparedness & Risk-Informed Approach”. Finally, segments for extended Q&A were added at the end of each session, complementing information shared during the day.

To ensure focus on each of these themes, selected partners were given guiding questions, specifically developed for their piece of evidence and consistent with the segment they were allocated. These were shared in personalized invitations, followed up by support to prepare the necessary presentations.

Attention was given to audience interaction, as well as content delivery variety. To enable audience interaction an assortment of online tools was used. Zoom was chosen as the main communication platform, due to its widespread use, usability, possibility to enable/disable participants functionalities allowing to run a 200+ person meeting (as opposed to a webinar) and interpretation functions. Some sessions were also streamed on the DIPECHOLAC Facebook page (all session recordings were uploaded to the [UNDRR YouTube channel](#)). Padlet, an online collaboration platform, was important to facilitate asynchronous communication, allowing participants to introduce themselves ahead of the sessions or share their interest in meeting other attendees during the event itself. Slido enabled exchanges with the audience during the sessions, running moderated Q&A segments, word clouds and multiple-choice questions. Interpretation was offered for English, French and Spanish, as well as for sign language, the latter provided by H&I, RIADIS and FENASCOL Colombia.

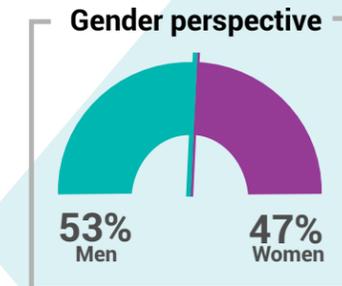
The diversity of content delivery methodologies was important too. For this purpose, three options were made available to participants, discouraging PowerPoint-like presentations.

- **PechaKucha-style presentations:** a format in which a presentation is shown in a simple and clean way using 20 slides – preferably with pictures only – shown for 20 seconds each. This results in an about 7-minute-long presentation. Turbo Talk segments were allocated only 15 slides for 20 seconds each.
- **Video:** with a 7-minute time limit, partners were given absolute creative freedom to either share exiting content or develop a new video on their piece of evidence.
- **Storytelling:** partners were provided with reference material to build a 7-minute story, offering an immersive experience into their piece of evidence.

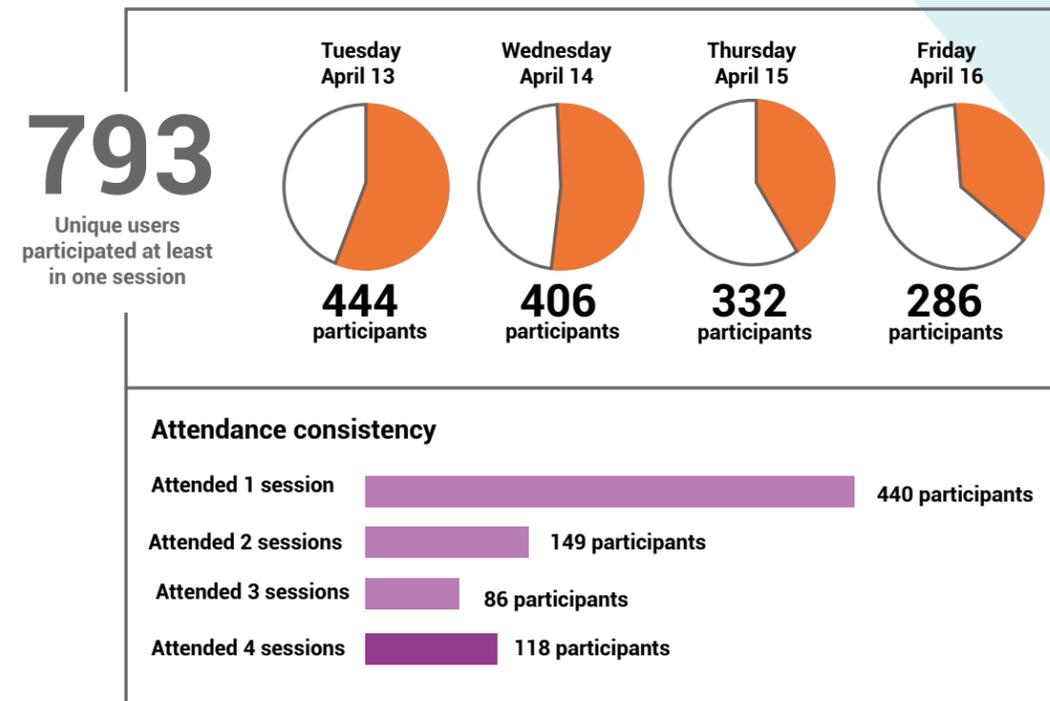
Each partner chose the preferred content delivery method, with all three being used throughout the event. However, the format of the fourth and last session was different, with traditional presentations and a round table, adapted to the requirements of the high-level dialogue held that day.

Participants

The workshop was attended by a range of local partners, national authorities, donors, intergovernmental and international organizations, and NGOs. A complete list can be found in “Annex I – Participants”.



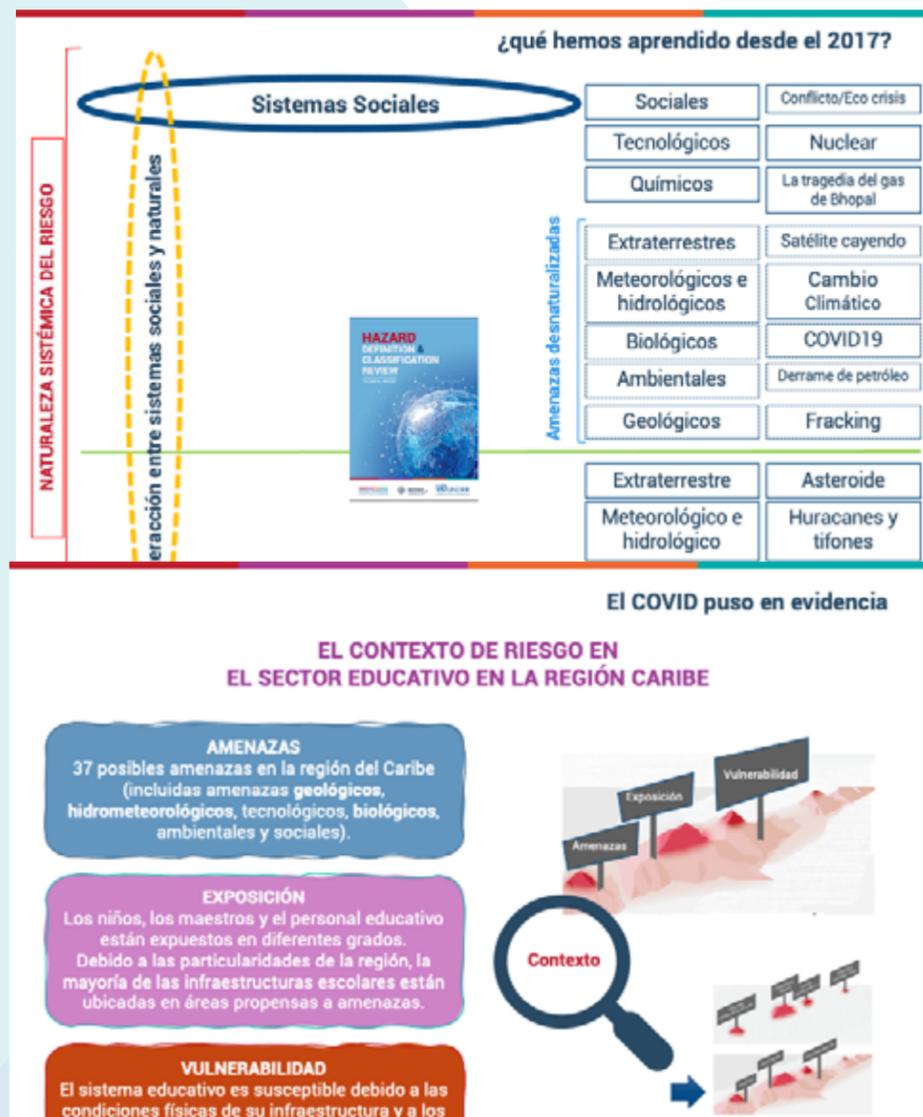
A total of 793 unique users signed into at least one session over the course of the four days, with 118 participants attending all four sessions. Based on the overall attendance figure, 53% of the participants were male and 47% were female. However, 72 attendees did not indicate gender, with most of those being institutional account connecting to the Zoom sessions.



Main discussions

The following sections provide summaries of the discussions held around the identified themes that were addressed during the workshop. Each section provides a link to a relevant segment within the session recordings on YouTube.

COVID-19 response



The response to the COVID-19 pandemic has been two-fold. While one line of work geared towards addressing the pandemic itself and its social, economic and environmental consequences, the other focused on how to maintain business continuity of ongoing operations, in a context where social distancing severely disrupted activities and planned targets. Efforts by partners have aimed at adapting operations to uphold various disaster preparedness efforts, such as for the 2021 hurricane season, while at the same time tackling the effects of COVID-19.

The Caribbean Safe Schools Initiative (CSSI), launched in 2017 and endorsed by 18 Caribbean countries, integrates a systemic view of risk. It seeks to implement the Comprehensive School Safety framework and works to create synergies with other sectors, such as disaster management, finance, health, telecommunications and others. The systemic nature of risk is reflected in the contagion and domino effects caused by the COVID-19 pandemic, generating failures not only in specific systems but in all the systems we are involved in. Limited budget allocated to safety actions, slow economic growth, gender inequality, inequity of access to and inadequate use of health services account for the main risk drivers that led to systemic failures in the education sector in the Caribbean. This is evidenced by the 158 out of 190 lost school days due to school closure. In turn, malnutrition, gender-based and family violence, as well as dropouts exacerbate vulnerability and inequality.

In Haiti, inappropriate infrastructure and equipment to treat COVID-19 cases, discrimination and stigmatization of people infected with COVID-19, a porous border with the Dominican Republic, and deportation and repatriation of Haitian nationals living in other countries, created an especially difficult situation. In response, the IOM scaled up a border programme and implemented a protocol for screening, registering, testing and transporting patients to places set up for quarantines. The resort to mobility tracing maps using cell phone data made it possible to monitor population movements and to predict the areas where COVID-19 infections would surge. Training of trainer programmes were also implemented to allow staff in remote regions to be trained and avoid travel of large numbers of people.

In Paraguay, the “Building Resilient Educational Communities in Ecuador and Paraguay” project led by UNICEF incorporated a COVID-19 response, as part of a wider resilience building programme for vulnerable communities. The strategy places community leaders, neighbourhood committee chairpersons and other people of influence at its centre. It seeks to develop information, training and support for community initiatives, such as the implementation of prevention and mitigation measures, by promoting collaborative work of community leaders, including women and adolescents. Trainings build the capacity of community volunteers to gather information on the evolving COVID-19 situation in their neighbourhoods, disseminate information about self-protection and take assertive action upon detection of a possible case of COVID-19 and or in the event of widespread community infection.

In Colombia, in turn, following the collapse of the tourism industry, FAO supported Colombia's largest indigenous community with the development of the “Wayuumarket”, an online shop to sell Wayuu handicrafts. This adaptation strategy to the pandemic enabled the continuation of a food security and nutrition initiative already targeting the Wayuu community, following the prolonged droughts and water shortages affecting them.



COVID-19: Recommendations

The pandemic has forced interventions to become more flexible and conditioned to evolving contexts and crisis timings. Adapting ongoing programmes to COVID-19 entails using existing capacities and strategies to strengthen social protection mechanisms and promote prevention measures. In addition, enhanced capacities are required to protect exposed front-line workers, facilitate case detection and management, coordination with or referral to health services, and dissemination of hygiene promotion and self-care practices. Furthermore, the systemic impact of the pandemic requires a holistic approach not only through diverse response strategies, but also moving forward towards enhanced disaster preparedness. The COVID-19 pandemic has exposed the weaknesses of sectoral interconnectedness. With assistance largely targeting income generation, the digitalization of business models, also addressed under the “private sector” theme, is an element partners should build into programme response strategies. Preventing a similar domino effect of system failures, such as seen due to the spread of COVID-19 overlapping with other hazards, requires reviewing how partners are contributing to existing risk management agendas and frameworks. This includes infusing a more interconnected approach into collaboration, project design, implementation, evaluation and learning. Only with a systemic approach could the effects of COVID-19, climate change, migration, food security, inequality and health security be adequately addressed. Partner response strategies should aim to support more inclusive, green and resilient recovery approaches, together with financing disaster risk management and a risk-informed COVID-19 recovery plan. Related to the effects of governance on COVID-19 response, disaster risk management policies and plans should be reviewed and stress-tested ensure their capacity to deal with overlaying hazards and cascading risk impacts.

Health



Health personnel working in violent contexts are no strangers to suffering aggression and attacks. PAHO's "Protection of health personnel in situations of violence in Central America" programme seeks to address this situation by strengthening the security and capacity of health facilities and personnel situated along the migratory routes in Central America, in line with its "Safe Hospitals" approach. The cornerstone of this strategy consists of five areas of work: assessing, improving, equipping, standardizing and establishing coordination mechanisms at the country and regional levels.

¿Cómo lo estamos haciendo?

1. Evaluando la seguridad y preparación de las Instalaciones de Salud frente al fenómeno de violencia
2. Mejoras en la Seguridad de la instalación
3. Dotación de equipo para atención de emergencias a hospitales y unidades de salud
4. Normativas, protocolos, estrategias nacionales de Protección a los servicios de salud frente a la violencia.
5. Conformación de Mecanismos Nacionales de coordinación (mesas Nacionales de salud y violencia).

Some 18 hospitals, 21 health units and four migrants care centres throughout the northern triangle of Central America have been assessed, using a context-adapted diagnostic tool developed by the International Committee of the Red Cross (ICRC). Equipment for violence-related emergencies in health units has been improved and operational procedures and protocols have been revised to address security issues and injury management, as well as staff access security. An additional component is self-care and psychosocial and emotional support for victims of violence, with an emphasis on health personnel. These efforts are reinforced by a self-learning course available on PAHO's web platform and further institutionalized through the creation of National Roundtables on Health and Violence.

Changes in the perception of violence from health personnel and authorities have been achieved, while their work is carried out in safer contexts with improved self-care mechanisms. More visibility has been given to the issues of violence in the health sector. Challenges ahead relate to further institutionalizing these tools, allowing them to be applied to a wider network of health facilities.

Moreover, the impact of crises on mental health has been very evident following the onset of the COVID-19 pandemic. In response, Humanity & Inclusion in Colombia developed the “Con Sentidos” communication campaign, addressing the emotional and mental health needs of people with disabilities, caregivers, and their families. More so, in a context where communication efforts are paramount, their reliance on digital channels to comply with social distancing led to people with disabilities often being left out. The aim was for digital content to be tailored to the needs of people with diverse abilities, thus being fully inclusive. Additionally, the campaign intended to boost participation of and assistance to people with disabilities, as assessments showed that support packages, such as food parcels, were not sensitive to the access needs of this vulnerable group.

Una realidad cruda

- Condición de inseguridad social y demanda de atención de casos por “lesiones de causa externa”.
- Inseguridad para el personal de salud por ataque de grupos armados Organizados “GAO” y disturbios sociales
- Ataque a personal de salud en actividades extra muro (vacunas, fumigación, APH)

“Con Sentidos” introduced subtitles, language and sign language interpreters into communication campaigns, and conducted online trainings on early detection of risk factors for people with disabilities and people in charge of children and adolescents. This improved access to assistance and reduced mental health issues caused by exclusion from overall COVID-19 response efforts.

Health: recommendations

Delivery of quality and timely health services to the population includes providing a conducive working environment to health staff. Complex contexts, such as those created by conflict and violence, often see health workers and facilities targeted. In these settings, attacks on health staff, hospitals and others can be reduced through the implementation of revised safety and operational continuity protocols, and mental health support for staff. PAHO’s methodology in this regard provides a useful resource to work alongside local and national authorities in their efforts to make health facilities safer. To deepen the discussion on the scope of attacks, documentation and statistics of attacks on health must be enhanced to make the data more consistent, thorough, accessible and inclusive of diverse perspectives. This requires to set-up national notification systems to keep track of violence-related incidents affecting health staff, to train health staff on security and case management, to conduct awareness-raising actions on the protection of health services, linked with other sectors and institutions, and to develop a cross-cutting mental health support service. The COVID-19 pandemic has underscored the mental health effects of crises on the wider population too. Today’s reliance on large-scale assistance and digital communication requires, more than ever before, for efforts to be made to ensure inclusion of people with disabilities. This comprises making digital communication inclusive and warranting access to support packages for people diverse needs.

Social protection and cash transfer

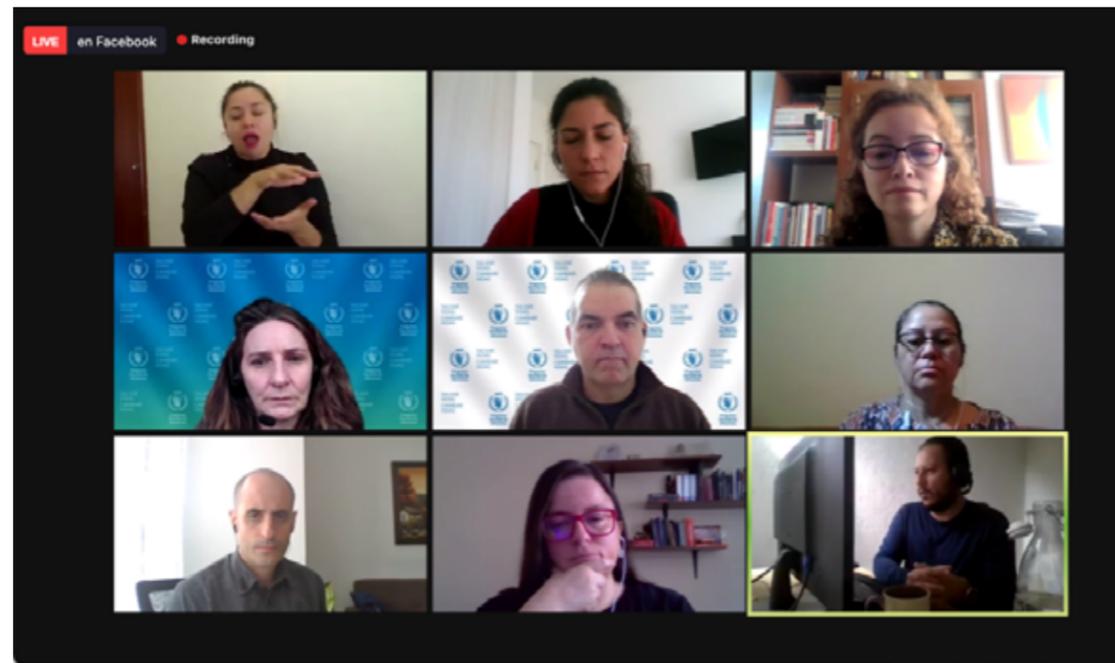


Cash transfers are known for their effectiveness, as well as for the many complexities their use involves. The LAC region offers a wide range of different experiences and learning opportunities, such as the rising use of national social protection systems as a key component of cash transfer strategies, as has been the case in the Central American Dry Corridor or in Ecuador. Nonetheless, as not all contexts offer the same opportunities, a range of implementation strategies must be considered. Commonly, cash transfers were combined with in-kind vouchers or donations and these services were often delegated to specific local partners who would focus only on one of them.

To better understand how cash transfers were used and inform future intervention strategies, a pilot project was set up by an AFC-led consortium in Central America, utilizing e-cards to track implementation. However, this process had to adapt to the COVID-19 pandemic, since much of the baseline data collection and community information sessions were being held remotely. Similarly,

¹ Additional WFP resources on Shock Responsive Social Protection Systems can be found on the websites “Shock-responsive social protection in Latin America and the Caribbean” and “[Research Programme on Shock-Responsive Social Protection in the Caribbean](#)”

the WFP in Ecuador, engaged in building inclusive and more shock-responsive social protection systems to deliver support during emergencies, had to shift its implementation strategy due to social distancing restrictions affecting access to cash payment points. In response, digital vouchers were distributed, exchangeable in the stores of a nation-wide supermarket chain. Furthermore, beneficiary data owned by the national social protection system were used to accurately target families during this shift, highlighting another benefit of working with these structures. This information was cross-referenced with locations showing the highest COVID-19 incidence rates to further refine targeting. This mechanism was enshrined in a "nutritional support" scheme, setting a precedent for such assistance being delivered through the social protection system.



Furthermore, the pandemic caused fluctuations in market prices and availability of commodities such as corn and beans. Absence of public transport services added to the challenges experienced by people to access payment points and stores. Due to these restrictions, OXFAM in Guatemala decided to partially switch to in-kind donations and target vulnerable children under the age of 5, as monitoring information showed that some families were not prioritizing the needs of this age group in their purchases. In the same vein, the WFP resorts to a Food Security and Nutrition index to measure the impact of cash transfers. In Ecuador, the index showed a significant reduction in food insecurity following the roll out of cash transfers and the "nutritional support" scheme during the COVID-19 response.

Another approach to ensure cash availability is being implemented by FAO in Colombia through the use of Emergency Mutual Funds. Families are supported by livelihood and disaster risk reduction initiatives that facilitate regular cash savings. These savings can be used to cope during crises or to finance undertakings. Emergency Mutual Funds are accompanied by capacity strengthening programmes that focus on disaster risk management, financial education, new endeavours, and business models. This framework is being applied in areas exposed to natural hazards and armed conflicts. It also has been shared with the Ministry of Agriculture and Rural Development, active in increasing the financial literacy of small-scale producers. This collaboration is conducive to better public policy-making. Indeed, the implementation of cash transfers through public services, outside an institutional ecosystem between partners, often entails changes to national legislation, which in turn requires the involvement of a wide range of actors.

Overall coordination of multi-country consortiums, such as the ones seen in Central America, requires special attention. Aligning methodologies, criteria and tools for baseline data collection, targeting, communication and implementation is seen as key to ensuring acceptance by and collaboration between communities and authorities. The success of this alignment depends on contextualization efforts and relies on the need to build consensus among country-specific technical working groups, bringing together national and international actors. Reaching consensus on the technical criteria to be applied to cash transfers accounts for one of the main coordination challenges.

Coordination also requires reaching out to other sectors and institutions, such as the ones supporting people with disabilities, as well as gender- and age-specific groups. This allows linkages to be created with existing resources and guidance on country-specific technical issues related to these groups. For instance, in Guatemala, the ACF relied on the National Council for the Assistance of Persons with Disabilities (CONADI, by its acronym in Spanish), to assist in supporting inclusion and participation. Furthermore, strong community engagement strategies offering complaint management and accountability mechanisms stimulate gender inclusion, protection and empowerment. Consequently, monitoring efforts, such as the one carried out by the WFP in Ecuador, showed that most of the cash transfers were reaching women and targeted households with members suffering from illnesses entailing high treatment costs, disabilities, elderly members, or with at least one pregnant woman.

The implementation of cash transfers through social protection systems also entails specific sustainability considerations. In Central America a demand assessment for this kind of service is needed to scale up its coverage. This is partially based on the appraisal that the most vulnerable families are not necessarily those living in the Dry Corridor, but those headed by elderly members in charge of the children, large-numbered families, or families unlikely to experience a significant upward changes in income. According to OXFAM, states would have to invest about 2% of their Gross domestic product (GDP) in social protection to meet the needs of its potential target population.

However, with some countries' fiscal budget accounting for only 10% of their GDP, important fiscal reforms are required and Disaster Risk Financing should be improved. As the offer of public support programmes for target groups is currently limited, partners can only offer substitution solutions. As a result, exit strategies tend to be challenging. For example, some families experience the reappearance of access barriers once a specific partner's cash transfer-based action, not linked to a wider support system, has come to an end. In view of ensuring the relevance, speed, coverage and sustainability of assistance, it is important to always consider flexible responses, reliance on cash transfer mechanisms implemented by partners, strengthening and use of social protection systems, and the provision of in-kind and/or voucher support during design phases.

Supporting shock-responsive social protection systems through policy development, information management and training will over time create the opportunity to offer long-term assistance to vulnerable people, linking emergency response with development. The need for this has been made particularly evident by the COVID-19 pandemic, during which existing State support services have been strained.

Social protection and cash transfer: recommendations

Adding to prior experiences, the COVID-19 pandemic has once again proven the benefits of cash transfers in disaster response and complex scenarios. In this sense, disaster preparedness strategies continue to seek improving their relevance, effectiveness and efficiency by linking cash transfer systems to the mechanisms or structures around which they are articulated. These mechanisms range from Emergency Mutual Funds, facilitating systematic savings by families, to the use of countries' social protection systems. However, the closing of markets in compliance with social distancing measures made cash transfers less appropriate. A combined approach of in-kind, vouchers and cash transfer continued to be the preferred approach to respond, as it provided the necessary adaptability to diverse and evolving contexts. The use of social protection systems as part of emergency response is becoming more common, but social demand for these services in the region is still limited. Shock-responsive social protection systems are a powerful resource to make disaster response faster and more appropriate, but they require adequate preparedness and planning for response. Six dimensions are used to assess how social protection systems could play a role in disaster response: needs satisfaction, coverage, speed, predictability, duplication (of systems and efforts) and sustainability. Hence, the use of social protection systems for shock response should be assessed on a case-by-case basis and preferably before the disaster. One of the main areas in which partners and national authorities must continue working together is in aligning technical criteria and approaches, developing enabling public policies and building capacities, which, when combined, make social protection systems more shock-responsive. Not only can future responses be timelier and more inclusive, but they may also offer the opportunity to link emergency response with long-term development initiatives.

Inclusion of people with specific vulnerabilities



Learning from indigenous communities represents a longstanding effort for actors involved in disaster risk reduction. Nonetheless, bridging traditional knowledge with science-based approaches to hazards is an ongoing work, as proven by the Lutheran World Federation in Colombia. There, communities living in the Nasa Embera Chami indigenous reservation were strengthened in their approach to and participation in disaster risk reduction. While indigenous knowledge allowed them to identify potential hazards by observing signs in their environment, behaviour of animals and plants, there were no means to convey this information to the district level.

In one case, an impending landslide was discovered by three women paying attention to the particular singing of a bird. The District Disaster Risk Management Council was approached and subsequent dialogues on how the indigenous community functions, and how the Council operates, created an environment for cooperation. This was followed up by jointly organized simulation exercises, where context-specific challenges and opportunities were identified. This led to a better identification on how existing capacities of indigenous communities can be used for disaster response, e.g., by including traditional knowledge into Early Warning Systems, adapting well-established response practices to fit indigenous living environment and culture, or making development actions sensitive to their impact on indigenous communities and their resilience.



Having acknowledged the contribution of indigenous communities to risk management, the District Disaster Risk Management Council modified its statutes, enabling them to participate in decision-making. This underscores the importance of influencing policies to create an enabling environment for participation and inclusion.

Further lessons were learned in the Dominican Republic and Cuba, where the “Ponte Alerta” action promoted inclusion and protection in shelters. A nationwide census of these shelters, making use of 100 variables on capacity and condition, resulted in an up-to-date database of these facilities and allowed to estimate protection needs. This led to the implementation of 9 protection and inclusion criteria to measure accessibility and compliance with minimum standards focusing on shelters.

As a result, of the 3.262 authorized shelters, only 2.408 were identified as meeting the required minimum standards. This information was included in the Comprehensive National Information System. In parallel, protection, gender, age, disability and inclusion variables were institutionalized in disaster risk reduction by strengthening existing governmental coordination and consultation structures. Members of the Civil Defence were trained on humanitarian protection and dignified treatment, and national- and regional-level advocacy on gender and inclusion was carried out. The countries’ Emergency Operation Centre protocols were revised to include protection, gender, and age considerations. During COVID-19, life-saving communications were tailored to the specific needs of different groups. This included multi-lingual and braille resources.

Inclusion of people with specific vulnerabilities: recommendations

Continued efforts must be made by national and sub-national authorities and disaster risk management structures to ensure that inclusion and protection issues are fundamental parts of preparedness and response efforts. These should safeguard that protection, gender, age, disabilities and inclusion concerns are part of assessment, design, planning, implementation, monitoring and evaluation, reinforced by capacity-building efforts of relevant actors. Facilitating and reinforcing the inclusion of indigenous communities into local disaster risk governance structures enhances the understanding of risk and makes risk mitigation and preparedness for response more effective. Existing resources, such as guides and minimum standards on protection and inclusion, are valuable tools for creating a common approach as well as fostering quality control and accountability. Supporting digitization initiatives pushed forward by various national disaster risk management agencies offers the opportunity to overcome institutionalized gaps. This is particularly relevant for vulnerable groups. Protection-, gender- and age-relevant disaggregated data can, therefore, be made more readily available to decision-makers and incorporated into national response strategies.

Technology and data

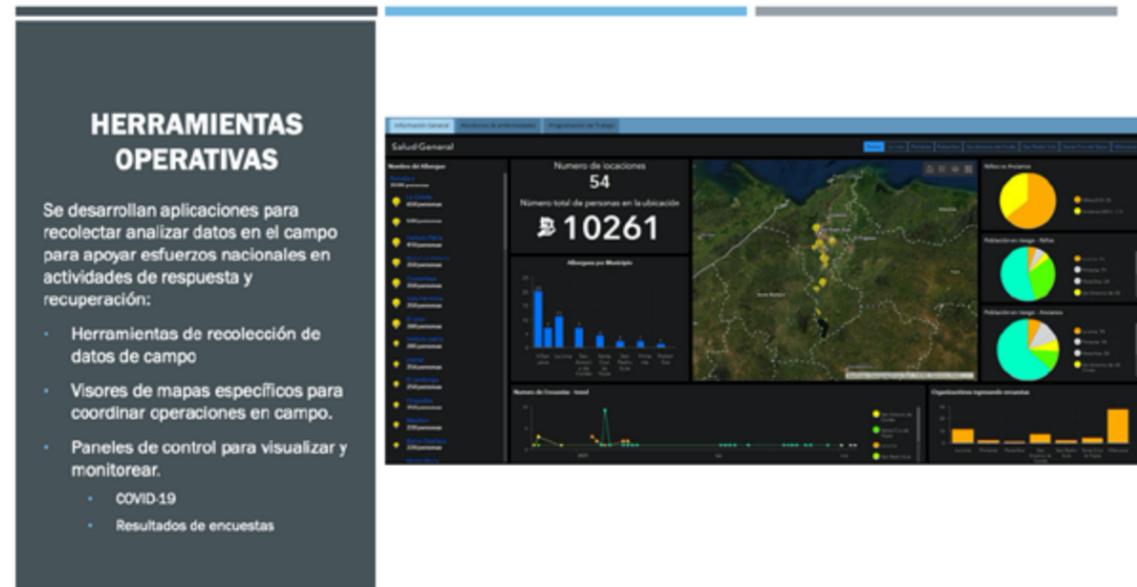


With the use of technology, more and more data are being made available to the humanitarian community to gather knowledge about risk, take informed and timely disaster risk management decisions, and reduce losses. In this regard, CEPREDENAC works to provide risk management institutions and Civil Protection in Central America and the Dominican Republic with practical and effective tools for the use of geospatial information for disaster response. Information is provided by each country and linkages with technical-scientific institutes allow for access to updated information. A regional online information and coordination platform dedicated to compiling, organizing, and systematizing information on integrated risk management is under development. With it, decision-makers will be able to trigger actions based on accurate information and user-friendly visualization of data analysis. The platform will track and monitor epidemiological, atmospheric, geological and environmental events, and go as far as providing operational tools to collect and analyse data at field level and create maps of ongoing field operations.

PLATAFORMA DE INFORMACIÓN Y COORDINACIÓN ESTRUCTURA

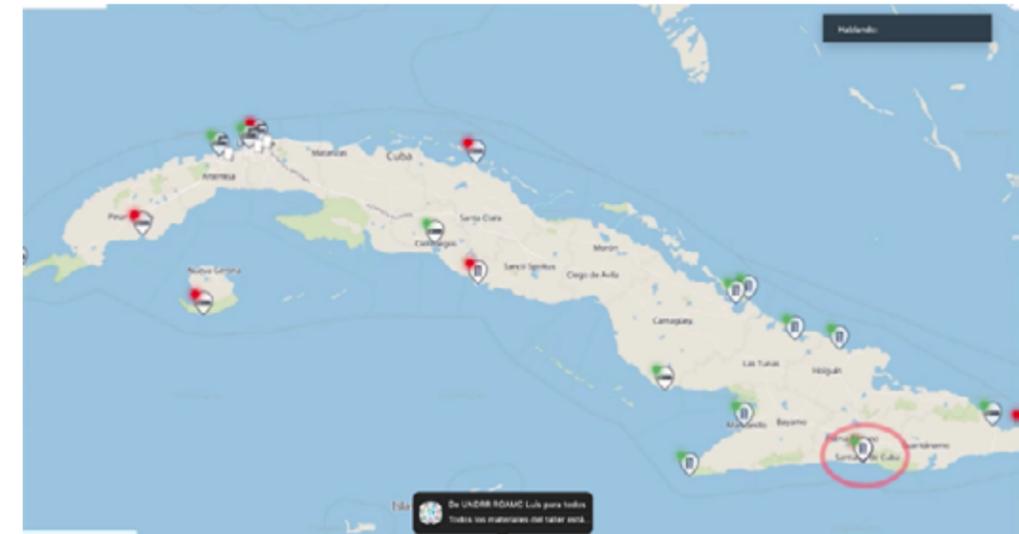


With the outbreak of the COVID-19 pandemic, the Central American Digital Integration System and the SICA/COVID Information and Coordination Platform were set up. These platforms promote strategic communication with a comprehensive risk management perspective, utilizing an integrated geographic information system to identify the impact and extent of the virus spread. They promote real-time monitoring of COVID-19 and other hazards in the region, linking national and regional information with the Mesoamerican Integrated Risk Management Network, which includes Mexico and Colombia, enabling informed decision-making and facilitating the identification of threats, vulnerabilities and local capacities in a timely manner.



Knowledge transfer takes place through an online campus driven by an educational community made up of 24 universities throughout the region. This online campus provides participants with resources on contingency planning, business continuity, tourism and comprehensive disaster risk management, and creates linkages between academia and local governments. The campus offers synchronous and asynchronous courses, adapting to the diverse time availabilities of participants. Another example of how technology and data can benefit disaster preparedness is the standardization of Food Security and Nutrition (FSN) data in the Central American Dry Corridor, driven by a consortium led by Oxfam. With actions stretching over Guatemala, El Salvador, Honduras and Nicaragua, comparable information across the four countries was needed. Better situational insight for each country allowed the consortium to maximize their presence in the different areas and create synergies with other actors, such as Ministries of Health and PROGRESAN-SICA at regional level.

The standardization process of FSN indicators involved agreeing on the parameters to be collected and identifying those which could be widely shared with partners. WFP's Consolidated Approach to Reporting Indicators of Food Security (CARI) methodology was used for this purpose, given it is an internationally recognized tool. Its analysis of various food security pillars, such as consumption, household coping strategies, food expenditures and others, allowed for relevant information to be easily shared with national and regional actors. As a result, information from 100 municipalities across four countries is being used for better targeted and more effective food security actions.



In Cuba, the consortium made up of OXFAM, Plan, Habitat, Ciudad Alternativa and Humanity & Inclusion acquired and implemented a network of mobile seismic stations, equipment and computer resources, strengthening the local and national Early Warning System. This was enhanced by the procurement, installation and implementation of a sea level monitoring system on the coast of Santiago de Cuba. Of the 9 stations that make up the national network, this is the first one to send real-time data to the Civil Defence, meteorological and oceanographic institutions. The gathered sea level data will make it possible to correct or validate the forecast and modelling of extreme events. Furthermore, the resulting database will facilitate the medium and long-term analysis of trends along the south-eastern coast, contributing to the forecasting of the effects that climate change may have on the coastal environment.

In Mexico, UNICEF sought to reduce the risk of adolescents dropping out of school in violent contexts in the states of Chihuahua and Guerrero, by means of the Quipper digital education platform. Tablets loaded with the secondary school curriculum were distributed to 14 schools. Teachers received training on a blended learning strategy, combining face-to-face and technology-enhanced teaching. Teachers were able to monitor their students, in order to maximize achievement and learning. Monitoring and evaluation recorded an improvement of learning achievements of 12.75% on average among 6.200 adolescents. In Chihuahua, school abandonment dropped from 39.5% to 9.7% and in Guerrero, from 27.5% to 9.9%. In addition, 86% of students at high risk of dropping out of school continued their studies from the 2018-19 to the 2019-20 school year. Nonetheless, the Quipper platform was offered by a private company who, due to external market factors, closed its operations. Despite the success of UNICEF's work, the necessary resources involved in Quipper's operation made the initiative unsustainable. Hence, while technology can improve the quality of education in marginalized contexts, low tech and offline interventions need to be considered as well, as these are often easier for governments to adopt and sustain.



Pero a veces es difícil, porque tenés que buscar un lugar donde haya señal.

Another example of technology enhancing access to education in a difficult context is seen in Paraguay. There, Humanity & Inclusion, together with COOPI, installed mobile phone antennas to increase connectivity in vulnerable areas. With the installation of 7 antennas, 2.200 people received better access to internet, benefitting both teachers and students. Furthermore, the fitted capacity has since been used to disseminate protection and COVID-19 related messaging.

Technology and data: recommendations

The continued embracing of technological developments is an important resource for working in increasingly interconnected risk, hazard and capacity contexts. As a result, more and richer risk data can be collected and analysed into valuable information, improved awareness about ongoing operations can be achieved, decision-making becomes timelier and more effective, and response strategies and services provided to people offer better answers to their needs and priorities. Continuous technological growth offers many opportunities, such as increasing environmental sensor data feeding Early Warning Systems and event modelling. In Central America, CEPREDENAC provides practical and effective tools to partners for the use of geospatial information in disaster response, as well as collaboration and learning spaces. This can be used to triangulate vulnerabilities with multiple hazards. These collaboration spaces contribute to inform policy and coordination through access to disaster management plans. They also provide more efficient data sharing and management systems, with the use of open-sourced software. The information ecosystem created by such a platform facilitates the nexus approach, by making information available for both immediate disaster response as well as for the pursue of long-

term goals. Technologies for remote sensing and remote images around an impacted area and their subsequent analysis can help overcome physical access constraints. Synergies among partners and countries require de-localized data, which in turn call for consensus on data parameters and criteria. Only then will information be comparable across various contexts, informing decision-making on targeting and resource utilization. Joint assessments, tools and data collection are important at an organizational level for multi-mandated organizations bringing together different teams, at a response level. Nonetheless, whilst technology can provide many advantages, its drawbacks must always be thoroughly considered. Sustainability, maintenance costs and capacity for interoperability with other systems are some of the criteria to consider. Where appropriate, low-tech solutions or complementing actions should be implemented as well as they provide either redundant or sustainable alternatives.

Coordination and logistics



On 9 April 2021, shortly ahead of the workshop, La Soufrière volcano, located on the Caribbean island of Saint Vincent, erupted explosively and continued over the following days. This event provided the opportunity to discuss response efforts as well as coordination challenges and opportunities in real-time during the workshop.

From a regional perspective, CDEMA and OCHA are key disaster preparedness and response coordination actors in the Caribbean, alongside other actors such as the United Nations Resident Coordinator in Barbados and the IFRC. In 2020, CDEMA and OCHA launched the Joint Interoperability Manual that outlines some of the similarities and differences between these key coordination actors. Its aim is to help define and clarify procedures, roles and responsibilities as well as enhance the interoperability of teams, tools and services. The Interoperability Manual provides the opportunity to enhance response efforts and to work collaboratively in a more seamless way. With the COVID-19 pandemic and a Dengue fever outbreak, the eruption adds to an already complex scenario, just weeks ahead of the beginning of the 2021 hurricane season. The interoperability framework has enabled the rapid sharing of information across various sectors, organizations and entities, and facilitated the coordination of large groups of people.

The uncertainty on the duration of the volcano emergency underscores the importance of strong and connected information management systems. Information will need to transition over time as response moves into early recovery and long-term recovery afterwards. With several actors working along these phases, information needs to be conducive for decision-making driving the various transitions.



The collaboration between CDEMA and OCHA allowed for the inclusion of a people-centred capacity-building segment into the regional response system, ranging from training to information sharing and decision-making. Trainings carried out over the past two years made it possible to implement advanced tools to monitor who-does-what-and-where. This has allowed for much assessment data, collected in a short period of time, to be used for evidence-based decision-making. In the future, these processes are expected to be further refined by means of simulations. The context of Saint Vincent and the Grenadines presents unique challenges, such as managing several players in a situation characterized by confinement and quarantine, and scarce accommodation opportunities for residents, tourists and humanitarian actors alike. Since engaging in the response in December 2020, CDEMA has had to support shelter, evacuation planning and logistics remotely. Furthermore, with each country establishing their own COVID-19 policies, close collaboration with the Caribbean Public Health Agency (CARPHA) and the Ministry of Health of Saint Vincent and the Grenadines was necessary. Working with the Government, CDEMA's coordination efforts have contributed to the management of incoming support, thereby avoiding overburdening local response systems with humanitarian actors or emergency supplies.

The collaboration between OCHA and CDEMA allowed for the use of satellite imagery provided by the Pacific Disaster Centre or ONUSAT and the EU COPERNICUS mapping system – activated since the onset upon the Government's request – to gather preliminary data or triangulate information then used for decision-making. CDEMA is currently working on sector-specific assessments, allowing for more detailed insight into achievements and gaps as response progresses to recovery. In the case of the Federation of Red Cross and Red Crescent Societies (IFRC) and the Saint Vincent and the Grenadines Red Cross, efforts had been deployed beforehand. As a result, volunteers were trained, in-kind assistance was prepositioned and use was made of the expertise of other Red Cross and Red Crescent Movement actors in the region. The IFRC also works with NEMO and other national authorities on International Disaster Response Law (IDRL), in order to arrange for timely and relevant entry of relief items and personnel. Nonetheless, the island's geographical constraints put additional burdens on response efforts, requiring the deployment of individuals with inter-sectoral knowledge, as opposed to a larger team of specialists.

In the Dominican Republic, the WFP, the Red Cross National Society and the IFRC worked towards an improved national and regional emergency supply chain and response strategy for the Caribbean Humanitarian Corridor, specifically including Cuba and Haiti. Through effective coordination, each partner contributed to one of three specific areas, resulting in a cross-cutting action that saw logistical capacities increased, a warehouse with prepositioned items for 5.000 families set-up, and an IDRL study carried out. As a result, a timelier response is possible, since financial and administrative procedures have been revised and standardized, water, sanitation and hygiene equipment and supplies have been stored, and recommendations to governments on how to expedite customs and migration processes for humanitarian actors have been provided.

Coordination: recommendations

The explosive eruption of La Soufrière volcano on the Caribbean Island of Saint Vincent, shortly before the workshop, provided evidence of the advancement in regional coordination achieved by CDEMA and OCHA. The importance of information management systems to collect, analyse and disseminate large amounts of data among numerous actors involved in a response has been evident. The interoperability among institutions contributed to a more structured response in a complex scenario where multiple factors like the geographical characteristics of a small island State, the COVID-19 pandemic, a Dengue fever outbreak and a volcanic eruption came together. The positive impact of cross-institutional coordination can also be appreciated along the Caribbean Humanitarian Corridor, where diverse institutional expertise resulted in increased logistical capacities achieving a people-centred approach. Installing resources ahead of time, such as training staff, prepositioning stocks and working with national governments on International Disaster Response Law will speed up the movement of staff and the provision of assistance. Also, joint scenario modelling can facilitate anticipatory action for complex scenarios. The response to La Soufrière volcano has shown the added value of the private sector participating in response efforts. However, this sector must be invited more consistently to preparedness and coordination fora. From there, the private sector can buy-in as active players into contingency plans. Inclusion into coordination structures must also be extended to local civil society organizations, who usually do not appear in data management streams or "who-does-what-where" mappings, yet carry out important community level interventions.

Volunteering and first response



The importance of community engagement is illustrated by WFP and UNDP in Cuba, where the effects of drought have become more acute over the years, while response is not organized effectively in comparison to hurricanes. Farmers and food producers had not experienced such drought in years, only reacting when animals began to starve and crops-harvests losses occurred. Cuba being a region with a high risk of drought, efforts focused on strengthening local capacities to manage water scarcity in a more comprehensive way and mitigate its impacts on local food production and water management.

To tackle this situation, several tools were developed, validated and implemented. A procedure was established to identify and assess the vulnerabilities to drought of food production, down to the producer level. Through a participatory process, a matrix was developed with 4 variables (water, farm management, crops and soil), linked to 28 vulnerability indicators. Prioritization using the resulting matrix facilitated the reduction of vulnerabilities and made it possible to identify the productive groups with the greatest potential losses. From there, a two-pronged approach was set up and involved, on one side, producers participating in local risk management, and on the other, institutions carrying out hydro-meteorological monitoring and water resources management.

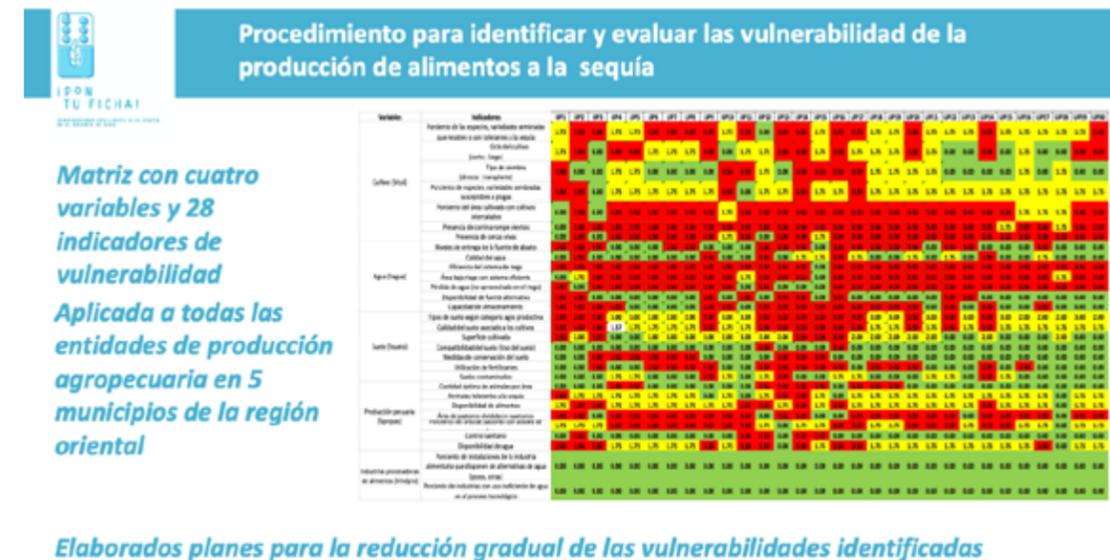
When anomalies in rainfall patterns are identified, participating institutions take on predefined roles and specific functions are assigned to local actors². The procedure prioritizes analysis of forecasts to facilitate the implementation of early measures. Producers now have more time to prepare, and actions are implemented gradually and progressively. To ensure monitoring information reaches producers, local authorities and other local actors in a timely manner, a communication flow was set up in every municipality. All these elements are integrated into the national contingency plan, the Disaster Risk Reduction Plan, allowing local authorities and producers to implement actions in advance, adapted to their production's vulnerabilities and the estimated threat magnitude.



On the mainland, Chiapas, on the border between Mexico and Guatemala, is a transit point and a destination for refugees, asylum seekers and migrants, mainly coming from Central America but also from Haiti, Cuba and other continents. Many reside temporarily or permanently in shelters and are exposed not only to natural phenomena but also to insecurity and violence. The disaster risk reduction programme implemented in migrants shelters in Tapachula, Chiapas, encourages children, adolescents and adults on the move to work together with shelter staff in the promotion of safe spaces. Disaster Risk Committees made up of community members are set up. Trained to recognize and address threats, these Committees are empowered to carry out key prevention and mitigation activities from within the community itself. Furthermore, members of these Committees are allowed to exercise their own decision-making rights about self-care, that of their family and the community in the event of an emergency.

This community involvement ensures that the identification of risks, hazards and vulnerabilities incorporates ample perspective from people on the ground, contributing to more relevant risk prevention, mitigation and response actions. To uphold this initiative during the COVID-19 pandemic, measures taken included sessions with limited numbers of people, adequate hygiene protocols, remote monitoring and accompaniment sessions, providing friendly information through posters, banners and leaflets to reach more people in a safe way.

In Nicaragua, brigades trained by Plan International played a key role during the Hurricane Eta and Hurricane Iota responses. In preparation to their imminent hit, national systems issued warnings activating territorial networks, positioned teams and mobilized reactive capacities. Upon impact, procedures and actions were implemented and success was achieved through the strengthening of COMUPRED's structures and brigades, responding effectively to the emergency. Estimates forecasted 4.000 people to be at risks of loss, injury or death. However, the sectoral



2. Local refers to both national and local government actors, civil society, academia, private sector and communities.

commissions articulated by COMUPRED were able to carry out surveys, evacuate families and provide essential services. Health assistance, distribution of chlorine and family visits to carry out hygiene promotion were key response components, and children were targeted with socio-emotional support. Seventeen thousand people were evacuated, and the brigades played a key and important role in the process.

Volunteering and first responders: recommendations

Community participation increases not only population's ability for self-protection, but also the effectiveness and relevance of preparedness and response actions by authorities and partners. Furthermore, it contributes to a more efficient use of resources, reinforces dignity among the affected population and promotes inclusion and accountability. For example, community participation in the design process of Early Warning Systems improves the timeliness of early action, as warning signs can be identified at a much earlier stage. For this to work effectively, community input needs to be factored in at both national and sub-national levels for all four components of a people-centred Early Warning System: risk knowledge; monitoring and warning; warning dissemination and communication; and response capability. In the case of people on the move, it enables highly vulnerable groups to react to hazards in contexts of limited social support networks or State services. Similarly, preparedness actions carried out with municipal-level disaster prevention, mitigation and response committees allowed for meaningful linkages to be established with a large network of volunteers during the response to Hurricanes Eta and Iota in Nicaragua, Honduras and Guatemala. This underscores the need to invest in volunteerism and volunteers, promote a sense of belonging which then leads to increased participation, promote safe working environments, develop programmes which are beneficial both to them and to local response structures, and provide the necessary recognition of their efforts.

Private sector



ARISE, the Private Sector Alliance for Disaster Resilient Societies, is a network of private sector entities promoted by the United Nations Office for Disaster Risk Reduction (UNDRR). The Sendai Framework specifically encourages action from private sector financial institutions, including financial regulators and accounting bodies and SMEs, to integrate disaster risk reduction into business models and practices. The ARISE alliance has developed a knowledge network for businesses and entrepreneurs to prepare for risk, enabling them not only to be more resilient to shocks, but also to take risk-informed decisions affecting the wider community.

UNDRR has promoted the ARISE initiative with the creation of 20 national networks and two regional networks in Central America and the Caribbean, supporting numerous businesses to become more resilient to hazards and disasters. In the Caribbean, ARISE is present through the Caribbean Chambers of Commerce (CARICHAM), a network of 21 Chambers of Commerce,

representing 90.000 member companies. CARICHAM also supported ARISE national focal points in their engagement with ARISE and UNDRR, and facilitated the establishment of new ARISE national networks, such as ARISE Barbados, Dominica, Dominican Republic, Grenada, Haiti and Saint Lucia. Moreover, CARICHAM, in collaboration with intergovernmental partners such as CDEMA, fosters the role of the network as a platform to exchange information on risk reduction and resilience.

In middle- to low-income countries, SMEs are a critical part of the economy, representing up to 90% of all businesses, and are fundamental to inclusive and equitable development. The main obstacles preventing Caribbean businesses from investing in protection measures against disasters are insufficient capacity and resources, followed by prevention not being considered an immediate priority, as well as lack of incentives. CARICHAM, through its Disaster Risk Reduction pillar, has focused on ensuring that all Chambers are able to improve their capacity to support SMEs that are members of the Chambers network. Members of this network have become more resilient through capacity building. An awareness campaign across the Chambers, based on sharing material, tools and advice, increased the awareness of the business community to risk and recommended actions to support the prevention of disasters based on proactive actions, including preparedness for the yearly hurricane season. For instance, information has been provided on how to strengthen e-commerce, digitization, human resources and business continuity planning. This has proven to be helpful as knowledge transfer, through guidance, helps SMEs to include prevention measures in their business models, thereby ensuring the sustainability of their activities.

Tool for business continuity and recovery

The infographic is divided into three vertical sections. The left section is blue and contains the title 'IS YOUR BUSINESS RESILIENT TO COVID-19?' and logos for 'adpc' and 'UNDRR'. The middle section is red and lists '10 TIPS TO MAKE YOUR BUSINESS RESILIENT TO COVID-19' with numbered icons: 1. Stay informed, 2. Identify your core products and services, 3. Communicate with your employees and customers, 4. Establish policies for physical distancing and sanitizing workspaces, 5. Protect employee health, 6. Plan how you will operate with absent employees, 7. Prepare your supply chain, 8. Plan to modify your service delivery to customers, 9. Apply for crisis assistance to businesses, 10. Review your COVID-19 plan. The right section is blue and lists '5 ADDITIONAL TIPS TO HELP YOUR BUSINESS IF ALREADY IMPACTED' with text: 1. Ask your creditor, suppliers and others to defer rent payments, or pay in installments. 2. Build or modify your existing website or social media site to shift the focus to online sales and remote services. 3. Contact your local business associations including Chambers of Commerce to mobilize the local community to support small businesses in your area. 4. Disaster support and Government assistance package - Contact government agencies to find out about income support and loans for your employees to maintain their income. 5. Explore joining forces with other small businesses in your area to share information and offer mutual support. At the bottom right, it says 'For more information go to www.undrr.org/BCP'.

End of 2020, CARICHAM members, representing the regional business community, held meetings in the midst of the COVID-19 pandemic to share good practices on prevention strengthening and business continuity measures. In Dominica, SMEs developed their financial management capacities through a training organized together with the Climate Resilience Execution Agency for Dominica (CREAD). Other national-level initiatives, e.g., in Dominica, focused on promoting the role of financial institutions in recovery and the need for risk-informed investments.

The ARISE Saint Lucia Network developed a joint workplan with the National Emergency Management Organization. This led to a E-Symposium educating the business sector on disaster risk reduction, the value of adopting resilient practices for businesses, promoting the exchange of experiences and introducing toolkits for risk reduction and responding to the COVID-19 pandemic. Also working with various Chambers of Commerce in Central America, Action Against Hunger (ACH) and Trocaire, in association with CEPREDENAC/SICA, focused specifically on the tourism sector through the "Resilient Hotels" project. Tourism contributes between 5 and 15% of the sub-region's GDP, with about 33% of tourist spending directed towards the accommodation sector. As the region is highly exposed to multiple threats, hotel spending on safety and security attracts foreign investments. Thus, the project strengthened the resilience and management capacities of tourist destinations in six locations in Central America. In collaboration with local universities, seismic micro-zoning analysis studies were carried out, generating potential impact scenarios and analysing vulnerability levels. This information fed into local and regional awareness-raising campaigns.

Resilient and sustainable tourism in Central America is based on a sectoral model, highlighting the adoption of good practices for disaster risk reduction. This commitment came into being through a certification process, developed by national Chambers of Tourism through a consultative process within the sector. As a result, seven steps called "The Road to Resilience" were established, prioritizing realistic and achievable criteria to be adopted by small and medium-sized tourism businesses. A consensus was reached in a public-private partnership, between actors ranging from the local to the regional level. The criteria were discussed with the various Civil Protection governing bodies, the Chambers of Tourism and Tourism Institutes, and were structured around three main pillars: infrastructure, systems and administration. The action highlights how the private sector can take ownership of disaster risk management while promoting multi-stakeholder coordination and implementation mechanisms, generating knowledge, good practices in disaster risk reduction, and competitive advantages based on resilience building.

Estándar Hoteles Resilientes
CRITERIOS RRD



Private sector: recommendations

The private sector has a deep reach into the shaping of society, making it a priority for actors engaged in disaster risk management, as underscored by the Sendai Framework for Disaster Risk Reduction 2015-2030. The widely interconnected nature of the private sector requires targeting businesses' supply chains, partners and clients. Working with Chambers of Commerce enables partners to increase contingency planning and business continuity awareness among the private sector. This would enable a common understanding of "business resilience" and other disaster risk reduction terminology that applies to SMEs. Developing sector-specific or territorial-oriented business continuity tools and installing capacity for their continuous improvement by existing business networks can add value to partners' interventions. Digitalization of business models has become an increasingly used resource to build resilience among SMEs. This must be supported by incentives, such as microcredits, to allow businesses to transform and grow in a digital world. Opportunities for this should exist in both development as well as recovery finance mechanisms. The steep learning curve by SMEs on disaster risk management creates opportunities for peer-to-peer learning, thus, continuously capturing good practices and promoting the exchange of lessons learned is a valuable resource to support. A common and consensual approach to risk reduction focusing on the private sector has proven useful to agree on targets, implementation, and monitoring and evaluation.

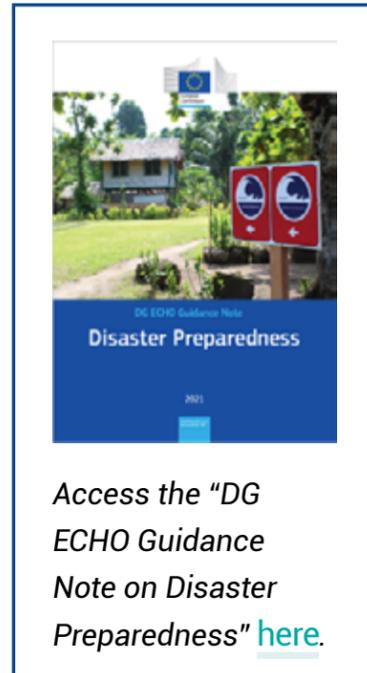
DG ECHO Disaster Preparedness & Risk-Informed Approach³



The release of the “DG ECHO Guidance Note on Disaster Preparedness” was planned to take place shortly after the workshop. The event served as a platform to provide partners with an overview of DG ECHO’s revised policy on preparedness and effective response, and the relationship between the two. Disaster preparedness is DG ECHO’s primary contribution to Priority 4 of the Sendai Framework for Disaster Risk Reduction 2015-2030: “Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction”. DG ECHO’s approach has been evolving and adjusting to the new challenges and risks caused by climate change, environmental degradation and the increasing overlaps between disasters, conflicts and fragile situations. The shift

in focus allows to achieve greater coherence with DG ECHO’s mandate for humanitarian assistance, avoid overlaps with development instruments and donors focused on long-term DRR, and adopt a system approach that seeks to building capacity of national and local governments in addition to that of communities.

DG ECHO recognizes that the effectiveness of a response depends on investments in preparedness, as a component of risk management. To this end, it seeks to mainstream preparedness and a risk-informed approach in all its response operations. It also recognizes that a risk-informed approach is crucial to reduce the humanitarian needs caused by natural hazards and human-induced threats (such as conflict and other



Access the “DG ECHO Guidance Note on Disaster Preparedness” [here](#).

Non-exhaustive list of possible Disaster Preparedness actions:

- Early Warning Systems (EWS)
- Anticipatory actions
- Logistics
- Strengthening capacity
- Shock-Responsive Social Protection (SRSP)
- Cash preparedness
- Institutional, policy and legislative frameworks
- Information management, digitalization, data and technology
- Contingency planning
- Advocacy and awareness

Specific issues/situations:

- Climate and environmental resilience interventions
- Preparedness for protection
- Preparedness for conflict and violent situations
- Preparedness for drought
- Preparedness for displacement

situations of violence). A risk-informed approach therefore implies that all humanitarian actions are designed based on an assessment and understanding of risks and are implemented to respond to and possibly reduce these risks, with the final objective of mitigating their impact.

This approach helps to systematically strengthen the capacity of first responders to be prepared for possible crises or aftershocks when responding to a crisis. It also helps to risk-proof response interventions by designing them in a way that reduces immediate and imminent risks. To complement its mainstreaming efforts, DG ECHO also supports targeted preparedness actions as a specific way of strengthening preparedness for the early response to a hazard and/or threat (e.g., establishment of Early Warning Systems, development of contingency plans and Standard Operating Procedures, emergency prepositioning of stock, etc.).

A shift in focus...

Disaster Preparedness (DP) is DG ECHO's primary contribution to disaster risk reduction (DRR)/Sendai priority 4

- Achieve greater coherence with DG ECHO's mandate for humanitarian assistance.
- Avoid overlaps with development instruments and donors focused on long-term DRR.
- Adopt a system approach - building capacity of national and local governments.

DG ECHO views preparedness as a way to promote anticipatory actions, early response and flexibility, all of which are critical to managing crises more efficiently and effectively and mitigating their impact. Natural hazards (earthquakes, cyclones/hurricanes, storms, tsunamis, floods and drought), conflict and violence, disease outbreaks and epidemics, such as Ebola or COVID-19, and technological and industrial hazards are all considered events leading to disasters. Consequently, a multi-hazard and multi-threat approach means that preparedness applies to any type of crisis and covers all types of risks, from natural and biological hazards to human-induced threats, such as technological hazards (e.g., industrial), conflict and violence. It is understood that preparedness is an important component of the larger work on Disaster Risk Management.

³ Content of this chapter is based on the “DG ECHO Disaster Preparedness & Risk-Informed Approach” presentation delivered during the workshops and includes extracts from the 2021 “DG ECHO Guidance Note on Disaster Preparedness” document.

Strengthening the capacity of local actors, involving affected people in the design and implementation of activities, and promoting sensitivity to gender, age and diversity, as well as conflict dynamics, are critical elements of both mainstreaming and targeting preparedness actions. As DG ECHO focuses on the most vulnerable populations, in the context of Latin America and the Caribbean this would mean, for instance, concentrating on indigenous populations, forcibly displaced people and asylum seekers. Similarly, the effects of climate change and environmental degradation are increasingly integrated into all interventions in recognition of their role as risk multipliers. Protection and respect for humanitarian principles are integral to all DG ECHO funded interventions. Although preparedness does not address the structural causal factors of disasters, it complements the longer-term risk management strands (Prevention and Recovery) that form part of a developmental approach and fall within the remit of other services of the European Commission.

The recurrent, protracted and complex nature of many crises reinforces the importance of designing interventions that address development and peacebuilding challenges as well as humanitarian needs. This can be done through the Humanitarian-Development-Peace (HDP) nexus approach, which is based on a shared vision about the importance of investing in prevention and addressing the underlying root causes of vulnerability, fragility and conflict, while simultaneously meeting humanitarian needs and strengthening resilience, thereby reducing risks. Within this, resilience is a central objective of EU development and humanitarian assistance. DG ECHO strongly promotes the nexus approach and the idea of engaging with development and peace actors in preparedness activities, and throughout humanitarian operations, to increase their sustainability and promote resilience.

It is imperative that DG ECHO's preparedness actions, be they mainstreamed or targeted, are undertaken in a way that complements and/or reinforces ongoing or upcoming relevant development initiatives. Such synergies will improve the impact of DP and DG ECHO funded actions. They should therefore, whenever possible, include an exit strategy that addresses the issues of scaling up and integrating elements into longer-term risk reduction and development interventions.

2021-2024 Funding Priorities in DP

1. Risk-based and anticipatory actions;
2. Preparedness in conflict and fragile settings;
3. Climate and environmental resilience;

Funding priorities for 2021-2024 will focus on risk-based and anticipatory actions, preparedness in conflict and fragile settings, climate and environmental resilience, and urban preparedness, taking into consideration priority cross-cutting themes: increase preparedness for ensuring protection in disaster, strengthen logistics capacities for more effective and efficient response, and enhance partnerships with emergency management authorities, Civil Protection, climate and scientific actors and academia, as well as the private sector.

High Level Dialogue



The fourth and last day of the event revolved around the dialogue between intergovernmental agencies, national authorities and representatives of international, multilateral and binational cooperation agencies in the region on addressing systemic risk and identifying successes, replicable good practices as well as challenges for disaster preparedness. The discussion offered regional and national authorities the opportunity to outline their priorities, thus informing the direction of disaster-preparedness in the region.

Sub-regional experiences, perspectives and priorities for disaster preparedness

CEPREDENAC/SICA

Risk factors have an undeniable impact on development, and their management is key to reduce uncertainties in certain contexts. This requires a paradigm shift, from a view of risk as a progression to one of systemic risk, of interconnectedness of systems. The Central American Policy for Comprehensive Risk Management (PCGIR, by its acronym in Spanish) promotes resilience grounded in governance for disaster risk reduction, inclusive climate change adaptation, the use of services for hydrometeorological and climate information, urban resilience, financial management, and resilient investment for a safe development agenda. With the policy being ratified by all member states, and providing for context-specific guidance and targets, it is the region as a whole that contributes to the Sendai Framework for Disaster Risk Reduction 2015-2030. The regional risk reduction plan stemming from this policy includes monitoring mechanism to inform progress on the Sendai Framework.

The Central American institution has advanced important regional data collection and information management systems. In turn, these have been scaled down to national-level contexts, such as in Nicaragua by SINAPRED. Decision-making by national and regional actors has been enhanced over the years thanks to continued efforts in this area. Sustained policy developments and reviews,

such as those carried out in the Dominican Republic, have made national legal frameworks more protective of life and aligned with the Sendai Framework. At regional level, this effort sees free transit for people and goods, in the scope of risk management, being addressed with chancelleries. Specialized first responder brigades with the capacity to deploy regionally are an important part of the system's surge capacity. Enhanced civil-military relations provide additional opportunities for these brigades to be deployed.

The Regional COVID-19 Contingency Plan, also ratified by member States, supports countries for the development of national containment, treatment, prevention and recovery plans. These plans closely articulate health and disaster risk management authorities and actors.

CEPRENAC's regional coordination and information platform will continue to strengthen preparedness and response, as well as strategies, policies and plans to articulate synergies among partners.

CAPRADE/CAN

Regional priorities captured by the 2020-2021 Operational Plan underscore the development of methodological guidelines for the strengthening and inclusion of disaster risk management in public investments, as well as the articulation and financial promotion of disaster risk management among member countries. A project financed by the Bill and Melinda Gates Foundation seeks to strengthen the inclusion of risk management in public investments and develop disaster risk financial protection mechanisms to ensure sustainable development amid CAN members.

Public sector investments intend to mitigate existing risks or reduce future ones, while guaranteeing long-term sustainability. With these financial mechanisms becoming effective development instruments in the sub-region, vulnerability is expected to decrease. Disaster risk financial protection refers to instruments and mechanisms available to manage disaster-related expenditures, known as contingent liabilities, which are measures that contribute to disaster reduction, response preparedness and recovery. Intentional risk retention and risk transfer make up some of the layers in this area.

New mechanisms are being worked upon to reduce residual risk, meaning to reduce the risk remaining after intentional risk retention and risk transfer instruments are put in place. The project defined the development of guidelines for the inclusion of public investment and financial protection mechanisms. This involves the elaboration of a sub-regional diagnosis that includes the analysis of each country's regulations and the cost-benefit assessment of their disaster risk management actions.

Challenges ahead include the implementation of these financial protection instruments not only at national, but also at sub-national level. Today, most of the regional and national instruments have difficulty reaching localized needs. It is important to realize that financial protection behaves like any other wholesale trading, where increased volume results in lower individual costs. Therefore, the linkage and complementarity of regional and sub-regional initiatives is a fundamental need for the CAN countries.

CDEMA/CARICOM

The explosive eruption of La Soufrière volcano on the island of Saint Vincent, only weeks ahead of the hurricane season, underscored the need for continued focus on disaster preparedness in the Caribbean. The reality of small island States means that the effects of new crises are felt while recovery from past events is still ongoing. Response systems are tuned into the frequent events, such as meteorological hazards, but it is the less recurrent ones that cause the most severe losses.

The region articulates its work under the Comprehensive Disaster Management Strategy 2014-2024 and its 4 priority areas. This strategy was originally developed in 2001 and has proven so useful that it has been continuously revised and updated, and even aligned with the Sendai Framework for Disaster Risk Reduction 2015-2030. The current priority for CDEMA is to shift from a reactive approach to anticipatory action with shared responsibilities, and to focus on viewing hazard exposure as an ongoing process that requires reducing vulnerability across all sectors. More so, it needs to include not only a multi-risk and multi-hazard approach, but also an approach capable of responding simultaneously to various occurrences. The systemic nature of risk, the multiple stressors affecting the systems and the resulting cascading effects require disaster preparedness to be more robust in the future.

The Caribbean Resilience Framework, approved in 2018, outlines 5 pillars: social protection for the marginal and most vulnerable people, enhancing economic opportunity, safeguarding infrastructure, environment protection, and operation preparedness and recovery. Priorities include the strengthening of data collection, analysis and information management to produce timelier, more accurate and relevant assessments. Tools exist for gaining insight into ongoing situations, but modelling based on historical data is not sufficiently accurate. This was recently made evident when significant ashfalls were seen on islands where none were forecasted, and consequently limited preparedness action had been taken. The events over the past years have also highlighted the importance of better coordination. Not only between the regional and international community, but also among government decision-makers and national-level operational structures. Contributing to this endeavour will further strengthen existing communication channels to make them more shock-resistant and ensure continued interaction during crises. Shock-responsive social protection systems need to be in place to cater and assist people already in a vulnerable situation or those affected by a disaster. At last, human resources need to be unremittingly reinforced through training and testing.

RMAGIR/MERCOSUR

Articulation between MERCOSUR countries is key. Therefore, the entity seeks to create and strengthen common criteria to enable the implementation of emergency preparedness and risk mitigation mechanisms. In order to do so, the sub-region has committed itself to a Disaster Risk Management Strategy aimed at supporting risk management governance, advancing dialogue among members and others outside the bloc, coordinating synergies among actions, and enhancing the sustainability of existing sub-regional instruments and mechanisms.

Diversity among the bloc's members calls for a high degree of flexibility during the building of scenarios and implementation of actions. Focus lies on promoting gender equality, respecting interculturality and local knowledge, preserving biodiversity, and including these dimensions into all risk management issues. The long-standing history of dialogue and economic relations provides a conducive environment to address outstanding coordination challenges.

Nevertheless, COVID-19 response efforts in the sub-region would not have been successful without the strong coordination between the States and social and community organizations. Be it regarding the development of social, economic, or health policies. As these organizations tend to mediate between the State and the audiences targeted by the policies, they enabled a value-added inclusion of care practices.

Poverty is the main underlying cause of vulnerability, determining coping capacities when facing a disaster. Risk management models must be mindful of economic, gender, ethnic, race and migration related inequalities, among others. Ongoing efforts are under way to establish a two-year work programme, for which priority areas of interest of MERCOSUR governments are being identified, to develop a comprehensive and systemic approach to disaster preparedness and response. In addition, a risk information system with geolocation references is being set up and will make it possible to identify shared areas of concern between member States. Strategies to address these concerns can therefore be jointly developed.

Within the framework of the systemic nature of risk and the importance of sustainable development for comprehensive disaster management, the extension of these actions and their impact on communities need to be strengthened through the development of specific projects supported by the international community.

Inter-country roundtable on sectoral perspectives on disaster preparedness



The following section summarizes the key points raised by each representative attending the roundtable. Their views outline sub-regional priorities and issues, and collectively set the frame for disaster preparedness in the coming years in Latin America and the Caribbean.

SINAPRED, Nicaragua

Dr. Guillermo González, Minister Director, SINAPRED, on the role of International and regional disaster risk management organizations:

Focusing on citizens' rights has allowed Nicaragua to strengthen healthcare, education, access to livelihoods, as well as protection from risks. In this sense, disaster preparedness is a combination of protection from risks and sustainable development. Over the past years, the country has focused on moving beyond policies and legal frameworks to ensure society has the necessary functional and participatory public mechanisms to allow all citizens to be active contributors to disaster risk management. This is based on the belief that without communities being capable and trained to confront both emergencies and development, State institutions are not able to cope with the kind of crises currently seen in Central America.

International and regional organizations providing technical assistance must acknowledge each country's specificities and build on existing capacities to make actions sustainable. The Sendai Framework for Disaster Risk Reduction 2015-2030 underscores the importance of risk knowledge. This knowledge must be owned by ordinary citizens and technicians alike. Communities must be well prepared and staff from local, municipal, and national levels trained. As new technologies and platforms are being introduced, for these to achieve their intended purpose, knowledge about their use among staff is key.

Facilitating knowledge transfer and experience sharing between countries further contributes to this commitment. In these times of continuous and fast change, this is more important than ever.

Ministry of Education, Youth and Information, Jamaica

Mr. Richard Troupe, Director (Acting) Safety and Security in Schools, on making the education sector more resilient and better connected with risk management actors:

The COVID-19 pandemic and the 14 million children consequently unable to attend school in Latin America and the Caribbean have laid bare the need to make the education sector more resilient. While virtual classes are the prevailing teaching and learning strategy being implemented, insufficient access to technology and data have restricted this approach in Jamaica. Partnerships with disaster risk management actors have been essential to overcome these challenges.

An example thereof is the joint work carried out with the Ministry of Health and Wellness to provide guidance to educational institutions, and equip personnel with the appropriate knowledge, aptitudes and skills to prepare for and safely manage operation in the context of the COVID 19 pandemic.

Furthermore, the partnership was instrumental for the set-up of a COVID-19 certification process for schools.

The value of partnerships was also made evident in the exchanges carried out during the Caribbean Safe School Pre-Ministerial Forum in March 2021, in the context of a discussion on school safety and systematic risk. With the support of the World Bank, the Safe Management System was made available to all stakeholders and the Ministry of Education completed the structural assessment of schools. A more balanced use of limited resources for school maintenance and the identification of safety gaps will thereby be facilitated. When chairing the Committee on Children and Violence, the Ministry of Education and Wellness strongly focused on protection issues arising from children being isolated at home for extended periods of time due to social distancing.

The above underscores the need for the education sector to engage with the Office of Disaster Preparedness and Emergency Management (ODPEM) and its Comprehensive Disaster Management (CDM) policy.

Ministry of Defence, Bolivia

Captain Carlos Alberto Mariaca Cerball, General Director for Prevention and Reconstruction of the Vice-Ministry of Civil Defence, on how to capitalize on the exchange of successful experiences stemming from Early Warning Systems, to improve disaster preparedness and response:

As countries in the region have committed to the Sustainable Development Goals, the progress around early warning must be aligned with these. Specifically, countries should focus on and learn from each other in line with four distinct early warning components. First, acquire risk knowledge through research on and use of technology, with the aim of developing multi-hazard modelling. This will improve our capacity to forecast and analyse hazards and vulnerabilities and produce local risks maps. Second, identify and promote strategies for the follow-up and continuous monitoring by technical-scientific institutions, such as hydrometeorological services, with the challenge of increasing the density of automated monitoring stations and ensuring their maintenance and sustainability. Third, disseminate and communicate based on pre-established protocols. Information material must be prepared on a regular basis, using clear and understandable formats, to be disseminated among decision-makers at different levels of government and to the population in a timely manner. Last, learn from the development of response capacities, such as evacuation procedures or preparedness actions carried out by multi-sectoral first responders. Here, the role of institutions such as the Civil Defence is important to provide training, develop contingency plans and test preparedness and response through simulations and drills.

Several countries in the region have made significant progress in various of these four areas. Facilitating the exchange among them, particularly when contexts are shared or similar, will have a positive effect on the efficiency of early action by the diverse sectors and the population in general.

COPECO, Honduras

Mr. Oscar Renán Mencía, Deputy National Commissioner for Preparedness and Response, COPECO, on disaster preparedness priorities that national agencies, humanitarian actors and international cooperation should focus on:

The support and coordination provided by humanitarian actors and the international cooperation sector has been very important. The responses to hurricanes Eta and Iota, as well as many other achievements over the years, are evidence of their support. In this sense, the capacities of CEPREDENAC and other regional institutions need to continue to be strengthened. Here, Early Warning Systems, financing mechanisms and the permanent review of plans and methodologies are key. At the same time, community-level, sub-national and national emergency committees need more strengthening, to improve coordination and ensure that assistance is indeed delivered to those most in need. The private sector must play an active role in this as well.

Finally, preparedness and response actions must be closely linked with the development sector through organizations, such as the UNDP. Decision-makers must have a clear vision on how to integrate preparedness and response into development policies in order to assign resources more efficiently.

Directorate-General for Civil Protection, Haiti

Dr. Jerry Chandler, Director-General, Directorate-General for Civil Protection, on the priorities of national actors to support the disaster preparedness process and anticipation actions in complex scenarios:

The importance of effective coordination has been extensively underscored. Coordination is one of the paths for successful preparedness mechanisms and must necessarily be addressed collectively across institutions. It is because they provide a secure system that countries establish coordination mechanisms and other coalitions. As these coordination mechanisms include strategic planning, state-level decision-makers must be adequately prepared and receive the necessary training to understand the questions at hand. In addition, a good interaction is also necessary with municipal and local authorities. It is the last administrative echelons and community members who will provide a first response, linking it to the overall response.

Accordingly, education and training, in particular of people living in vulnerable communities, is important. Making sure they know how to act in case of emergency is essential, with drills in schools being a priority. The maximum number of well-prepared human resources and trained youth is what should be sought after.

In addition, national risk management plans are a valuable source for setting country-level disaster risk priorities. However, these priorities must be applied across all sectors, and particularly where the private sector plays a significant role. This effort must go hand in hand with good information management systems and reinforced civil-military coordination. All these actions together will result in effective and efficient disaster preparedness and response.

National Emergency System, Uruguay

Col. (R) Mag. Sergio Rico, National Director, National Emergency System, on the challenges for more effective implementation of public disaster preparedness policies in complex cross-border scenarios:

Public policies for disaster preparedness must have a multi-sectoral and multi-hazard reach. A disaster preparedness policy cannot focus on a single sector alone. For example, when drafting a policy for a new neighbourhood located in a flood prone area, one needs to look beyond the housing sector and relate to other sectors, such as the environment, education and health. Policies must be multi-dimensional, irrespective of the disaster risk one is exposed to.

Adding complexity to the matter, public policies must answer not only to present situations but also to future scenarios. Given the importance of foresight, wide-ranging and in-depth information needs to be collected to develop relevant and appropriate public policies. To minimize the uncertainty of foresight, the analysis of the collected data must focus on future hazards, vulnerabilities and risks. Scenarios modelled on this basis, although likely to be complex, can then be used for policy development.

A cross-border policy example can be appreciated on the boundary between Uruguay and Brazil. It is implemented in a city with a border running through it called Rivera and Santana on either side respectively. The COVID-19 response required the two Governments to set up a joint approach in order to have any kind of impact on the unprecedented situation. Through cooperation the "One city, two flags" policy was developed and outlined the roles and responsibilities of both Governments in their response to the pandemic. Such an example underlines the importance to plan for complex scenarios and for this process to be done jointly between countries.

INDECI, Peru

Engineer Miguel Yamasaki Koizumi, Director of Preparedness, INDECI, on the prospective future of Early Warning Systems in Peru:

In line with the Sendai Framework for Disaster Risk Reduction 2015-2030, Peru aims to increase its Early Warning System capacity so that it can react to multiple hazards. Early Warning Systems were already existing, but it is only in recent years that they have been brought together under a single National EWS Network. This EWS Network covers national and local systems, both technology-

and community-based. The Civil Defence Institute administers the network, with the collaboration of scientific committees and actors, academia, and with the support of intergovernmental and international organizations and NGOs.

From a hazard perspective, the seismic EWS is currently being developed, making use of good practices shared by Mexico and Japan. In partnership with the Geophysical Institute of Peru, accelerometer stations were set up along the country's coastline, with 114 sirens installed in vulnerable areas. It is expected that local governments will then support the idea of adding more communities to this network. Also, tide gauges were installed to provide early warnings for tsunamis, making use of the Emergency Warning Broadcasting System to disseminate alerts. In addition, Early Warning Systems for volcanic eruptions, flooding and landslides are in place. Alert dissemination also makes use of a cell broadcasting functionality to send messages with alerts in real time to mobile phone users in the country.

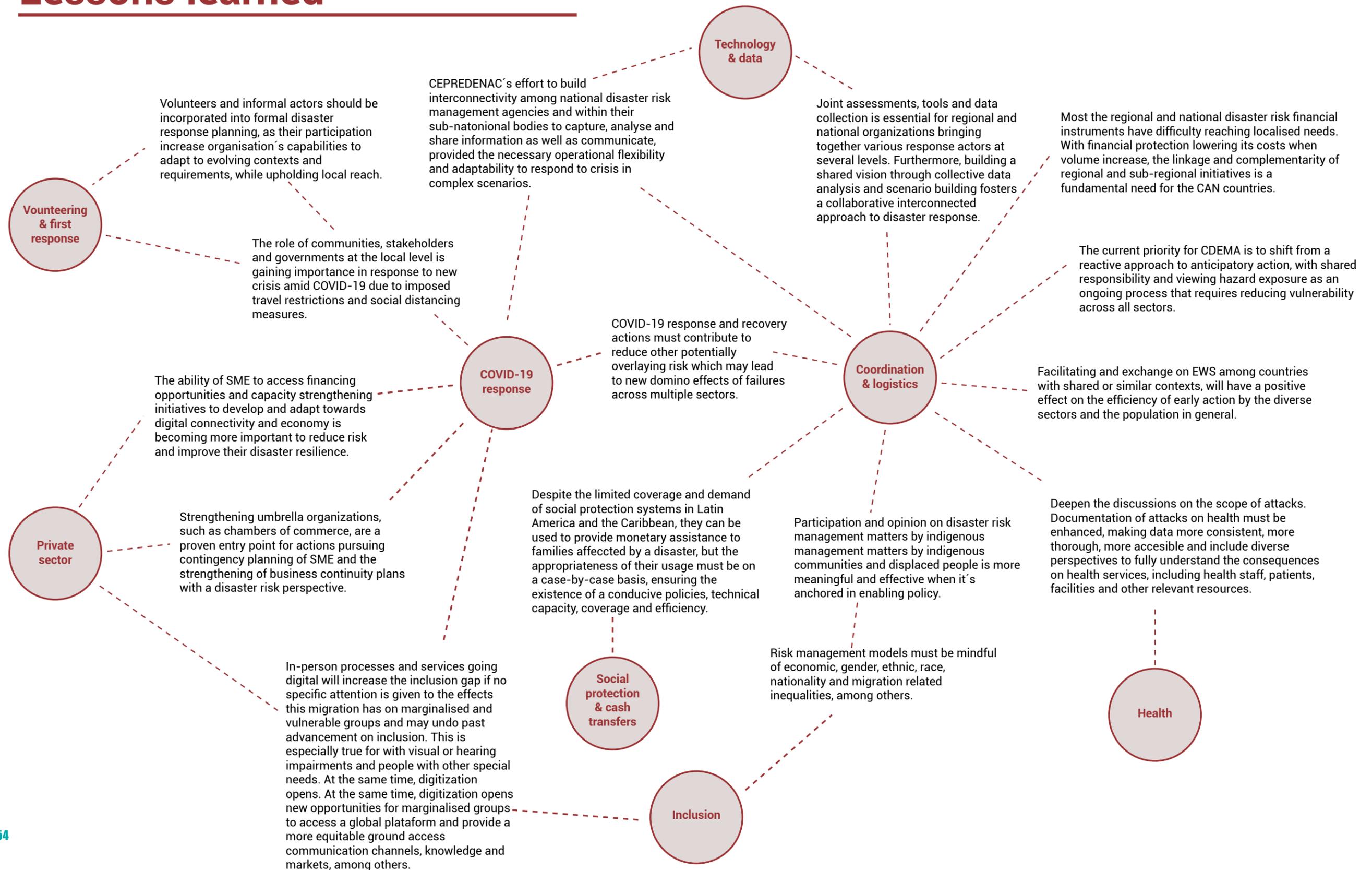
All countries in the region are making efforts to set up or improve their Early Warning System. Sharing experiences and lessons learned can be valuable to all. In particular, given EWS are indispensable resources to improve disaster preparedness and reduce human and economic losses.

Conclusions

The workshop allowed an unprecedented number of participants to take part in an exchange on disaster preparedness and reflect on an informed and systemic approach to disaster risk. Also, the systematization carried out ahead of the event proved to be valuable. This effort made it possible to focus on specific aspects relevant to disaster preparedness and underscored the importance not of continuing to implement actions to strengthen communities, but of further fostering their participation in diverse public fora. At the same time, the use of technologies continues to create new opportunities in all disaster preparedness areas, ranging from better access to services and knowledge to improved situational analysis and coordination.

Furthermore, COVID-19 has shown how interconnected our world really is and how important it is to make existing governance and social service structures more shock resistant. Lastly, the event provided a platform for participants to voice their desire to work even more closely together and bridge sectoral boundaries, moving towards a more systemic approach to disaster preparedness.

Lessons learned



Where to get more information?

Visit the [website](#) to access the session recordings, session summaries and other resources. More information disaster preparedness in Latin America and the Caribbean can be found on the [DIPECHO LAC website here](#).



To access evidence on disaster preparedness in the Americas and the Caribbean, [click here](#).



Do you want to share your evidence on disaster preparedness? [Click here](#) to learn more about what information to include and how to submit it.

ANNEX I – Participants

Representatives from the following institutions registered to the event, but with registration not being a pre-requisite for participation, some organizations may be missing:

- Action Against Hunger (Central America)
- AECID
- Alianza por la Solidaridad (Colombia)
- Andean Community
- Asociación Vivamos Mejor (Guatemala)
- Ayuda en Acción (Costa Rica)
- Ayuda en Acción (Nicaragua)
- Bill and Melinda Gates Foundation
- Bolivian Red Cross
- CAPRADE/CAN
- Care International (Ecuador)
- CDEMA/CARICOM
- CEPREDENAC/SICA
- Civil Defence Vice-Ministry of Peru
- Civil Defence Commission of Guyana
- Concern Worldwide (Haiti)
- Cooperazione Internazionale (Paraguay)
- COPECO
- Directorate-General for Civil Protection of Haiti
- DG ECHO Regional Office for Latin America and the Caribbean
- European Union Delegation to Barbados
- European Union Delegation to Bolivia
- European Union Delegation to Ecuador
- European Union Delegation to Paraguay
- FAO (Bolivia)
- FAO (Colombia)
- FAO (Regional)
- Huairou Commission
- Humanity & Inclusion (Colombia)
- Humanity & Inclusion (Peru)
- Humanity & Inclusion (Regional)
- IFRC (Dominican Republic)
- INDECI
- Lutheran World Federation (Colombia)
- Ministry of Education, Youth and Information of Jamaica
- NaDMA of Grenada
- NEMA of St Kitts and Nevis
- National Emergency System of Uruguay
- OXFAM
- OXFAM (Dominican Republic/Cuba)
- OXFAM (Regional)
- PAHO
- Plan UK (Caribbean)
- Platform on Disaster Displacement
- Presidency of the Council of Ministers to Peru
- RMAGIR/MERCOSUR
- Save the Children (Mexico)
- Save the Children (Regional)
- SINAPRED
- SINAE
- SINAPROC
- Spanish Red Cross
- SDC
- Trocaire (Honduras)
- UNDP (Cuba)
- UNDP (Dominican Republic)
- UNDP (Peru)
- UNDP (Regional)
- UNICEF (Mexico)
- UNICEF (Paraguay)
- UNGRD
- WFP (Caribbean)
- WFP (Cuba)
- WFP (Dominican Republic)
- WFP (Ecuador)
- WFP (Peru)
- WFP (Regional)
- White Helmets

ANNEX II – Event Evaluation

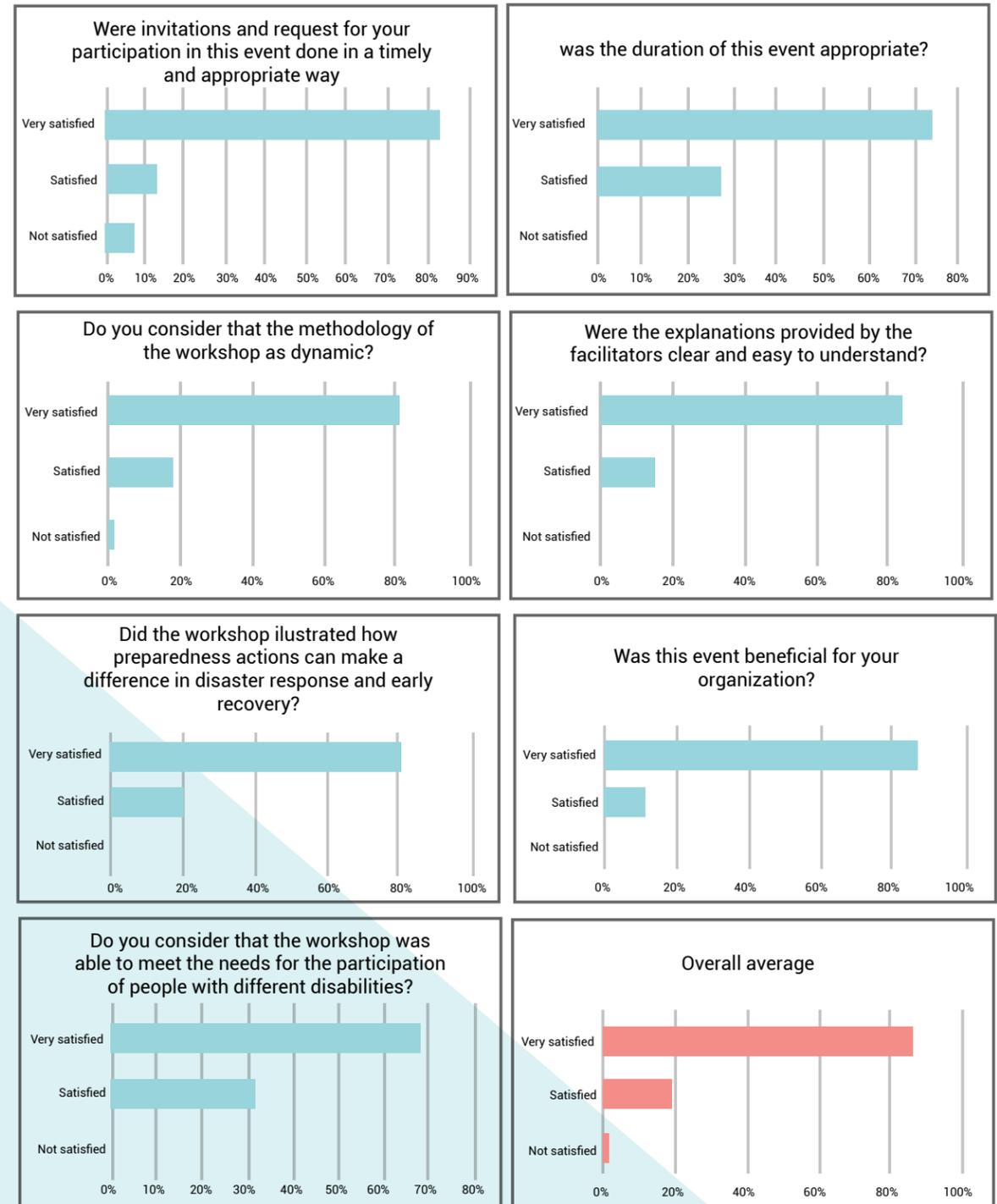
The feedback received from the 79 participants who responded to the evaluation was very positive, with the added “Very satisfied” and “Satisfied” scores for the overall average reaching 99%. The most frequent comments were encouraging remarks on the organization of the event and appreciation of the insights provided by partners’ experiences into a variety of possible disaster preparedness solutions for any given hazard. The use of sign language interpretation also received several positive remarks. Mixed feedback was voiced about the length of each session and the individual presentations, with some participants requesting them to be longer, while others pointed out that participation was too time consuming.

I've participated in other in-person iterations of this event in the past, and they have been excellent. I had my reservations about achieving the same quality and technical demands with this virtual modality, however this event exceeded my expectations.

(Anonymous)

Some recommendations by participants:

- The organization of the event must make sure the chosen communication platform is available in all targeted countries.
- Address disabilities more in-depth during the sessions.
- Allocate less time to presentations and more to analysis and lessons learned.
- Increase time for each presentation.
- Increase tools to engage the audience, e.g., voting on the most impactful experiences.
- Consider organizing “blended” events, with online and in-person components.
- Provide participation certificates to attendees.



Bibliography

Ashraf, A. (2021). Lessons learned from COVID-19 response for disaster risk management. *Nat Hazards*, Vol. 107, pp. 2027–2032. Available at: <https://doi.org/10.1007/s11069-021-04658-0>

Beazley, R. (2019). Protección social reactiva frente a emergencias en América Latina y el Caribe. El Salvador: Respuesta a la sequía de 2018. Oxford Policy Management. WFP.

Beazley, R., Solórzano, A. and Barca, V. (2019). Protección social reactiva frente a emergencias en América Latina y el Caribe: Principales hallazgos y recomendaciones. Oxford Policy Management. WFP.

Briceño, B. and Corso F. L. (2020). Cinco lecciones aprendidas en tiempos de emergencia para ayudar a enfrentar la crisis actual. Blog. IADB. Available at: <https://blogs.iadb.org/conocimiento-abierto/es/cinco-lecciones-aprendidas-en-tiempos-de-emergencia-para-ayudar-a-enfrentar-la-crisis-actual/>

Cook, R. and Penzini, S. (2020). Crisis Response. How COVID-19 unveils the systemic nature of risks. *Journal*. Vol. 15, Issue 4. Available at: https://www.preventionweb.net/files/75325_howcovid19unveilsthesystemicnatureo.pdf

ECLAC-UNDRR (2021). The coronavirus disease (COVID-19) pandemic: an opportunity for a systemic approach to disaster risk for the Caribbean. Available at: https://repositorio.cepal.org/bitstream/handle/11362/46732/1/S2000944_en.pdf

Khim, W. (2020). Disaster risk reduction in times of COVID-19: What have we learned? August 2020. Rome, FAO. Available at: <https://doi.org/10.4060/cb0748en>

Kuuyuor, T. (2020). 10th Annual UN-SPIDER Conference. Use of Space-based technology to strengthen Humanitarian-Development-Peace (HDP) Nexus in the face of COVID-19 and multiple pre-existing risks. Presentation. UNDP. Available at: <https://un-spider.org/sites/default/files/1.4UNDPTitusKuuyuor.pdf>

Lowe, C., McCord, A. and Beazley, R. (2021). National cash transfer responses to COVID-19: operational lessons learned for social protection system-strengthening and future shocks. Working paper. London, ODI. Available at: www.odi.org/en/publications/national-cash-transferresponses-to-covid-19-operational-lessons-learned-for-social-protection-system-strengtheningand-future-shocks

Rowland Fysh, A. (2020). 10th Annual UN-SPIDER Conference. Opportunities to connect space-based information to understanding systemic risks: COVID-19 & beyond. Presentation. UNDRR. Available at: <https://un-spider.org/sites/default/files/1.5UNDRRADAMFYSH.pdf>

UNDRR (2019). ARISE 2018 Activity Round-up. Available at: <https://www.ariseglobalnetwork.org/sites/default/files/2021-02/ARISE-2018-Activity-Round-up.pdf>

UNDRR (2020). Reducing Risk & Building Resilience of SMEs to Disasters. Geneva.

UNDRR (2021). ARISE Annual Report 2020. Available at: <https://www.ariseglobalnetwork.org/sites/default/files/2021-01/ARISE-Annual-Report-2020.pdf>

UNDRR. United Nations Inter Agency Issue-Based Coalition on Climate Change & Resilience. Multiple-hazards and systemic risk: Addressing climate related disasters in times of COVID-19. Available at: <https://www.undrr.org/media/47551/download>

UNISDR. (2018). Private Sector Study: Preparedness for Enhanced Resilience After Hurricanes Irma and Maria in Dominica and the British Virgin Islands.

World Bank (2020). Pivoting to Inclusion: Leveraging Lessons from the COVID-19 Crisis for Learners with Disabilities. Available at: <https://www.worldbank.org/en/topic/disability/publication/pivoting-to-inclusion-leveraging-lessons-from-the-c-ovid-19-crisis-for-learners-with-disabilities>



More
than
700
participants

