

2018 Climate-Smart Disaster Risk Reduction Mapping

Increasing outreach and investment in Disaster Risk Reduction



Key figures

In 2018 the IFRC and National Red Cross and Red Crescent Societies **invested a total of 207 million Swiss francs** on DRR projects, which were **implemented in 160 countries** and reached **52 million vulnerable people**.



72% of projects are climate smart or climate aware



66% invested in CBDRR projects

Big DRR investment was made in **Asia Pacific (37%)** and **Africa (36.68%)**.

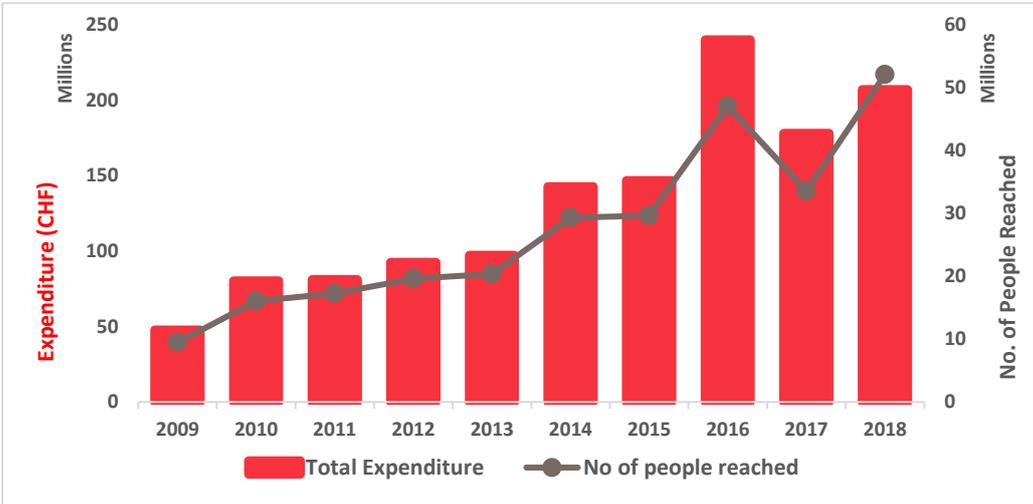
Per-capita DRR investment was **4 Swiss francs**.

Focus

The 2018 climate-smart DRR mapping aims to capture the data on DRR expenditure and the number of people reached by the IFRC network through DRR projects in 2018, with a focus on:

- 1) Mapping the community-based disaster risk reduction (CBDRR) including community-based disaster preparedness (CBDP) and food security and livelihoods activities integrated into CBDRR; DRR activities following disasters in emergency appeals and DREF operations; and National Society disaster preparedness (NSDP);
- 2) Identifying how many projects have integrated climate risks.

Figure 1: DRR investment and number of people reached, 2009-2018



2018 Climate-Smart DRR Mapping Results

IFRC has conducted the disaster risk reduction (DRR) mapping since 2009 in order to understand the scope of DRR activities and projects and scale them up through close collaboration and coordination among National Societies. The 2018 climate-smart DRR mapping has focused on the CBDRR including CBDP, DRR activities following disasters and the NSDP and on identifying how many projects are climate smart¹ or climate aware². DRR mapping results show the continuous growth of the DRR work over the years. The outreach and investment have more than quadrupled since 2009. In 2018, IFRC and National Societies invested a total of 207 million Swiss francs on DRR projects and reached 52 million people in 160 countries³. 72% of these projects have considered climate risks or included appropriate measures to reduce them.

* Details of DRR projects and expenditures in 2018 at global, regional and national levels are available [here](#).

Figure 2: Tableau DRR map and regional breakdown of expenditure

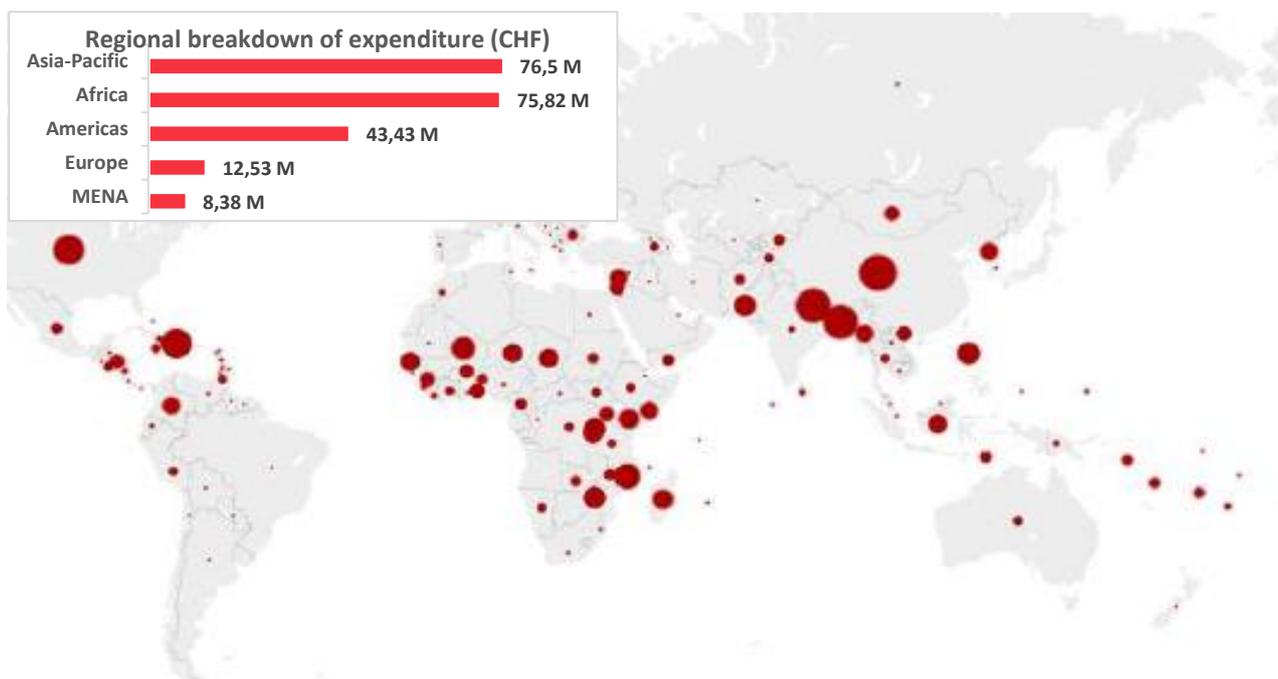


Figure 3: Top 10 National Societies with high outreach and in-country DRR expenditures

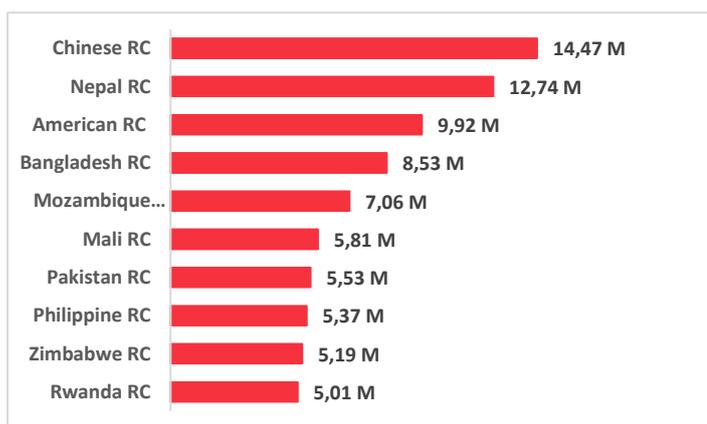


Figure 4: Top 10 donor National Societies



¹ **Climate-smart projects:** Projects have not only raised community people's awareness of climate risks but also included actions to use climate and weather information in assessing risk and vulnerability, enabling early warning and early action, and addressing in a sustainable manner climate risks and trends, changing climate and global warming impact.

² **Climate-aware projects:** Projects have used the climate and weather information and included actions to raise community people's awareness of climate risks (eg. dissemination of the Public Awareness and Public Education DRR key messages among people).

³ **The data** was collected from Operating National Societies, Partner National Societies and the IFRC Secretariat. Some National Societies failed to provide data and some of the data provided was incomplete. Therefore, the actual outreach and expenditure may be even bigger. Despite these limitations, the mapping results show global and regional trends of DRR in terms of expenditures and the number of people reached.

Looking forward

The IFRC is leading the [One Billion Coalition for Resilience](#) to scale up the work for community resilience. To enhance contribution to this global resilience initiative and in line with the [Framework for Climate Action Towards 2020](#), the IFRC will continue to encourage National Red Cross and Red Crescent Societies to further increase their reach out and investment in climate-smart DRR projects, especially by:

- Mainstreaming DRR and climate change adaptation across contexts and various programme areas;
- Enhancing anticipatory and risk-informed actions;
- Adopting innovative climate-smart DRR approaches;
- Increasing the engagement in public awareness and public education and school-based DRR education;
- Strengthening partnership with different stakeholders;
- Advocating the needs of vulnerable people and the need for increased investment in cost-effective community-based DRR;
- Strengthening the services of accompanying, enabling and connecting communities in their efforts for strengthening resilience;
- Actively engaging in implementation of the Sendai Framework for DRR, the Sustainable Development Goals and the Paris Climate Agreement.

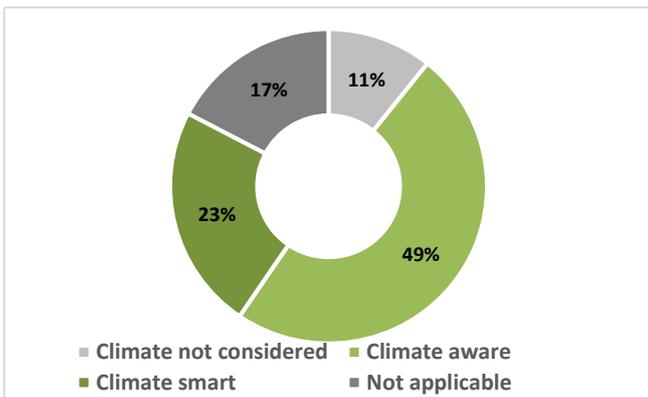
Illustrations of good practices:

Projects reported in the 2018 climate-smart DRR mapping

- Integration of climate risks

72% of the projects implemented were climate-smart or climate aware.

Figure 5: Integration of climate risks



Partners for Resilience Phase I and II

Partners for Resilience (PFR) is an alliance of humanitarian, development, climate and environmental civil society organizations, composed of five Netherlands-based members (CARE Nederland, Cordaid, the Netherlands Red Cross, the Red Cross Red Crescent Climate Centre, and Wetlands International) and their partner civil society organizations in the South. The alliance, led by the Netherlands Red Cross, focuses primarily on climate-related natural hazards, whose underlying causes and potential for disasters result to a large extent from human-induced processes. PFR Phase I (2011-2015) centred on moving

beyond business as usual to an integrated risk management approach combining disaster risk reduction, climate adaptation and restorative ecosystem management. PFR Phase II (2016–2020) builds on Phase I experience to build capacity for humanitarian dialogue, partnerships and advocacy to influence policy and investment for implementation at scale. Projects on the ground ranged from small reservoirs to improve supplies of drinking water, to fuel-saving stoves, diversification of livelihoods as a strategy against drought, reforestation of unstable slopes, early warning early action and forecast-based financing. Through ecosystem- and climate-based risk reduction, PFR I reached more than half a million people in Ethiopia, Guatemala, India, Indonesia, Kenya, Mali, Nicaragua, Philippines and Uganda, covering more than 500 communities and engaging with well over 200 government institutions. PFR II focus on the same countries, minus



Nicaragua and adding Haiti and South Sudan. PFR case studies available [here](#).

Caribbean: [Advancing Caribbean Climate Adaptation through Natural Solutions](#)

Caribbean islands are among the world’s most vulnerable to hazards, with storm frequency and intensity, flooding, wind damage and sea level rise all predicted to worsen, increasing threats to people’s livelihoods, hospitals, power plants, freshwater sources, roads, houses and schools. With funding support from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and in partnership with Caribbean DRR and CCA organizations and Red Cross National Societies, The Nature Conservancy (TNC) and the IFRC are implementing a 5-year project (2017-2021) in vulnerable coastal communities in the Dominican Republic, Grenada, and Jamaica; it aims to protect islands from the impacts of climate change by promoting the use of coastal habitats to reduce risks, and by helping governments, partners and communities carry out sustainable development plans that prioritize nature. Key activities include:

- **Building awareness** through ecosystem-based adaptation (EBA) ambassadors and hosting training and learning activities;
- **Creating an adaptation toolkit** to synthesize data and promote better decision-making around disaster risk management and climate adaptation.
- **Developing new and strengthening existing legislation** to emphasize climate adaptation;
- **Implementing demonstration projects** in 1-3 vulnerable communities in each country;
- **Launching the Resilient Caribbean Coalition** to connect stakeholders with knowledge platforms and financial opportunities to scale-up demonstration projects and integrate ecosystem-based adaptation into national and regional policy.

- Early warning and early action

IFRC and National Societies respond to current and predicted humanitarian consequences of climate change through early warning and early action work, awareness raising and innovative approaches, such as Forecast-based Financing.

Togo: [Climate Change Adaptation and Forecast-based Financing](#)

Building on a community-based early warning system using riverpoles painted by Togo Red Cross in three colors corresponding to a set of DRR actions the local community has agreed to carry out when water reaches progressively higher levels of risk, the German Red Cross provided additional support to enable communities to strengthen resilience through holistic programming including improved agricultural, water and sanitation practices, co-development with the Ministry of Environment of primary and secondary DRR/CCA school curricula on Togo’s major hazards and highlighting adaptive actions. With the Red Cross Climate Centre’s support, the Togo Red Cross entered into partnership with the Nangbeto hydro-electric dam to establish early warning early action triggers for downstream flood risk management, attracting GFDRR investment to co-develop FUNES, an innovative flood risk prediction tool. In

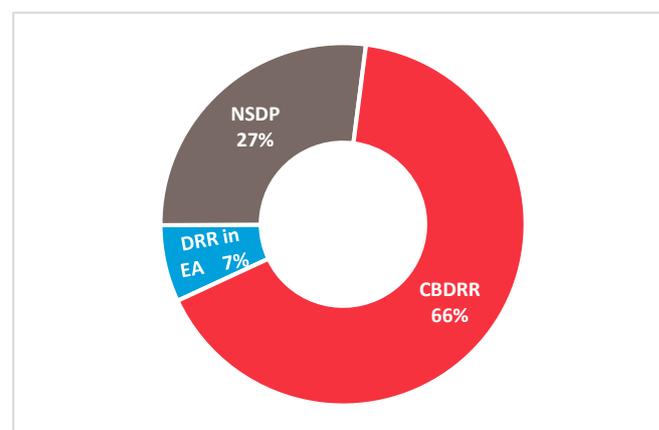
2018 FUNES was handed over to Togo’s new National Civil Protection Agency, which is now coordinating large-scale multi-agency flood risk preparedness simulations based on FUNES flood risk predictions, using and in full cooperation with the Togo Red Cross early warning early action DRR methodology.



Bangladesh: Forecast-Based Financing (FbF) and Cash-Based Programming

The Bangladesh Red Crescent Society activated its Early Action Protocol for floods in July-August 2017 and distributed cash to affected people supported by its FbF project. An unconditional cash grant was chosen as the early action to give people the flexibility to prepare individually for the impending flood and take the measures they themselves consider to be appropriate, which ranged from protecting vulnerable assets and fortifying their shelter to evacuation of livestock. The cash grant was distributed based on the trigger that the flood-water level would cross the “Danger Level” as defined by the communities. The post-distribution evaluation revealed that households benefiting from FbF cash were less likely to have to take out high-interest loans, were more food-secure during the disaster period, and less likely to feel stressed or unhappy. In the Asia Pacific region, FbF initiatives are also being developed and/or implemented by Indonesian Red Cross (PMI), Nepal Red Cross Society, Mongolian Red Cross, Philippine Red Cross, Solomon Islands Red Cross and Vietnam Red Cross Society.

Figure 6: Expenditure in focus areas



- Strengthening community resilience

144 DRR projects implemented in 2018 contributed to

strengthening community resilience.

Colombia: [Strengthening resilience](#)

The Colombian Red Cross (CRC) Guajira branch has worked in more than 110 indigenous communities, contributing to the improvement of the quality of life of families. Projects have included emergency assistance in health and water to the communities affected by the drought; strengthening resilience in rural communities; building safer and more resilient communities; mitigating the humanitarian consequences associated with the El Niño phenomenon and other climate variability; and others. In accordance with an agreement signed with the Colombian Institute of Family Welfare (ICBF) Regional La Guajira on 16 December 2017, CRC also provided an initial education service within the framework of comprehensive care pregnant women and children under 5 years old. These projects contributed to the increase of the knowledge and the organizational capacity of the communities, to change in attitudes and improvement of the practices in the face of the challenges of the communities, to the disaster risk reduction and response, water, sanitation and hygiene. They also helped communities improve the supply of safe water, the application of hygiene practices and the protection of the livelihoods of indigenous population, through four lines of work -- water and sanitation, health and hygiene, community management and demonstrative agricultural models. With all these actions, CRC contributed to preventing and alleviating human suffering, installing knowledge and generating communities that are less vulnerable, more resilient and with greater capacity to respond to emergencies.

Mexico: Zurich Flood Resilience Alliance Programme supports communities with alternative family income and livelihood

The Zurich Flood Resilience Alliance (ZFRA) is a cross-sector collaboration between the Zurich Insurance Group, IFRC, Concern Worldwide, Mercy Corps, Plan International and



Practical Action, as well as research partners like the International Institute for Applied Systems and Analysis (IIASA), the London School of Economics, and the Institute for Social and Environmental Transition-International (ISET). ZFRA supports flood-prone communities with alternative family income and livelihood. In Jonuta (Tabasco, Mexico) almost half of the population earns very little, unemployment is high and traditional subsistence activities are in decline. The ZFRA programme conducted the vulnerability and capacity assessment (VCA) in Jonuta and identified two actions to strengthen community resilience by encouraging basic subsistence practices the use of local resources. A project was developed to control the spread of Plecostomus, an invasive species known locally as “devil fish”, thereby encouraging species diversity in the rivers, and transforming the “devil fish” into a product for sale and consumption. Humedales del Usumacinta, a non-governmental organization with expertise in this area, was invited to make recommendations on how to reduce the infestation of Plecostomus and use it as a food source. 18 communities subsequently received training in this regard. The project has brought several benefits to the communities, in terms of their knowledge and skill of controlling and eating Plecostomus and increased income. It has also increased community resilience across several of the ZFRA's sources of resilience capital:

- **Human:** Communities are now aware that Plecostomus is an invasive species and a source of food. Their perception of the “devil fish” has changed because they now consider it a resource.
- **Social:** The training workshops increased social cohesion by convening groups from different communities to share their experiences of managing the species. The project also enhanced equity of participation because people of different ages and genders attended.
- **Natural:** Communities are more aware that Plecostomus control prevents riverbank erosion and protects other fish species.
- **Financial:** The community and individual families stand to gain from commercial sale of Plecostomus.

- Disasters and displacement in a changing climate

IFRC and National Societies actively engage in addressing the displacement in the context of disasters and climate change through various projects and initiatives to prevent, prepare for and respond to it and support recovery and the attainment of durable solutions for those displaced.

Mongolia: [Multi-Level Community-Based DRR to address displacement risk](#)

The Mongolian Red Cross Society (MRCS) is involved in multi-level community-based DRR aimed at preventing the displacement of nomadic herders to urban centres arising from the combined adverse effects of drought and severe

winters (Dzud). At the household level, the MRCS is promoting resilience and reducing displacement through the building of better livestock shelters to prevent winter livestock death. MRCS also encourages herders to stockpile hay and feed for the winter season. At the community level, MRCS has organized groups of up to 11 households to pool resources during the winter months. Other DRR activities have included livelihoods diversification, teaching sewing and barber skills, as well as how to make dairy and leather products to provide alternative livestock-based income streams.



- Using technology in DRR

National Societies make good use of advances in science and technology in reaching more people and applying innovative approaches in DRR.

American Red Cross: [First aid and hazard apps](#)

The Universal App Program (UAP) of the Global Disaster Preparedness Centre of the American Red Cross provides cutting-edge mobile app technology free of charge to National Societies to build first aid awareness by offering high-quality apps to the public in their countries. The programme combines two tools: First Aid app and Hazard app, which are designed to provide efficient and cost-effective access to mobile applications to reach a growing number of people with important life-saving information. Additionally, the built-in features of these apps will enable National Societies to connect with their public, solicit donations and foster partnerships to supporting their own preparedness programs. The **First Aid App** contains easy-to-understand information about how to identify and respond to a range of common first aid scenarios, such as bleeding, heart attacks, choking and burns. The app can be customized to the local languages, includes interactive quizzes, and step-by-step instructions for users to follow in case of an emergency. The **Hazards App** provides preparedness



information for more than 12 types of hazards. National Societies can customize the app according their common hazards in the region and based on their local languages. The app also incorporates emergency alerts from official agencies to notify users of potential threats affecting their location. In 2018 these apps were downloaded and used by 5,175,337 people in 90 countries.

- Partnership in DRR

IFRC and National Societies work in close partnership with Governments and other stakeholders in reducing risk and vulnerability and strengthening resilience.

Pacific: Building partnerships to engage communities in preparedness and early warning systems

Between 2014 and 2016, National Red Cross Societies, communities, governments and regional organizations worked together on a meteorological project to improve the livelihoods of Pacific Island communities by delivering effective weather, climate and early warning services through an “early warning early action” approach. Under the coordination of the Secretariat of the Pacific Regional Environment Programme (SPREP), working together regionally with the IFRC, the Finnish-Pacific (FINPAC) project took an all-inclusive approach by partnering with stakeholders at regional, national, island, community and household levels to develop community early warning systems (CEWS) that were specific to the context and mechanism of each community, thus ensuring that the system and the warning/response information produced were people-centred and well understood. Project partners included the World Meteorological Organization (WMO), National Meteorological Services (NMS) and National Disaster Management Offices (NDMO). CEWS were established in eight Pacific countries. Because of the partnerships approach taken, the FINPAC project has successfully brought together the relevant stakeholders at regional, national, island, community and household levels to develop community early warning systems (CEWS), thus having readied a springboard for continued collaborative work on community-centred climate services and early warning systems in the Pacific. It has become clear that early disaster preparedness action to support communities prior to disasters saves lives and livelihoods and reduce the economic impact on governments.

- Enhancing vulnerability and capacity assessment

Climate-smart DRR projects are designed based on the Vulnerability and Capacity Assessment (VCA) of target communities. Since the first VCA Guide was developed in 1999, IFRC has continued to update it with additional guides and toolbox and by integrating urban and climate risks. Following an extensive review of the VCA guide and toolkit and its application by National Societies, IFRC developed the Enhanced Vulnerability and Capacity Assessment (EVCA) Guidance and Toolbox in 2018, which are available on the [EVCA website](#).

Cross-cutting projects not reported in the 2018 climate-smart DRR mapping but contributing to DRR and CCA

- Meeting the needs of displaced people

Turkey: [Community centres for migrants](#)

The Turkish Red Crescent Society (TRCS) hosts four community centres in Ankara, Istanbul, Konya and Sanliurfa that work to monitor, understand and address the needs of migrants living in the community. Six categories of services are provided: (a) child programmes; (b) adult services; (c) seminars; (d) other psychosocial services (including therapy); (e) referral services; and (f) case tracking and cultural harmonization. To identify which services to provide, staff of the centre regularly visit the communities to consult migrants and learn about their major needs. A programme of cooperation with government actors, including the ministries of education, health and social services, is used to deliver services that address priority needs. Through the project implementation, TRCS has built trust amongst the migrant population, involved the local community in the centre to make it a space for integration and harmonization, strengthened collaboration with the government, and provided an environment where migrants can socialize freely and have their voices heard.

- Community-based health and first aid, psychosocial support and early detection

Jordan: [Community-based health and first aid training programme](#)

The Jordan National Red Crescent Society (JRCS) provides basic knowledge of community health to vulnerable populations in the country including Syrians, Iraqis, and Jordanians. The influx of migrants into Jordan has placed a burden on the health system. Pre-existing conditions, poor living conditions and lack of information contributed to increase health issues among migrant populations. There is limited capacity to manage them at primary health care level. In addition, poor quality housing, overcrowded living conditions and limited access to water are contributing to diseases. To help address these issues, JRCS has implemented the community-based health programme which provides community members with knowledge and skills to improve their understanding of health issues and engage in behavioural change to reduce health risks. Information is also provided to prevent and manage minor health issues in the household, and to understand when and where to seek medical assistance.

Indonesia: Red Cross (PMI) support to address the needs of evacuees

Around 100,000 evacuees fleeing an impending volcanic eruption in Bali, Indonesia were reported to be suffering from fatigue and stress, and from cold and uncomfortable living conditions in their shelters. The Indonesian Red Cross (PMI) provided evacuees with psychosocial support (PSS) along with health awareness and hygiene promotion reaching evacuees across all nine affected districts. PSS activities for children were conducted including “play therapy” and drawing while for women, PMI instigated craft sessions which were also designed to contribute to their livelihood generation and recovery. To complement the PSS activities, PMI established a temporary public library and opened a book donation programme to supplement the book collection, especially books and magazines suitable for children, receiving enormous support from other partners. PMI ensured that protection, gender and inclusion issues were mainstreamed throughout the response by adapting a checklist developed by IFRC to ensure protection, gender and inclusion issues were identified and addressed. A specific PGI expert was deployed to support the mainstreaming of protection, gender and inclusion in all sectors of the PMI operations, as well as building the capacity of PMI chapters and branches to understand and implement PGI approaches.



Uganda: [Early detection, early action prevents DRC's Ebola outbreak from spreading into nearby Uganda](#)

Communities living along the porous borders of Uganda and the Democratic Republic of Congo (DRC) remain at high risk of the spread of Ebola. Thousands cross each day to sell and buy goods, tend to their farm and visit family and friends. Uganda Red Cross (URC), with support from the IFRC has been scaling up its response to help prepare communities and to prevent the spread of the virus. Volunteers are in high-risk areas, sensitizing communities about Ebola – providing information about the virus, what they can do to protect themselves, and screening the thousands of



individuals who cross the border each day. Community engagement through music, drama, and mobile cinemas have also been employed to reach thousands of people. Through URC's extensive network of community-based volunteers, a powerful surveillance system has been set up, in coordination with other actors and the Ministry of Health. This system helps stop the virus' spread, detecting outbreaks before they happen. Well before the community-based surveillance system was launched through the IFRC's Community Epidemic and Pandemic Preparedness Program (CP3), significant coordination was done with stakeholders, including government ministries, health care workers, sectors for animal health, agriculture and environment, development partners, civil society, and the communities themselves. Launched in 2017 with funding from the U.S. Agency for International Development (USAID), CP3 strengthens the ability of communities, National Societies and other partners in 8 target countries to prevent, detect and respond to disease threats and play a significant role in preparing for future risks.

Projects of the International Committee of the Red Cross (ICRC)

The ICRC supports individuals, households and communities to cover their essential needs sustainably and with dignity.

Bangladesh: [Transforming lives and livelihoods](#)

Since the summer of 2014, the ICRC has been working with the Bangladesh Red Crescent Society (BDRCS) to help people in south-eastern Bangladesh earn a living. Two years ago, Abdul Majid was one of the many day labourers in the Khagrachari district who got up early every morning to go door to door searching for work. But all that changed after he received a cash grant of 30,000 Bangladeshi taka (375 US dollars) as part of an economic-security programme to help people living in south-eastern Bangladesh become self-sufficient. Through the programme, the ICRC and the BDRCS provide training and guidance in addition to cash grants that foster agriculture, livestock and small-business initiatives. Then the BDRCS helps them to open a bank account, and staff members monitor their progress to make sure the grants are invested properly. The programme is a message of hope to the communities living in the hills of south-eastern Bangladesh, a region whose abundant natural beauty belies the daily struggle many face with poverty and a lack of opportunities. After the first year of the programme,

participants' average income had already increased by over 20 per cent. By coordinating with and supporting the region's authorities, the ICRC aims to make people self-sufficient over the long term.

Philippines: [Livelihood support reaches 5,000 displaced people](#)

Displaced for more than a year since the start of the five-month conflict in Marawi City, many families in south-eastern parts of Lanao del Sur province continue to struggle due to lack of food and other necessities. The absence of a stable income and capital for small businesses has forced many who were traders before the start of the conflict to rely on farming and fishing. To help 1,007 displaced families in Butig, Lumbayanague, Lumbatan, Masiu and Poonabayabao municipalities earn a livelihood, the ICRC distributed multipurpose cash grants amounting to 8,000 Philippines Peso (150 USD) per family to the most vulnerable displaced families, including those with no or low income, those in the evacuation centres, those with multiple dependents especially young children, pregnant women, the elderly and the sick. Ever since clashes broke out in May 2017, the ICRC, along with the Philippine Red Cross (PRC), has helped hundreds of thousands of people affected by the Marawi crisis. The focus has shifted to the remaining displaced families in Marawi and Lanao del Sur by improving their access to health care and clean water, along with livelihood recovery.



Ethiopia: [Red Cross striving to restore livelihood of pastoralists displaced by ethnic violence](#)

The ICRC, in partnership with Ethiopian Red Cross Society (ERCS), is supporting the Oromia Pastoral Areas Development Commission to help communities displaced by ethnic violence access veterinary services. The programme is supporting 48,000 people in eight localities of Meyu district in the Oromia region of eastern Ethiopia. Twelve people from local communities took part in a three-week intensive training to provide veterinary services. Training included diagnosis, treatment, vaccinations and disease control. The trainees are also provided each with a full kit, containing veterinary equipment and drugs, necessary for the treatment of animal diseases at reasonable prices. A veterinary pharmacy which will supply medicines will also be established soon in an area center to the localities with an aim to make the services sustainable.