



World Food Programme

SAVING LIVES
CHAN GING LIVES

PREP ka na ba? *Are you ready?*

30 initiatives that enabled emergency preparedness and response in the Philippines





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PREP KA NA BA? Are you Ready?

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Preface

Dipayan Bhattacharyya

WFP Country Director, a.i.

It is my pleasure to share with you this compilation of stories and experiences collected by the United Nations World Food Programme as a heartfelt retrospective of our decades-long collaboration with the Government of the Philippines in response to climate, geological, and other hazards.

The Philippines ranks first in the world for natural hazards and exposure risks, according to the INFORM Risk Index. WFP started operations in the Philippines in 1968 and again in 2006 at the request of the Government. The operation has gradually shifted to capacity strengthening through technical support and logistics augmentation of government authorities. WFP works with the Government to assist communities in preparing for and becoming more resilient to shocks. In the event of a sudden onset emergency, for example, WFP augments the national response operation with food or cash assistance to affected people, as well as logistics and telecommunications services to government authorities and humanitarian operators.

Since the early 2000s, WFP has developed a number of policies and strategies that set the overall framework for WFP's work in emergencies and contribute to WFP's emergency preparedness approach. This approach is captured in WFP's Strategic Plans (2017-2021, 2022-2025) which is formulated through global commitments that recognize the need to shift from reactive crisis management to anticipating, preparing for, and responding to emergencies. These commitments include the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda, the Sendai Framework for Disaster Risk Reduction, the Grand Bargain, and the 2015 Paris Agreement on climate change.

Complementing these global frameworks is WFP's country capacity strengthening agenda articulated around the Philippine Government's national development priorities, needs and available resources. Sustainable food security and nutrition solutions encompass enhancing capacity for emergency preparedness and response, logistics, and supply chain management; strengthening risk reduction capabilities through social safety nets; and bolstering climate risk management, adaptation and resilience.

This publication "PREP ka na ba?" collects practices sustained by WFP partners which I hope will contribute to the foundation for future capacity



strengthening activities in the Philippines. On behalf of the organization, I thank our partners, the Department of Social Welfare and Development, the Office of Civil Defense, the Department of the Interior and Local Government and Local Government Units, for the continued collaboration. I thank the U.S. Agency for International Development's Bureau for Humanitarian Assistance, the Department of Foreign Affairs and Trade of Australia and other donors for our powerful partnership and for enabling our mandate. One decade after Typhoon Yolanda, WFP and partners have built a Community of Practice for emergency managers and local government authorities to share, sustain and replicate activities to other LGUs.

In the following pages are the 30 initiatives that reflect our common goal to achieve excellence in emergency preparedness and response in the Philippines.

Preface

Rex Gatchalian
DSWD Secretary

The Department of Social Welfare and Development (DSWD), as Vice Chair for Disaster Response, gives high regard to the Philippine government's partnership with international organizations. Such partnership is one of the major factors that continues to sustain the agency's effective and efficient disaster response operations.

One of DSWD's distinguished partner-institutions is the World Food Programme (WFP) which provided assistance through capability building and logistical support, with the mechanized production system being one of its most notable contributions to the Department.

The WFP has also been a reliable partner of the Department in terms of providing social

protection programs and initiatives to assist disaster-affected individuals and families start anew and lead normal lives. These stories of rising from the aftermath of a disaster are showcased in this Coffee Table Book (CTB) on emergency preparedness and response (EPR).

On behalf of the DSWD, I would like to extend my heartfelt congratulations to the WFP for the successful completion of this timely and useful publication.

May this Coffee Table Book serve as an inspiration and vital reference for national government agencies, local government units, other international organizations, members of the academe, and other stakeholders on significant services, interventions, and mechanisms in the



implementation of various disaster risk reduction and management programs, projects, and activities in the Philippines.

Rest assured that the DSWD will continuously support the WFP's advocacies and endeavors to build disaster-prepared and resilient communities around the country.

Preface

Sarah Charles

USAID Assistant to the Administrator of Bureau for Humanitarian Assistance

It's been a decade since Super Typhoon Yolanda—known internationally as Super Typhoon Haiyan—struck the Visayas region with such force that it remains one of the strongest tropical cyclones to make landfall in the Philippines. I was serving as the National Security Council's Humanitarian Assistance Director when the storm struck, working around the clock to support the U.S. government's response to the typhoon. I remember how communities in the hardest hit barangays worked to recover and rebuild their lives after the worst cyclone to hit their nation in recent memory. Years later, I had an opportunity to travel to the Philippines following Super Typhoon Odette—known internationally as Super Typhoon Rai—where I saw with my own eyes the destruction these storms can bring but also the strength and resilience of the Filipino people—and critically the investments made in the intervening years to help people prepare for and recover faster from disasters.

When Yolanda made landfall in 2013, the United States immediately responded. USAID deployed

a Disaster Assistance Response Team to lead our country's response, and the U.S. government provided nearly \$91 million in humanitarian aid. In the 10 years that ensued, we have continued to support the Philippines with increasingly locally led responses as they faced recurrent threats, such as typhoons, and endured the impacts of climate change, which have fueled these storms to new levels of severity and frequency.

In total, USAID has responded to more than 50 disasters in the Philippines since 1990, including multiple earthquakes, typhoons, and volcanic eruptions. This is a big reason why, in addition to providing humanitarian aid, USAID's Bureau for Humanitarian Assistance supports disaster risk reduction and resilience programs that help the Philippines prepare for and be more resilient to future disasters.

USAID's ongoing partnership with the UN World Food Programme (WFP) in the Philippines provides a great example of this work in action. For the past 12 years, with our support, WFP has worked closely with the Government of the Philippines to strengthen the capacity of local and national authorities to prepare for and respond to disasters, including through the efficient distribution of emergency food assistance and critical relief items to disaster-affected communities across the country. These efforts were successfully put



to the test after Super Typhoon Odette struck in December 2021, and WFP reinforced the Philippine government's response efforts. WFP established logistics hubs to facilitate relief operations, bolstered telecommunications among first responders, and deployed more than 660 trucks to transport critical commodities on behalf of the Government of the Philippines to affected areas.

As the impacts of climate-related disasters become more devastating, enduring, and costly, investments in disaster risk reduction programs such as USAID's partnership with WFP are critical to supporting countries and communities at greatest risk. Not only do they save lives, they also empower local groups and communities to respond to today's challenges while preparing for tomorrow's threats.

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Introduction

The World's Highest Disaster Risk

The Philippines is the world's most disaster-prone country according to the 2022 World Risk Index. The country is exposed to multiple hazards, including typhoons, floods, earthquakes, landslides, mudslides, volcanic eruptions, droughts as well as sea level rise. Every year, the Philippine archipelago of over 7,100 islands experiences on average 10 to 25 disaster events. An average of 20 tropical cyclones enter the Philippines every year with 8 to 9 storms making landfall. Roughly 900 earthquakes are recorded annually. Strong periodic droughts affect the country due to the El Niño Southern Oscillation.

The Philippines is among the countries most vulnerable to climate change. Except for geologic hazards (earthquakes and volcanic eruptions), the multiple natural hazards affecting the Philippines are projected to intensify as the climate changes. The increase in the number of hot days is set to continue with average temperatures projected to increase by up to 3.1°C by the 2090s, having significant negative impacts on the viability of

ecosystems, health, labour productivity, livestock production and crop yields.

From Typhoon Yolanda to Typhoon Odette

Ten years ago, on 8 November 2013, Super Typhoon Yolanda (known internationally as Typhoon Haiyan) hit the Philippines. One of the most powerful typhoons ever recorded, it devastated much of the country and especially the eastern landmass of Leyte. Responsible for more than 6,000 deaths and damage totaling US\$2.2 billion (PHP 95.5 billion), it was the deadliest and most expensive storm in the Philippines' recent history.

Eight years later in 2021, another Super Typhoon called Odette (known internationally as Rai) brought similar torrential rains, violent winds, mudslides, floods, and storm surges to central parts of the Philippines, leaving a wide path of destruction and debris in its wake. More than 400 people died in the aftermath of Typhoon Odette. While not as powerful as Haiyan, it damaged houses, infrastructure, and livelihoods on a comparable scale.

One bright spot amid Odette's destruction was the significantly lower number of casualties, which was primarily attributed to pre-emptive measures undertaken by communities and authorities. Indeed, much progress has been achieved in emergency preparedness and response in the span of a few years. After Yolanda, the national and local governments, as well as the humanitarian community, multiplied their initiatives to protect communities from natural hazards throughout the country.

A Decade of Progress in Philippine Emergency Preparedness and Response

2010 was a landmark year for emergency preparedness and response in the Philippines. That year, the Philippines' Disaster Risk Reduction and Management Act (Republic Act 10121) was passed, providing a comprehensive, all-hazard, multi-sectoral, inter-agency, and community-based approach to disaster risk management, including through the creation of the National Disaster Risk Reduction and Management Council (NDRRMC), a coordinating body composed of around 45 government institutions authorized to craft policies as well as integrate, supervise, monitor, and evaluate disaster-related operations in the country. Republic Act (RA) 10121 mandated the establishment of a Disaster Risk Reduction and Management Office in every province, city, and municipality, and a Barangay Disaster Risk Reduction and Management Committee in every

barangay and provided for the calamity fund to be used in support of disaster risk reduction or mitigation, prevention, and preparedness activities for the potential occurrence of disasters and not just for response, relief, and rehabilitation efforts.

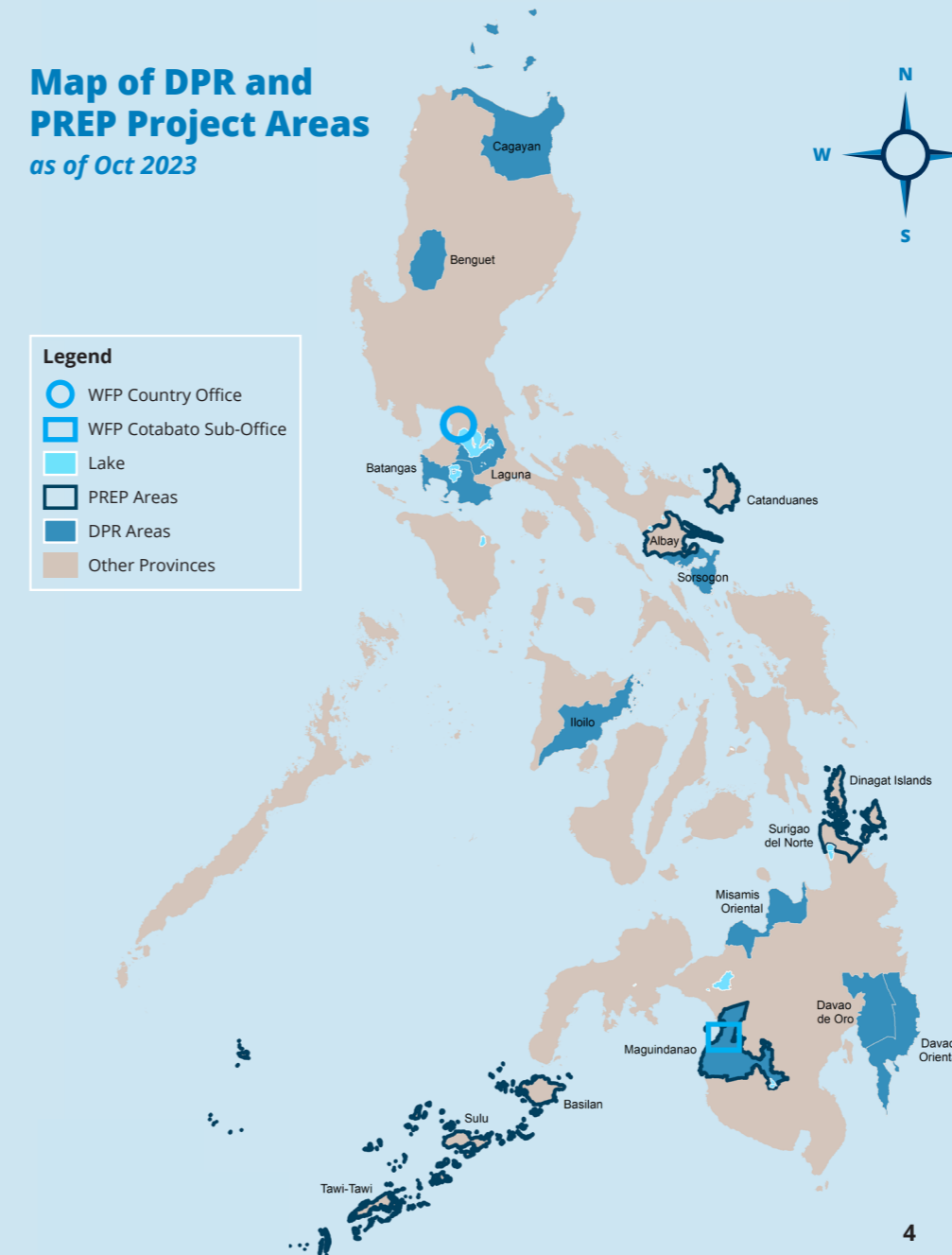
In 2011, WFP in the Philippines initiated the Disaster Preparedness and Response and Climate Change Adaptation (DPR-CCA) Project, to assist the Government in strengthening the capacities of provinces, cities, and municipalities that are highly at-risk to hazards and disasters. WFP worked with agencies of the national Government, Local Government Units and communities, academic institutions, and Non-Governmental Organizations to support the implementation of RA 10121. With the support of the United States Agency for International Development (USAID), the DPR-CCA Project was implemented from 2011 to 2017.

The DPR-CCA Project supported many local governments to set up strong DRRM systems. The project supported initiatives that were demand driven, with LGUs proposing projects that they would take on in disaster prevention, mitigation, preparedness, and climate change adaptation (CCA); and contributed funds that served as their local counterpart to the Project. WFP also directly implemented a series of training courses or engaged partner NGOs, academic and training institutions. This included training sessions to

develop Local DRRM Plans, Local Climate Change Adaptation Plans, the integration of DRRM and CCA in formulating the Comprehensive Land Use Plans, Community-Based DRRM Plans, and the formation of the Incident Command System, among others.

Ten years after Typhoon Yolanda, and over a decade following the enactment of Republic Act 10121 and the commencement of the DPR-CCA project, this publication looks back at 30 initiatives that have successfully improved emergency preparedness and response in the Philippines. It serves as an inspiration and signpost for WFP's continued collaboration with government authorities, partners, and communities in strengthening Preparedness and Response Excellence in the Philippines (PREP). Launched in 2023, PREP is a multi-year initiative to make national and subnational preparedness systems more efficient with greater interaction between administrative levels and among government departments. PREP improves foresight, streamlines digitalized processes, and invests in climate-proof infrastructure for faster response to the needs of the most vulnerable. PREP is implemented in partnership with the USAID's Bureau of Humanitarian Affairs (BHA) and the Department of Foreign Affairs and Trade of the Australian Government.

Map of DPR and PREP Project Areas as of Oct 2023



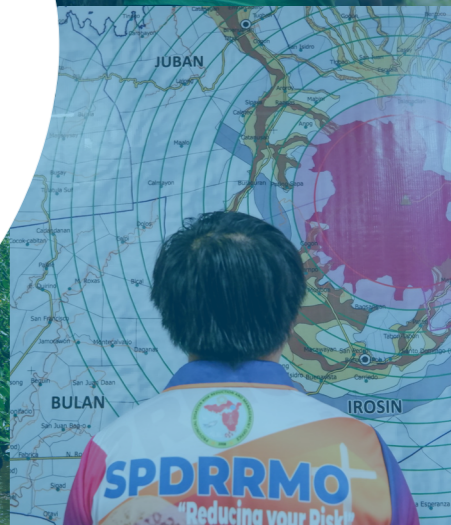
WFP in the Philippines

The World Food Programme (WFP) first started working in the Philippines in 1968 and re-established its presence in the country in 2006 at the request of the Government to support the ongoing peace process in the Mindanao region. Since then, WFP has been supporting the Government of the Philippines in its emergency preparedness and response to natural hazards and conflict, while gradually shifting to capacity strengthening through technical support and augmentation of the logistics and telecommunications capacity of government authorities.

Today, WFP supports the Government in strengthening emergency management capacity and resilience through food and nutrition security, reducing malnutrition among children, and improving access to income-generating activities for the rural poor and other groups vulnerable to food insecurity, in line with Sustainable Development Goal 2 – Zero Hunger.



30 Stories





I. Policy and Laws

This section refers to examples of overarching policy or legal instruments in the field of emergency preparedness and response which have been endorsed or developed in alignment with the national policy context in the Philippines. These instruments outline the importance of emergency preparedness and response, objectives, roles and responsibilities, and other key considerations.



Awards that encourage good governance

In the Philippines, two awards delivered by the Government recognize and encourage good practices in disaster preparedness: the Seal of Good Local Governance and Gawad KALASAG.

The Philippine national Government passed the Seal of Good Local Governance (SGLG) Law in 2015 to incentivize compliance to best practices on good governance and better service delivery at local level. The SGLG has 10 governance areas of assessment. One of them is disaster preparedness with 15 key indicators.

Local Government Units that fulfill all 10 areas are called SGLG passers and they receive a performance grant to implement a specific project. For municipalities, amounts vary depending on their income class category. From 2015 to 2019, 17 municipalities, 2 cities, and 9 provinces that partnered with WFP have received the coveted award.

When Tublay municipality obtained the SGLG for

its risk governance leadership, it used the grant to further improve its disaster preparedness. *"We became an awardee of SGLG, so we received funds from the grassroots bottom-up budgeting (BUB) which we used to implement the national greening program, with arabica coffee as the main plant species,"* says Sharmaine Vicente, the incumbent Tublay Local Disaster Risk Reduction Management (DRRM) Officer. Beyond being a new source of income for farmers in the municipality, coffee plantations improve soil stabilization through increased vegetation.

Another major award is Gawad KALASAG. *Kalasang* is the Filipino term for "shield" used by early Filipinos as a means of protection from attacks of enemies or harmful animals. Relatedly, Gawad KALASAG was conceived to protect or shield high-risk communities against hazards by encouraging

participation of various stakeholders in designing and implementing disaster risk management programmes.

The Gawad KALASAG aims to recognize outstanding performances of local disaster coordinating councils, private/volunteer organizations, local, national, and international non-governmental organizations, donor agencies, and the communities as major stakeholders in implementing significant disaster risk management projects and activities, as well as in providing humanitarian assistance to affected communities. It also aims to recognize individuals, groups or institutions that have shown extraordinary courage, heroism, self-sacrifice, and bravery in times of natural and human-made emergencies and disasters.



2

BEKAS: Community involvement as a “non-negotiable” policy

In Benguet, an ordinance passed in 2023 institutionalized the Barangay Extension and Knowledge Advocacy for a Safe and Resilient Benguet (BEKAS). This local policy enables the Provincial Disaster Risk Reduction and Management Office (PDRRMO) to engage barangay climate and disaster extension workers. ‘BEKAS,’ a local term for “strength,” resonates with the grassroots approach of Abner Lawangen, Provincial DRRM Officer of Benguet. This approach maximizes the experience of the community by including them in all steps of the disaster prevention and response and recognizes the significant role that volunteers play at all stages of disaster risk management.

Abner Lawangen, was the Municipal DRRM Officer of Tublay when WFP started its project back in 2011. In September 2021, he was appointed Provincial DRRM Officer of Benguet. He is now leading the provincial efforts towards better disaster preparedness, response, mitigation, and recovery.

“Community involvement is non-negotiable,” said Lawangen when WFP interviewed him in 2018. Today, as PDRRM Officer, he places local communities at the heart of reducing vulnerabilities to disasters, explaining that *“When people do not understand; when there is no genuine bottom-up process, there will be no buy-in.”*

With this approach, it is not surprising that PDRRMO Lawangen advocated for the passage of BEKAS in Benguet. In 2023, the Provincial Council passed Ordinance No. 2023-315 establishing Barangay Extension and Knowledge Advocacy for Safe and Resilient Benguet (BEKAS). This is a local policy institutionalizing barangay climate and disaster extension workers in all barangays of Benguet. They are registered to support the extension activities of the PDRRMO before, during and after emergencies. In exchange, they receive a monthly allowance of PHP 1,000 and an insurance coverage through PhilHealth. They are trained on

community-based disaster risk management, risk communication, damage and needs assessment, and evacuation centre management.

Bekas is a local term for strength; hence, it was conceptualized to showcase the collective strength of stakeholders. BEKAS resonates with the grassroots approach on disaster risk reduction and management and recognizes the key role that volunteers and extension workers play.





II. Institutional Capacity

This section contains examples of institutional structures and capacities in the Philippines. This includes management and coordination, leadership, and staffing and assets support. Increased institutional capacity enables effective, efficient, and accountable preparedness and response mechanisms.



3

Institutional structures serve as Emergency Operations Centers

Many municipalities significantly improved their emergency preparedness and response capacity by acquiring their own building and establishing their own Emergency Operations Center (EOC). As part of WFP's support, 40 Emergency Operations Centers were established over the past decade, including in Juban, Irosin, and Prieto Diaz.

The municipality of Juban lies north of Sorsogon Bay and south-west of the Bulusan Volcano, one of the two active volcanoes in Bicol Region. Being on the path of Cadaac-an River Basin, in the Irosin-Juban Valley, Juban is a catch basin for Bulusan Volcano. It is therefore one of the most at-risk municipalities in the event of volcanic eruption from Mount Bulusan.

Juban's Emergency Operations Center was inaugurated in 2015 and is one of the 40 centres established with WFP's support over the past 10 years. The center is equipped with necessary response equipment and tools, including life vests, ropes and spine boards, and transportation assets like motorbikes and a fiber boat.

Arvee Lodronio, one of Juban's Local DRRM Officers, shared that "without WFP, our operations center would not have been established. The equipment is being used until today." In Juban, preparedness has become a way of life that the municipality instills through its popular tag line "Jubangnon na preparado harayo sa piligro – a prepared Jubangnon is away from risk."

Having a building dedicated to emergency and response was the first step to improve emergency preparedness and response structures and systems throughout the country.

"More than just setting up a physical space, the Emergency Operations Center made DRRM visible

to the public and decision-makers," explains Fritzie Michelena, Municipal DRRM Officer of Irosin.

In Prieto Diaz, the physical space made DRRM visible to the public and to decision-makers, recalls Roderick Domasig, the Municipal Planning and Development Coordinator. "It was easy to identify which office to go to. Because the office was there, our equipment was also ready. We also started basic response training and formed the response team of the municipality."



From 0 to 27: the municipality of Prieto Diaz has now a full team of experts

When the Philippine Disaster Risk Reduction and Management Act (Republic Act 10121) was newly enacted in 2010, many municipalities did not have staff dedicated to disaster risk management. In only one decade, local and provincial disaster risk management teams have grown in number and capacity. The municipality of Prieto Diaz is one of the examples.

“When WFP started the project, we did not have any personnel, office, or capacity. The Prieto Diaz Local Disaster Risk Reduction Management (DRRM) Office now has 27 personnel, with 4 permanent staff and 1 designated staff,” tells Ricky Dumasig, the Municipal Planning and Development Coordinator (MPDC). Prieto Diaz is not an isolated case. All around the Philippines, local and provincial disaster risk management teams have consistently grown in staff number and capacity.

In Prieto Diaz, the Municipal (DDRM) Office was under the Office of the Mayor when the programme started. Due to budget ceiling limitations faced by the municipality, the office

could not create new positions for DRRM. To address this limitation, the Mayor created a new DRRM position under his own office. The support of the former mayor was critical in gaining the approval of the *Sanggunian* (municipal council) to create the Civil Defense Officer II post, and the department heads agreed to transfer personnel positions to the new office.

Prieto Diaz is now headed by a Municipal DRRM Officer with a Department Head rank and with mandated permanent DRRM personnel positions. DRRM is increasingly being regarded as not just the role of Local DRRM Officers, but an interagency collaboration.

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The Prieto Diaz Local Disaster Risk Reduction Management (DRRM) Office now has 27 personnel, with 4 permanent staff and 1 designated staff.





5

In Laguna, skills built the foundation of strong institutions

Emergency preparedness and response require many skills – from water search and rescue, rope training, camp management and coordination, damage assessment and needs analysis, to geographic information systems. When WFP started the disaster preparedness project in Laguna and elsewhere, building skills was the first step towards institutional capacity with strong management and leadership. A decade later, Laguna has become a reference for well-functioning disaster risk reduction institutions.

Laguna province is regularly hit by typhoons and flooding and faces developmental challenges such as rapid urbanization and environmental degradation. In 2010, the Provincial Disaster Risk Reduction and Management Office (PDRRMO) was established to improve emergency preparedness and response across the province.

A nurse by training, Aldwin Cejo was one of the only three Provincial DRRM staff when WFP's DPR-CCA programme started. He is now the officer in charge. He recalls the long path accomplished over the past decade and says that "before, we only had an office desk."

Through his predecessor's advocacy, they were able to make emergency and preparedness a priority for

the province. "I was part of the contingency planning and evacuation management discussions that WFP facilitated," tells Cejo. Through the programme, various trainings were conducted, including on camp management and coordination, damage assessment and needs analysis, geographic information systems, and simulation exercises. WFP also provided emergency response trainings such as water search and rescue and rope training.

"The disaster preparedness and response skills built during the implementation was the province's foundation for a streamlined response system," explains Cejo. "After our training on logistics and warehouse management with the Department of Social Welfare and Development (DSWD), the PDRRMO eventually set up its own warehouses, containing

response kits, response equipment, and medical supplies that are regularly used and distributed during disasters, especially during COVID-19."

Today, national authorities regularly tap Laguna personnel as resource persons for various disaster risk reduction and management trainings in and outside the province – including the Office of Civil Defense (OCD) and the NDRRMC.

Thanks to the hard and consistent work that started a decade ago, with a modest office and a single desk, Laguna has now become a reference in disaster risk reduction and management.





6

The road to methodical response systems in Mabitac

In 2022, the municipality of Mabitac was awarded the Gawad KALASAG Seal of Excellence, recognising its outstanding performance in emergency preparedness and response. Considerable ground has been covered since 2009 when Typhoon Ondoy tragically hit Mabitac. At the time, the municipality did not yet have systematic disaster preparedness and response systems in place. Now, its institutional capacity has become an example of resilience and readiness.

In 2022, the National Disaster Risk Reduction and Management Council (NDRRMC) awarded the Gawad KALASAG Seal of Excellence to the municipality of Mabitac. In the same year, Mabitac also passed the Seal of Good Local Governance in recognition of its institutional capacity.

Mabitac has come a long way since Typhoon Ondoy severely hit the municipality in 2009. Back then, the municipality did not have systematic disaster preparedness and response mechanisms in place. Eyewitnesses recount floodwaters being stagnant

for three months and residents struggling for their life. Nine rescuers died during Typhoon Ondoy.

After Typhoon Ondoy, the municipality identified their capacity gaps and proposed activities with the support of WFP, its NGO partner Philippine Business for Social Progress and University of the Philippines Los Baños. Mabitac and WFP conducted a series of capacity-building activities, involving first department heads to gain their support, and then the barangays.

Contingency planning was a particularly important exercise for Mabitac, as it made their disaster preparedness and response systematic and organized. *“We have so far developed contingency plans for floods, landslides and earthquakes,”* tells Manny Artichea, current Municipal DRRM Officer. *“We regularly test the contingency plans through simulation exercises.”*

In 2013, the municipality developed risk communication and coordination protocols. The protocols guide the emergency and disaster

“

We have so far developed contingency plans for floods, landslides and earthquakes. We regularly test the contingency plans through simulation exercises.

communication between the municipality and the barangays and are therefore integral to the functioning of the Emergency Operations Center (EOC). It outlines the workflow and chain of actions for the flood warning advisory messages, transmission medium, and tasks assigned to various DRRM actors. Advisory comes from transmitted data from Automatic Weather Stations (AWS), set up by UPLB and WFP, as well as other sources such as PAGASA advisories.

Manny Artichea credits the continuing growth of the DRRM Office to the municipality's political leadership over the last decade, and the advocacy and mentorship of its former Municipal DRRM Officer Norbert Tubana. The opportunities and skills he gained during the programme have

improved his leadership and confidence. Artichea was promoted from LDRRMO II in 2019 to LDRRMO IV (Assistant Department Head) in 2022. The Municipal DRRM Office counts five permanent staff, including two designates from other offices.

In 2023, Manny Artichea completed all levels of the Incident Command System training programme. As a result, he was certified by the Office of Civil Defense, Region IVA, as a member of the small but growing ICS National Cadre of Instructors. A DRRM Officer needs to complete the ICS training programme that consists of its Basic ICS Course, the Integrated Planning Course, the ICS Position Course Training, and the All Hazards Incident Management Training to join the cadre.





Emergency search and rescue in La Trinidad: from trainees to trainers

In 2016, volunteers from La Trinidad participated in a training course organized by WFP to improve their rescue and response operations skills. In the same year, the municipality formed its own Accredited Disaster Volunteers group, which became accredited by the Office of Civil Defense Cordillera to conduct mountain and water search and rescue training courses for other municipalities and provinces.

Emergency Response Teams are composed mostly of volunteers who are on-call 24/7 to come to the rescue when needed. Teams include men and women of all ages. To be able to assist their communities during an emergency, the volunteers need special training to have the required skills in rescue and response operations.

In 2016, with WFP support, La Trinidad implemented an Emergency Responders Course with over 80 participants. La Trinidad in Benguet is highly exposed to landslides, flooding, and geologic hazards.

The municipality did not stop there. It went the extra mile and organized La Trinidad Accredited Disaster Volunteers (LTACDV) for its trained volunteers to become trainers. Soon after, they received the accreditation from the Office of Civil Defense Cordillera to conduct Mountain and Water Search and Rescue training courses.

In 2017, La Trinidad accredited volunteers started to provide trainings to other responders, including in the Benguet towns of Bokod, Kapangan, Sablan, and Kabayan and as far as Abra Province. The LTACDV also trained the Armed Forces of the

Philippines and the Philippine National Police in the Cordillera Administrative Region.

"You do not need to be a first-class municipality to do this. We need political will," said Yoshio Labi, Municipal DRRM Officer. *"All LGU funds are in fact DRRM funds; all expenses by the local government should improve preparedness and response in the municipality."*



33



34



Accessible municipal evacuation centre in Juban

In 2018, the municipality of Juban built its own evacuation centre to further improve its disaster preparedness and response capacity. The evacuation centre follows the standards set by the National Disaster Risk Reduction and Management Council, and include nursing stations, an infirmary, and child-friendly spaces.

In 2018, Juban constructed its purpose-built municipal evacuation centre, which can accommodate a maximum of 200 persons. Facilities include separate toilet and shower facilities for men and women, breastfeeding rooms, and a clinic for triage. Family tents are also available. The facility was extensively used during the COVID-19 pandemic.

Having a dedicated evacuation centre is critical for Juban's Quick/Emergency Response Team (JQERT). Over the past decade, they had to protect Juban's residents from major disasters like Typhoon

Yolanda in November 2013, Typhoon Glenda in July 2014, Typhoon Nona in December 2015, Bulusan Volcano eruptions in 2016, Tropical Depression Usman in December 2018, Typhoon Tisoy in December 2019, Typhoon Rolly, Ulysess and Quinta in 2020 and the COVID-19 pandemic. The team has grown from 10 members and volunteers in 2014 to 24 as of today.

The evacuation centre complements Juban's Emergency Operations Center-Warehouse, which was inaugurated in 2015. This facility was equipped with all necessary response equipment and tools

for response, including life vests, ropes and spine boards, and transportation assets (including a single motorbike and a boat).

According to Juban's Municipal DRRM Officer-in-Charge Arian Aguallo, "Juban is a role model when it comes to camp coordination and management. We have allocated funds from the DRRM budget to rehabilitate the evacuation centre after its heavy use during the pandemic. We want to be compliant to the Joint Memorandum Circular 2 Series of 2021 on setting up camp coordination teams and evacuation committees."



9

FLEX: a simulation exercise to improve emergency logistics capacity

“Earlier this morning at 07:01 am, a 6.9 magnitude earthquake struck Marikina City. Widespread structural collapse of buildings, residences, roads, and bridges trapped its occupants underneath the rubble.” This was the start of the 5-day “Field Logistics Emergency Exercise” (FLEX), designed for 55 participants from the Philippine Government, UN agencies, NGOs, and the private sector, to test and improve the national logistics capacity.

In 2019, WFP organized a simulation exercise called FLEX, to provide a hands-on training in humanitarian logistics to participants from the Philippine Government, UN agencies, NGOs, the Red Cross Movement, and the private sector. The simulation was designed to cover the response phases starting 24 hours after the earthquake hit.

Participants had to work together to coordinate the logistics efforts after a 6.9 magnitude earthquake had struck Marikina City, causing widespread structural collapse of buildings, residences, roads, and bridges.

It is difficult to fully grasp the effects of such an earthquake. The Harmonized Contingency Plan for

the West Valley Fault Earthquake estimates that in the worst scenario, such an earthquake could result to casualties and the destruction of light residential buildings. A significant percentage of roads and bridges would not be passable. Likewise, the National Capital Region would have limited access to lifeline utilities.

“It was like a real-life emergency. We had to identify a place where we could set up a humanitarian hub, and decide how many mobile storage units to install,” recalls Irish Flor Yaranon, Chief Administrative Officer of the DSWD’s Visayas Disaster Resource Center. “We also went to a government warehouse with emergency relief items, and we had to calculate

what they could store there based on the arrivals sitting at the airport.”

“It was very beneficial to have participants from the Government and other emergency actors,” says WFP’s Logistics Associate Carlo Buning. “It tested our ability to work together effectively, share information, and make coordinated decisions. And it also pointed out the areas where improvement was necessary.”



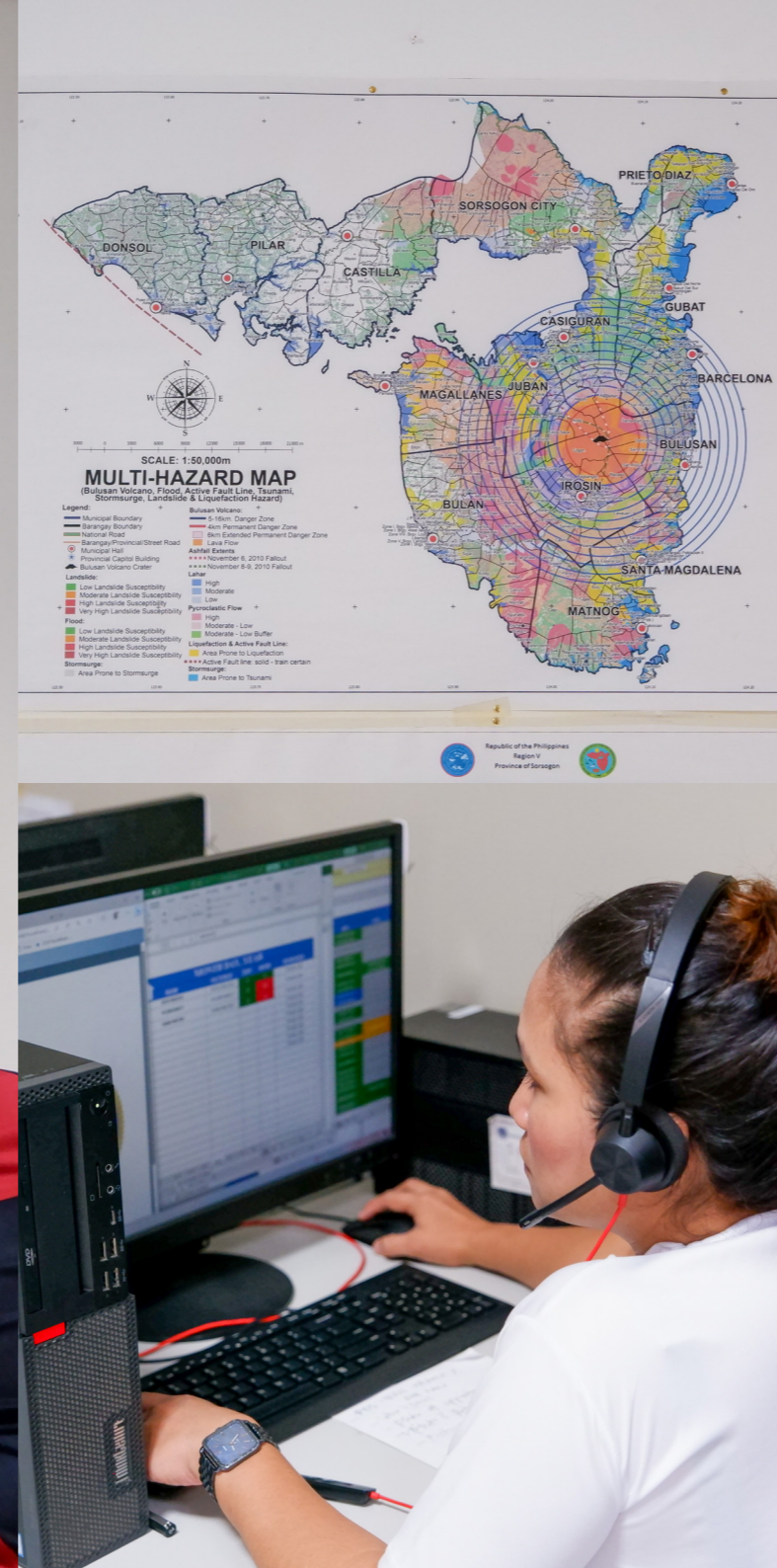
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It was like a real-life emergency. We had to identify a place where we could set up a humanitarian hub, and decide how many mobile storage units to install.



III. Strategic Planning and Financial Capacity

This section contains examples of endorsed strategies and costed action plans which ensure the maintenance and institutionalization of emergency preparedness and response mechanisms. To the extent possible, strategic planning and financial capacity is innovative, reliable and stable. It is allocated and distributed effectively and efficiently.



10 The power of data in Sorsogon

To swiftly assess the magnitude of the damage after a disaster and the needs of local communities, Sorsogon developed a digital directory and geotagging of vulnerable households living across its 64 barangays. With this database available, the city can visualize quickly how many families are living in affected areas to inform strategic and operational decisions on what assistance should immediately be dispatched.

One of the most pressing challenges for governments and humanitarian organizations after the onslaught of a disaster is to assess the magnitude of the damage and the needs of local communities.

In 2023, Sorsogon City completed the Enhanced Barangay Household Inventory and Directory Assessment (E-BHIDA), a detailed directory and geotagging of households vulnerable to emergencies across its 64 barangays. The E-BHIDA is a decision-making tool for the City Disaster Risk Reduction and Management Office and the City Government for preparedness and planning and for prioritization in emergencies.

The Province uses Geographic Information Systems (GIS) to visualize information and data such as population, livelihoods, and housing in the most affected areas. Several data sources are used, including data from the Philippine Statistics Authority (PSA) and the Rapid Community-Based Management System. The Provincial DRRM Office completed its 2D hazard maps using open-source software.

The Province is also conducting on-demand training for municipal hazard mapping in the province, building on GIS training provided by WFP. Not all municipalities have similar levels of GIS capacity, or available population disaggregation at

the barangay level. Sex-age disaggregation can help the municipality plan their preparedness and response better, such as managing evacuation and allocation of spaces.

As a next step, Sorsogon aims to use more advanced GIS capacity that is capable of 3D modeling and to partner with DSWD to use the *Listahanan*, also known as the National Household Targeting System for Poverty Reduction, or the Community-Based Management System, to access more data.



// Urban planning is key to preparedness in the coastal municipalities in Misamis Oriental

In Misamis Oriental, where communities living by the coast are particularly exposed to floods and storm surges, good emergency response capacity is not enough. Some municipalities are rethinking their urban planning approach to ensure the safety of all residents, for example by implementing No-Build-Zones (NBZ).

The municipalities of Medina and Balingoan are located just between the Bohol Sea and Mount Balatukan volcano in Misamis Oriental. This unique location makes them exposed to multiple risks. Upland areas in the mountain are vulnerable to rain-induced landslides and strong winds, while lowland areas by the coast are exposed to floods and storm surge. Between 2019 and 2022, coastal municipalities in Misamis Oriental also grappled with the impacts of a shear line, a weather disturbance phenomenon that led to heavy rainfall and flooding displacing thousands.

For the past decade, the municipalities have made considerable progress in emergency preparedness

and response to address these multiple threats. From crafting Disaster Risk Reduction and Management (DRRM), local climate change, and contingency plans for flood and rain-induced hazards, Medina constructed its first Emergency Operations Center with support from WFP. Medina was one of the first from the WFP programme partners in Misamis Oriental that rolled out the community-based DRRM training to their barangays.

“Our capacity for response has gotten better, but we can still improve our technical capacity for disaster prevention and mitigation,” claims Raul P. Soriano, Jr. Medina’s Municipal DRRM Officer. With increasing

threats from climate-induced hazards, Medina and Balingoan share the same priority to focus more on prevention and mitigation.

“In Medina, we are working to update the land use plan, and to implement No-Build-Zones in the most disaster-prone areas,” expressed Jennifer Dangga, Medina’s Municipal Planning and Development Coordinator. With bilateral support, Medina is building on a project about Responsible Land Governance, which was implemented through the Department of Environment and Natural Resources (DENR), to foster dialogue about the responsible management of the common coastal and marine ecosystems. Through this project, the municipality

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Our capacity for response has gotten better, but we can still improve our technical capacity for disaster prevention and mitigation.

is using an integrated approach to land use and management, as well as biodiversity and ancestral domains.

Similarly, Balingoan has been investing in land banking to resettle communities located in hazardous areas or living by the coast. An example is the area named Payatas, flooded during the recent shear line. The municipality has earmarked 2 hectares where communities from Payatas can be resettled. Balingoan plans to integrate housing as well as a communal garden area for organic farming and water impounding. These initiatives were discussed during the formulation of the Local DRRM Plan and have been presented for approval to the municipal council.





Better waste management reduces flooding in Mabitac

In one decade, the municipality of Mabitac has reduced solid waste pollution in its rivers, which successfully reduced flood occurrence. Along with many initiatives, the municipality encouraged river clean-up by giving 1 kilo of rice to residents who were able to collect 60 kilos of plastic waste.

Mabitac, a small municipality in Laguna, is located along Laguna de Bay and sits at the foot of the towns of Santa Maria, Laguna and Pililla, Rizal, thus, making it a flood-prone area.

Residents of Mabitac recount that, a few years ago, floodwaters were sometimes stagnant for months. Affected populations did not know what to do to prevent or mitigate these events. But over the course of a decade, the municipality of Mabitac managed to considerably decrease flooding events, primarily thanks to the reduction of solid waste pollution in its rivers.

Less than a decade ago, Mabitac's rivers had served as dumping sites for household waste. With WFP's support, the municipality used positive approaches over punitive measures to encourage residents to dispose of their waste properly. During the first three months of the river clean-up campaign in each barangay, residents who were able to collect 60 kilos of plastic waste were given 1 kilo of rice.

Along with these efforts, information campaigns on waste management were also held in all barangays, and skills-training seminars were conducted to improve waste recycling and encourage the development of products for sale, using trash and

discarded materials. Livelihood activities of some families and women in the communities evolved. Equipment such as shredding machines, briquette machines, and hollow-block makers were provided.

The results of the flood mitigation strategies have been significant. Flood occurrences during typhoons and rainy season have been reduced. Flooding time dropped to two to three hours as opposed to three to five days in previous years. The municipality passed municipal ordinances on solid waste management and is now focusing on encouraging households to sort waste directly at home.





IV. Mechanism Design and Capacity

*T*his section contains examples of design and preparedness measures which are aligned with the Philippines' national emergency preparedness and response objectives, as well as with identified risks. Thanks to mechanism design and delivery, the implementation of response functions is sustainable and ensures that critical aid gets to those who need it.



Coffee plantations provide livelihoods and reduce disaster risk in Tublay

The municipality of Tublay has effectively mitigated disaster risks while simultaneously establishing sustainable livelihoods through coffee cultivation. The coffee plantations created a decade ago have improved soil stabilization through increased vegetation and have become a new source of livelihood for farmers in the municipality.

Like many municipalities in Benguet, Tublay is regularly affected by typhoons, intense winds, and heavy rains. Their occurrence has had devastating effects on housing, agriculture, and the lives and safety of its residents. These events trigger recurrent landslides, damaging roads, power lines, and agricultural infrastructure.

One of Tublay's approaches to mitigate disaster risks stands out: growing coffee to address soil erosion, while creating a sustainable livelihood supplement for its communities.

Planting coffee was not new to Tublay's farmers. The people of Tublay have a traditional coffee drinking culture. Often, families had 5 to 10 coffee trees in their backyard. However, what was unique about this initiative was the idea of growing coffee on a scale that could eventually become a source of livelihood for the municipality.

The first coffee nursery created as part of a WFP-supported programme was in Sitio Coroz, Ambassador Barangay. Years later, Tublay's coffee plantations are thriving and have expanded to many other sites, with other non-government

organizations supporting the coffee associations. The coffee plantations are being maintained by the associations and have so far benefited more than 1,000 farmers. Coffee beans can be stored for a long time, so they complement the farmer's existing vegetable production.

"We are proud of our plan to grow coffee both as a business venture, as well as a way of addressing soil erosion. Our plan has been successful so far," says Abner Lawangen, who is now Benguet's Provincial DRRM Officer, after being Tublay's Municipal DRRM Officer.





Anticipatory Action: cash assistance before a typhoon hits

WFP has collaborated with the Government of the Philippines and other organizations to put in place a programme to provide cash assistance to likely-to-be affected communities before a typhoon hits. This enables communities to use the cash assistance to protect their families and livelihoods, for example stocking up on food, medicine and other essential items or harvesting earlier.

Two years after Typhoon Yolanda, WFP developed a Forecast-based Financing pilot project in the Philippines, which led the way to Anticipatory Action (AA). With the AA approach, WFP wanted to provide humanitarian assistance before a climate shock occurs, and not after as it was traditionally the case. *“While it cannot be done for all shocks – such as earthquakes that cannot be forecasted – typhoons can be predicted, so we can help at-risk communities prepare for it,”* says Zuhaina Abubacar, WFP’s Senior Programme Associate (Climate & Anticipatory Action).

WFP first tested the AA approach in the municipalities of Bulan, Pilar, and Irosin, Sorsogon

province in December 2019. The province of Sorsogon was selected based on reliable weather forecasts and seasonal data, and the fact that the region was about to enter its peak flood season. WFP Philippines distributed anticipatory cash transfers to 1,000 vulnerable households. Five days after, Typhoon Tisoy made landfall in Sorsogon and destroyed 65,000 houses. Follow-up WFP assessments found that AA beneficiaries were able to prepare better before the onset of the hazard and recovered faster after the disaster.

Arnol Lista, Pilar’s Municipal DRRM Officer, recalled: *“The amount received may not be a lot, but for people*

in our municipality, it means they could use it to buy food and other necessities; get their houses ready before the storm, and move on with their lives much quicker after the storm.”

Today, AA is widely recognized in the Philippines and worldwide as an efficient way to minimize losses and damages caused by climate-related hazards. In 2023, the Humanitarian Country Team mapped over 190 AA interventions in 113 municipalities by 32 organizations. Close to 118,000 Filipino families are now registered in AA programmes coordinated not only by WFP, but also by various organizations such as other

Towards a draft policy on the “Declaration of State of Imminent Disaster”

United Nations agencies (OCHA, FAO, IOM, UNICEF, UNFPA), the Red Cross/Red Crescent, and Non-Government Organizations (NGOs).

As a key member of the national AA Technical Working Group (AA TWG), WFP has been leading the technical discussions and coordination with the Government and other partners to support the institutionalization of AA within the national DRRM system. Together with the Office of Civil Defense (OCD) and the Department of Budget and Management, WFP co-leads the AA TWG “Policy, Financing, and Institutionalization” Thematic Sub-Group.

A key milestone achievement is to initiate the review of the policy environment in the Philippine context of AA. This led the OCD to introduce a draft policy on the “Declaration of State of Imminent Disaster,” which will allow a mechanism for LGUs and NGAs to access funding to implement anticipatory actions to mitigate the impact of extreme weather events on the most on populations most vulnerable to emergencies.

According to the proposed law, the Declaration of State of Imminent Disaster will be made in anticipation of a highly probable disaster based on projected impacts validated by the Pre-Disaster Risk Assessment as severe enough to require funding to supplement local resources in preventing or alleviating damages and losses.

Among others, this landmark bill, if passed, will allow access to funds even before the declaration of a state of calamity, provide for institutionalized AA and other pre-disaster response mechanisms, such as pre-positioning and distribution of goods and resources, including social protection interventions, and strengthen pre-emptive evacuation and other mitigation measures at the local level, as may be deemed necessary. The current draft bill has undergone multiple vetting processes to the members of the AA TWG and NDRRMC Response Pillar member agencies and is planned to be presented to the Congress by the end of 2023 once finalized.





15 Cagayan de Oro addresses water scarcity through rainwater harvesting

In 2011, Cagayan de Oro City deployed a rainwater harvesting system to support water needs of families relocated after Typhoon Sendong. More than a decade later, and even after the installation of water pipes, the system is still in use and serves as an important water source for communities.

The densely populated Cagayan de Oro City was one of the worst hit areas by Typhoon Sendong in 2011. At the time, many residents living around danger zones, such as waterways and along the river, were displaced and lost family members and friends.

After the Typhoon, some of the at-risk communities were relocated to Mahogany Resettlement. Located outside the city centre, Mahogany did not have access to a water system at the time. To address this, the City Government proposed to deploy

a rainwater harvesting system to support water needs for domestic use by the residents.

The design, undertaken with WFP's support by the City Planning and Development Office and the City Engineer's Office, was practical and simple, with a common tank of 1,000 cubic meters shared between two adjacent homes. Around 80 tanks were provided to 160 homes, benefiting about 700 people.

Today, the rainwater harvesting system is still considered a successful community-based intervention, serving as an important water source for communities even now that there is a piped connection available. Almost 10 years after its implementation, at least 50 percent of the units distributed remains actively used.

The Mahogany Village Homeowners' Association is the lead organization overseeing the maintenance of the tanks, reminding owners to clean them once a month.



16 Knowledge and skills influence agricultural practices in Irosin

4 years after attending a season-long training, farmers continue to implement good agricultural practices. Farmers amplify their newly acquired knowledge and skills by supporting the local government as resource persons.

Irosin is tagged as the rice granary of Sorsogon Province, but it is not spared from hazards that batter the area such as typhoons, floods, droughts, and landslides.

To help communities deal with the impact of climate change, the Climate Resiliency Field School established by the LGU with the Rice Watch and Action Network (R1) and the Department of Science and Technology (DOST) taught farmers to use climate data to adapt their planting habits. Among the functions of the CRFS is to implement a non-traditional learning programme for farmers and fisherfolk.

Irosin's Municipal Agriculturist Nimfa Ferolino explains: "Farming communities can better adapt to climate change impacts if they are armed with

knowledge, skills, and information on different adaptation measures. Our office needs to be able to provide a climate informed agriculture and constantly support our farmers and influence their good agricultural practices."

WFP and the Municipal Agriculturist's Office identified communities highly at risk to natural disasters and climate change and embarked on a season-long training of 100 male and female farmers. The use of information on climate and weather patterns and the introduction of sustainable practices, such as organic farming, all aimed to build capacity to become climate-resilient farmers through good practices, including the diversification of livelihoods.

Over the years, many farmer graduates have become active members of associations by sustaining and expanding their knowledge and skills in farming. Antonio Ete was one of the early trainees of the CRFS. Today, he supports the Department of Agriculture (DA) as a seed grower and a trainer. He said, "Like others in our association, I am a long-standing local farmer technician of the DA. We are called upon when the DA has trainings in the barangays. I have gone to many trainings to teach new ways of farming and share information on my own concoction or created fertilizer. There are also some who come to me and request to be taught how to make soap or candles."



Mangroves build storm barriers in Prieto Diaz

Climate smart solutions can be simple and inexpensive. In Prieto Diaz, the municipality is rehabilitating and preserving mangroves to protect coastal communities from storms and tsunamis. Protecting mangroves can be 1,000 times less expensive, per kilometer, than building seawalls.

Prieto Diaz, a coastal municipality by the Pacific Ocean, is particularly exposed to the risk of typhoons, storm surges, monsoon shifts, and tsunamis. To protect its communities, the municipality invested in nature-based solutions, such as the rehabilitation of mangroves, in partnership with the Municipal Agriculture Office, Municipal Environment and Natural Resources Office, and WFP.

"We have a municipal ordinance declaring the mangrove forest reserve," tells Roderick Dumasig, Municipal Planning and Development Coordinator. *"We are thankful and proud to have large mangrove areas. They are our natural barrier."*

Mangroves are important natural protectors. They shelter land and coastal communities from storms, tsunamis, rising sea levels and erosion. According to UN Environment's research, mangroves also extract up to five times more carbon from the atmosphere than forests on land, and protecting mangroves is 1,000 times less expensive, per kilometre, than building seawalls – making them a great ally for climate adaptation.

"After Typhoon Tisoy, we saw that there were more collapsed houses in areas where there is no mangrove. In areas with mangroves, there were also damaged houses, but not as many," concluded Dumasig.

"We are thankful and proud to have large mangrove areas. They are our natural barrier."



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After Typhoon Tisoy, we saw that there were more collapsed houses in areas where there is no mangrove. In areas with mangroves, there were also damaged houses, but not as many.





A new mechanized system boosts the production of food packs

The installation of a mechanized packing system in the National Resource Operations Center (NROC) in Manila enables NROC to produce up to 18,000 family food packs in an 8-hour shift – enough packs to feed 90,000 people. The mechanized packing system has increased NROC production by 43 percent.

The Department of Social Welfare and Development (DSWD) has been distributing family food packs to people affected by disasters since the 1960s.

Each food pack contains six kilos of rice, four tins of corned beef, four tins of sardines, and six packs of energy drinks or coffee. It is sufficient for a family of five for two days.

In the wake of Super Typhoon Yolanda, the Government and WFP agreed to work together on improving the production and delivery capacity of family food packs, so they can be delivered faster and in larger quantities for future emergencies. After years of collaboration, the Government and

WFP successfully established two disaster response centres in Luzon and the Visayas in 2015 and 2016, with the capability to produce a large quantity of food packs rapidly.

A big advancement was the installation of a mechanized packing system in the National Resource Operations Center (NROC) in Manila, the first of its kind in the Philippines. The system, which includes automatic case erectors, sealers, and bagging machines, enables NROC to produce up to 18,000 family food packs in an 8-hour shift – enough packs to feed 90,000 people. The mechanized packing system has increased NROC production by 43 percent.

The scale of production enabled by mechanized packing allows the Government to stockpile and pre-position packs throughout the country in regions that might be affected by disasters, thereby reducing delivery times once disasters occur.





Efficient, cost saving and sustainable



Pre-positioning of family food packs before an emergency, leading to faster response



Providing a solution to a pre-identified gap in response



Government buy-in and investment to sustain long-term production



Flexible funding to allow resources to be transferred from one activity to another





Local procurement of food assistance enables fast delivery

In 2021, Typhoon Odette hit many remote islands in the Philippines. For weeks, people living on those islands lost access to food and other basic needs. Working alongside its partners, WFP explored all procurement and logistics options to ensure the swiftest delivery of life-saving food to families living there. As is often the case, buying from local suppliers was the most efficient answer, as well as an additional way to support local communities.

After Typhoon Odette hit in December 2021, affected communities needed assistance as quickly as possible. When the Philippine Government declared that it welcomed international assistance, WFP looked at the quickest viable option to procure, transport, and deliver food to affected communities. The best solution was to ‘buy local,’ as it did not only support the local agriculture sector, but also saved precious time in transportation.

During the emergency response in Odette, “We bought locally grown rice from suppliers in Norala, South Cotabato, who delivered it to our warehouse in Polloc town, not too far from Cotabato,” explained WFP Logistics Associate Carlo Buning.

“From our Polloc warehouse, 1,135 mt of rice in 50-kg bags were delivered to Dinagat Islands and Siargao, with a significant number taken by small boats to heavily devastated islands.”

Bucas Grande was one of these islands. Its 22,314 inhabitants were left without food following the aftermath of the typhoon. It is situated off the coast of the far eastern part of mainland Surigao del Norte in Mindanao. “We delivered the rice to Hayanggabon Port by four trucks from Polloc. These were then loaded bag by bag in a single day onto a hired boat. It took an hour for the loaded boat to sail to Bucas Grande. This solution avoided a 5-hour sea journey from Surigao City port and other time-consuming delays. WFP was able to distribute rice in

six of the island’s fourteen villages in two days,” said WFP Logistics Officer Noel Delos Santos.

“Buying the rice locally saved us precious time,” added Radjemma Lao, Logistics Assistant for Transport. *“If we had bought the rice from another country, even in the region, transporting it by sea would have required several additional weeks. Also, by buying local, we could return damaged items to suppliers, who immediately send replacements.”*

By prioritizing local companies to deliver emergency assistance, humanitarian organizations do not only save time, but also contribute to more sustainable agricultural systems and more dynamic retail sectors, which result in more resilient communities.



Revolutionizing emergency telecommunications with GECS-MOVE

WFP and the Department of Information and Communications Technology (DICT) have launched a ground-breaking innovative project in which six high-tech, mobile, emergency telecommunications units (GECS-MOVE) were built and pre-positioned in major disaster-prone areas of the Philippines, ready to be deployed to immediately re-establish connectivity after a disaster.

In any disaster, one of the first collateral impacts is the disruption of internet and phone services. This isolates the affected communities and blocks crucial and life-saving information, which prevents both the victims and the first responders from exchanging vital information. Restoring telecommunications is therefore one of the first critical steps in any emergency response.

“Having a complete emergency setup in a ‘magic box’ has always been a dream,” tells Martin Kristensson, WFP’s telecommunications project manager in the Philippines who has been deployed in multiple emergency situations throughout his career. *“Every time we arrive in a country to respond to an emergency, we wish for a ‘magic box’ with a button to give instant telecommunications to emergency responders.”*

Learning from the 2013 Typhoon Yolanda calamity, WFP and DICT envisioned that this dream could be realized, and created GECS-MOVE: the Government Emergency Communications System Mobile Operations Vehicle for Emergencies.

With GECS-MOVE, six trucks filled with high-tech emergency telecommunications equipment to re-establish telecommunications were designed and built.

Ahead of the 2021 typhoon season, the six GECS-MOVE trucks were strategically dispatched across the country, ready to be immediately deployed closer to the disaster zones at first notice ahead of a natural hazard. When Typhon Rai, the strongest typhoon of 2021, was approaching the south of

the country, MOVE units were dispatched on the typhoon forecasted track. As soon as the typhoon had passed, teams who had accompanied the MOVE sets got systems up and working, thus re-establishing critical telecommunications for first responders in these areas.

“The dream had become true,” says Martin. *“With a flip of a switch, we had everything set up, with ready-to-provide services. The units have proved to be the ideal solution – self-contained with electricity, reliably providing stable services to various partners working on the emergency response.”*



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With a flip of a switch, we had everything set up, with ready-to-provide services. The units have proved to be the ideal solution – self-contained with electricity, reliably providing stable services to various partners working on the emergency response.



Cash assistance: flexibility, efficiency, and beneficiary choice

Within the span of a decade, cash assistance has gradually been emerging as the primary modality for providing assistance when markets are operational. Cash empowers people and gives them both choice and flexibility to buy what they need. The money multiplies in the local economy and increases job opportunities.

Over the last decade, in-kind food assistance, such as rice, has partly given way to cash-based transfers.

“During our recent emergency operation to provide assistance to communities affected by Typhoon Odette, we distributed rice to 30 percent of our beneficiaries, while the majority received cash assistance,” says WFP’s Emergency Coordinator, Hannes Goegele. *“A decade ago, it was the opposite. In the two months that followed Typhoon Yolanda, WFP distributed rice to 96 percent of the communities assisted, while only 4 percent received cash assistance. Back then, food was still the main form of assistance provided by WFP.”*

Cash assistance is now becoming the main way to provide assistance when markets are operational, as not everyone needs the same thing at the same time after a disaster. *“After Typhoon Odette, rice was not always what people wanted, as they had other needs.”* said Alicia Follosco, a WFP programme policy officer. On the other hand, money can help people buy food but also pay for transport and temporary accommodation to get out of harm’s way; it gives the flexibility to people to choose what they need, when they need it.

Cash transfers also have multiplier effects on local economies. By enabling people to purchase food and other items locally, cash boosts local markets.

Digital cash transfers are also cost-efficient and auditable, so that WFP knows that the money reaches the people it was intended for. *“There is a perception that giving cash is riskier than giving food, because it is easier to hide or divert. This is not true. With stable connectivity and proper systems in place, cash leaves a digital trail that ensures people receive the money we send them,”* explained Sharon Lumpias, WFP’s social protection expert.



Digital solutions improve disaster response

Providing food and cash assistance to populations affected by large-scale shocks is an important but challenging part of disaster response, particularly when it comes to registering a large number of beneficiaries. WFP has been working to provide digital advisory and solution services to support governments to efficiently oversee beneficiary and transfer management during such trying times. To this end, WFP uses SCOPE, its cloud-based beneficiary identity management system used by the Organization around the world.

Identifying and documenting hundreds of thousands of potential beneficiaries after a disaster raises major logistical hurdles.

WFP has responded to this challenge with SCOPE. *“SCOPE is a flexible and powerful digital tool that enables WFP to store and manage beneficiary information and ensure its assistance is as effective as possible. It facilitates the tracking of distributions with assurance, from beneficiary registration to reconciliation and reporting,”* tells WFP’s SCOPE expert, Kai Lyndel Rabang.

WFP first used SCOPE in the Philippines in 2018, in response to the arrival of Typhoon Mangkhut.

Later that year, plans to develop an information management system in collaboration with the Philippines’ Department of Social Welfare and Development also began. In 2019, at DSWD’s request, WFP hosted a workshop to explore technical solutions for DSWD to register beneficiaries quickly and efficiently, especially in the aftermath of disasters.

Since then, WFP and DSWD have collaborated multiple times to register affected populations through SCOPE, for example after Taal Volcano eruption or during the COVID-19 crisis. WFP has created a separate SCOPE environment for the sole use of the Government of the Philippines.

The Government has full control over the beneficiary profiles registered in this environment where the data is not accessible by anyone other than selected users from DSWD and the local IT, and data management support staff from WFP.

DSWD is now developing its own nationally coordinated beneficiary database specifically for disaster response, building on the experience and lessons learned from SCOPE. Data that has been collected in SCOPE since 2018 will be migrated to this new, Filipino in-house system.





The 72-hour assessment: a tool to accelerate decision making

How many people are affected? What life-saving support do they need? What are the critical gaps for responders to fill? In emergency situations, getting quick and reliable information is crucial to action. The 72-hour Assessment Tool was introduced by WFP with the aim of accelerating the availability of the initial assessment information, and thereby reducing the time needed to make critical, life-saving decisions.

Lying along the country's eastern seaboard, Sorsogon Province is one of the first provinces to be hit when a typhoon builds up from the Pacific Ocean.

"The Province of Sorsogon has been using the 72-hour Assessment Tool since 2015," says Engineer Raden Dimaano, the Provincial DRRM Officer. "It has improved the preparedness and response systems of the Provincial Government, from planning the deployment of response teams to monitoring impact at the municipal level."

"Before an incoming typhoon arrives, we are able to identify which places need to be prioritized. We use GIS to compute the number of affected people based on their location and hazards in the area, like floods, landslides, storm surge or tsunami. This is extremely useful in our risk assessment as we can

quickly provide information on who will be hit and who will need assistance. The Provincial Government can decide very quickly and utilize resources more efficiently," added PDRRM Officer Dimaano.

WFP introduced the 72-hour Assessment Tool in the Philippines as part of the DPR-CCA project with the aim to accelerate the availability of the initial assessment information immediately after a disaster. It aims to provide a good enough snapshot in the first three days after a disaster based on the most recent available information and pre-disaster data.

The tool shows on one page the estimates of damaged houses, number of affected families, total population affected, and the impacts on farming, fishing, tourism, and employment.

Based on the projection of impacts, decision-makers can already deploy resources for the response without having to wait for field validation of the typhoon's impact, even in extremely challenging and complex situations. The fine-tuning and updates of initial estimates are made over time and regularly communicated through continuous updates as new data become available, for example from field visits, rapid assessments, remote sensing, mobile phone surveys, social media, and more extensive emergency food security assessments at a later stage.

The benefit of the 72-hour assessment is that local authorities can visualize the projected impact, providing estimated damages, and prioritize the most affected areas and populations vulnerable to emergencies, triggering actions such as pre-emptive evacuations and pre-positioning of supplies and goods.



Using food vouchers to deliver relief and support the economy

In 2022, WFP tested the use of food vouchers to support communities affected by Typhoon Odette. With vouchers, families could choose which products they wanted to receive from a list of around 40 food items available at selected stores – including rice, pasta, meat, vegetables, fruits, eggs, and fish. In addition to providing beneficiaries with the option to access a diversified and nutritious diet, the voucher system also supported the local economy.

After Typhoon Odette, WFP delivered part of its assistance through a ‘value voucher’ programme. WFP carefully designed a list of food items tailored to deliver and encourage varied and nutritious diets to be redeemed with vouchers. WFP provided this form of assistance to 19,000 families. Anyone with a value voucher could go to selected shops or vendors and purchase items using this.

The Canoy family was part of the selected vendors. Kent and Melissa Canoy had been operating their store successfully for 13 years when Typhoon Odette almost destroyed their business. Their warehouse was washed out, rendering many goods unusable, and the wall of their shop was torn down. Kent and Melissa were determined not to

relinquish their dream and to find a way to rebuild their shop and business.

Then help came when Kent and Melissa’s business was selected as one of the vendors for WFP’s ‘value voucher’ food assistance programme. The funding and credit lines they received enabled them to stock their warehouse with the wide range of commodities needed for WFP’s shopping list.

The value voucher scheme benefitted Kent and Melissa’s business and the community, and it also strengthened the local markets. They bought their stocks from local suppliers and from the central market. When the WFP team met Kent, he said: “The vegetables that I offer here today are from a

small-scale farmer, and the fish is from another vendor. They are very happy that I obtain goods from them, which stimulates their businesses as well.”

“The implementation of the value voucher scheme during Typhoon Odette served as an informative case study on how food and nutrition gaps could be addressed, but also to illustrate its potential to support local economies,” said Giorgi Dolidze, WFP’s Head of Programme. Based on this experience, the Department of Social Welfare and Development and WFP launched a new pilot Food Stamp Programme, also known as *Walang Gutom* 2027, to aid low-income households through a card loaded with food credits.



25 One Tone - One Frequency: Sorsogon's radio for emergency response

To facilitate coordination efforts after an emergency, Sorsogon province set up the 'One Tone - One Frequency' radio. All relevant actors are connected to the radio and can exchange information, including the province, municipalities, cities, the Philippine Army, the Philippine Coast Guard, the Bureau of Fire Protection, and the Philippine National Police.

Sorsogon province established its emergency telecommunications capacity through the One Tone - One Frequency (Sorsogon Radio Communication Network - Frequency 159.575 MHZ), which is being used for emergency response and crisis management. This initiative was initially started in seven municipalities, with WFP support, and the province funded the connection of the remaining eight municipalities. The frequency is also used for reporting medical emergencies.

Michael Tayam, in charge of GIS at the province, stressed the importance of this alternative method to connect to the municipalities during an emergency response. "This radio communication system keeps us connected to MDRRMOs and Council members. Even if there are power outages during

a severe typhoon, we simply connect the radio to a generator, and it can then be used. What is important is for the MDRRMOs to also keep their radios connected to a generator to be able to receive or transmit information to the province, which consolidates all data in emergencies."

Disaster cluster members like the Philippine Army, Philippine Coast Guard, Bureau of Fire Protection, and the Philippine National Police are also connected to the system for emergency coordination. The province recently added 20 units of satellite phones to build emergency communications redundancy.

On One Tone - One Frequency, information gathered about potential impacts, as well as

preparedness and response activities in each municipality and city, are shared through radio communication. Using the radio, the Provincial Disaster Risk Reduction and Management Office can collect and monitor information on the ground. Radios are critical during periods when there are power outages, which is often the case after a disaster.

Information about disaster risks and early warning is shared to the public through other media platforms such as local radio stations and social media networks. This completes the cycle of information that is required for the entire province to be informed and prepared to tackle the impacts of disasters and reduce threats to life, property, and the local economy.



V. Engagement and Participation of Other Actors in Preparedness and Response Mechanisms

This section contains examples of engaging communities, private sector, civil society and academia in emergency preparedness and response. The engagement and participation of multiple partners ensures their broad awareness of objectives and contribution to overall emergency preparedness and response efforts.



Setting up automatic weather stations in Laguna with University of the Philippines Los Baños

Automatic Weather Stations (AWS) are used to measure rainfall, temperature, and wind velocity 24/7. University of the Philippines Los Baños (UPLB) designed a system where AWS can send automatic messages to alert municipalities of potential disasters. With this Early Warning System, municipalities can give swift warnings to residents, for example for heavy rains or winds, so they can prepare themselves.

Starting in 2011, University of the Philippines Los Baños (UPLB), WFP's academic partner in Laguna, led the technology transfer, social preparation, and maintenance of four sets of AWS installed in the municipalities of Mabitac, Rizal, Pila, and Famy. The AWS's collect rainfall data, temperature, humidity, and other parameters used to alert residents about a potential disaster.

Each AWS is made of wind cups, rain gauge, solar panel, wind vane, thermo hygrometer, and wireless range which allowed for data logging

and transmission. The technology development and deployment were led by the Institute of Mathematical Sciences and Physics and the School of Environmental Science and Management.

Along with the AWS, UPLB worked with each municipality to set up different early warning systems adapted to local needs. For example, in Mount Makiling, the AWS includes a box that can send warning text messages, based on parameters such as rainfall, wind speed, wind direction, and temperature. The device also has a siren and light

with three warning colours, which serves as a warning to the community, especially at night, during the monsoon season, or during heavy rainfall.

Sorsogon PDRMO, Raden Dimaano, acknowledged the importance of the early warning system for decision-making: *"The system gives us a summary of the population at risk. We can identify which LGUs are weak, what resources they have, and what they need. Those LGUs with less capacity are considered more vulnerable. Some may have enough funds but do not have sufficient levels of preparedness."*



A resource centre hosted by University of the Philippines Baguio

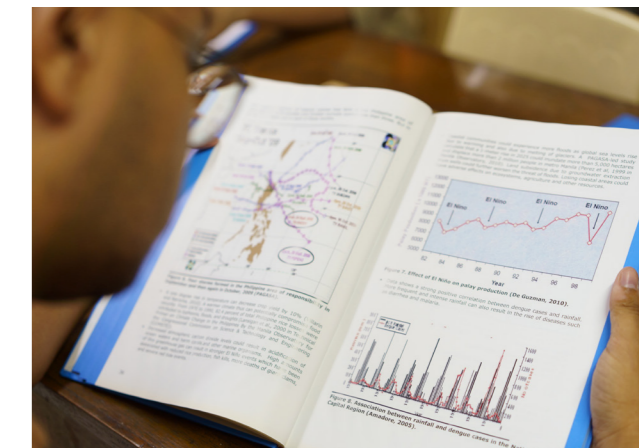
In 2013, University of the Philippines Baguio (UPB) established a resource centre for Climate Change and Disaster Risk Reduction. The centre serves as a repository of knowledge, but also as a space for exchanges between academics, practitioners, and advocates.

The Knowledge and Training Resource Center (KTRC) for Climate Change and Disaster Risk Reduction was launched in 2013. It is hosted in the Cordillera Studies Center of University of the Philippines (UP) Baguio. With WFP's support, the establishment of the KTRC marked UP Baguio's aspiration to be at the forefront of climate change adaptation and disaster preparedness-related information dissemination, education, training, and research in the Baguio-Benguet area.

Inspired by his training overseas, former UP Baguio Chancellor Raymundo Rovillos saw in

the knowledge centre a potential for applying sustainable development practices and resilience thinking within the education sector. *"We have been forming within UP Baguio our own community of practice; then, we were bold enough and courageous enough to participate in the discourse and action on climate change as it is becoming a global concern,"* recalls Professor Rovillos. The KTRC houses resource materials and knowledge products in both print and electronic formats about the science of climate change and disaster risk reduction and, specifically, on hazards and risks in Baguio and Benguet.

The KTRC does not only function as a repository of knowledge but also serves as a dynamic space for knowledge exchange among academics, practitioners, and advocates. For example, the KTRC led the work to identify the training needs of LGUs and develop modules on risk communication, media management, business continuity, and alliance building, and conduct training on these in various project sites of WFP. UP Baguio also complemented the landslide early warning system of Tublay through research on rainfall patterns and in correlation with landslide occurrence.





Investing in research to design climate change adaptation interventions



How will the production of rice be affected by increasing drought risks? Which region will be affected by changing rainfall patterns? Which vegetable will better adapt to rising temperatures? WFP is investing in research to answer these questions, so communities – especially farmers - can anticipate and adapt to the reality of the climate crisis.

In 2021, WFP published a key study, the ‘Climate Change and Food Security Analysis’ that looked at the interconnectedness of climate change and food security in the Philippines, with a particular emphasis on the threats and the opportunities it presents to food, nutrition, and livelihoods in rural and urban areas.

The study presents a set of scenarios of climate change impacts over time, in 2030, 2050, 2070, and 2090.

The study and its country-wide scenarios offer stakeholders information and model situations particularly on food production, accessibility, supply stability, utilization, and consumption patterns, identifying the agricultural livelihoods

that could be most impacted by climate change, to what extent, and where.

“As more sectors have access to this study, it is WFP’s aim that more multi-sectoral interventions aimed at promoting climate change adaptation and livelihood resilience are developed and prioritized,” said Brenda Barton, former WFP Country Director.



Empowering women and mothers in Sorsogon

In Sorsogon, an NGO called Coastal CORE has been focusing on providing emergency preparedness and response training to women and parents, mostly mothers. Empowering women through training is critical so they can contribute – equally with men – to building better prepared communities.

Coastal CORE, an NGO based in Sorsogon Province, supported WFP's training course on DRRM of women and parents, mostly mothers, strengthening their confidence and skills to organize and facilitate community risk assessments and consultations. Parents were registered in the 4Ps programme – the Department of Social Welfare and Development (DSWD) social protection programme – through which they attended family development sessions and various training.

Shirley Bolanos, Executive Director of Coastal CORE, emphasized the role of community engagement: "Communities will be the ones to put these concepts and practices into action towards strengthening the culture of safety and resilience."

Bolanos was impressed how engaged the

community women were in the training.

"They were good at facilitating, they just needed to be equipped with guidance and tools."

One of the women leaders was Maria Corazon Lorin Abo, an officer of a local NGO (Federation of Association for Community and Children's Empowerment, Inc.), and then-barangay councilor of Bitan-o in Sorsogon City. The training exercises were eye-opening for her. One of the most significant changes she saw was in people's mindset and awareness that they should be prepared. As Abo describes it: "Women are usually at home, looking after the family. They are now prepared. They do not want to wait for Signal No. 3 before they do something."

In the local adage "*sa piyesta, may handaan, sa kalamidad may paghahanda* - during a feast, we prepare our spread; in times of calamity, we are prepared." Abo is proud to have organized diverse groups of people – women, children, youth, parents, and senior citizens – many of whom were reluctant to join at first. They were soon invited to train in other barangays.

Having experienced typhoons and flooding and the effects of high tide, the impact is also personal to Abo. "This helped me a lot. I realized that one does not need to be a college graduate or have a diploma to help. I start with my family and share it with my neighbors and community."



Testing climate-smart agriculture solutions with Benguet State University



Benguet State University engaged farmers participating in WFP projects to test climate-smart agricultural technologies in their farm lots. The partnership proved to be mutually beneficial. Academics were able to validate the application of their technologies, while farmers learned about innovative technologies to adapt to climate change.

In 2015, WFP started its cooperation with Benguet State University (BSU) through its Climate-Smart Agriculture Center (CSAC) to test and showcase climate-smart agricultural technologies to help farmers adapt to climate impacts.

Different approaches, such as intercropping and using organic fertilizers, were field tested in WFP project sites in Buguias, Bokod, Atok, and Tublay. A custom-built greenhouse prototype designed by the College of Engineering was also tested in hilly and mountainous areas.

Farmers who agreed to participate in the experiment were recruited as implementers. They divided their farm lots into two sections: one portion was farmed the usual way, while the other served as the experimental demonstration plot that was planted and managed by the CSAC team, using soil management and soil conservation techniques.

When harvest time came, a field day event was held. Farmers, including non-participants of the project, displayed their produce. Immediately, it was evident that the experimental plots

produced higher yield than the other plots. Farmers were then asked to pick the better-grown vegetables. As it turned out, the better-quality products were those from the experimental plots.

Overall, the partnership was successful both for farmers and academics. The researchers were able to validate the application of their techniques and technologies, and to adapt them based on their experiences working with the communities. On the other hand, farmers learned about new climate-resilient agricultural practices, enabling them to

make better decisions to reduce risk to their livelihoods.

Benguet State University published the training manual called 'Building Climate Resilient Highland Vegetable Farmer Communities' in 2018. It contains a community-based farmers' assessment, the BSU Technology Innovation Menu, and a Learning Site Session for the farmer field school. Another guide, 'Farm Planning and Organic Agricultural Practices', was also published in the same year as a complementary guide.

These publications provide lessons learned and insights for both academics and farmers, underlining the importance of transferring academic knowledge to the local communities, which have also proved themselves crucial to provide the research with first-hand knowledge and wisdom that cannot be learned in the laboratory.



Acronyms

AA	Anticipatory Action
AWS	Automatic Weather Station
BDRRMC	Barangay Disaster Risk Reduction and Management Council
BEKAS	Barangay Extension and Knowledge Advocacy for Safe and Resilient Benguet
BSU	Benguet State University
CBDRRM	Community-based Disaster Risk Reduction and Management
CCA	Climate Change Adaptation
CCFSA	Climate Change and Food Security Analysis
CLUP	Comprehensive Land Use Plan
CSAC	Climate-Smart Agriculture Center
DBM	Department of Budget and Management
DICT	Department of Information and Communications Technology
DPR-CCA	Disaster Preparedness and Response – Climate Change Adaptation

DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
DRRMO	Disaster Risk Reduction Office/Officer
DSWD	Department of Social Welfare and Development
E-BHIDA	Enhanced Barangay Household Inventory and Directory Assessment
EOC	Emergency Operations Center
EWS	Early Warning System
FAO	Food and Agriculture Organization
FSP	Food Stamp Program
GECS-MOVE	Government Emergency Communications Systems – Mobile Operations Vehicle for Emergencies
GIS	Geographic Information System
ICS	Incident Command System
IOM	International Organization for Migration

JQERT	Juban Quick/Emergency Response Team
KTRC	Knowledge Training and Resource Center
LCCAP	Local Climate Change Action Plan
LDRRMO	Local Disaster Risk Reduction and Management Office/Officer
LGU	Local Government Unit
LTACDV	La Trinidad Accredited Disaster Volunteers
MISP	Institute of Mathematical Sciences and Physics
MPDC	Municipal Planning and Development Coordinator
NBZ	No-Build-Zones
NDRRMC	National Disaster Risk Reduction and Management Council
NGO	Non-Government Organization
NHTS-PR	National Household Targeting System for Poverty Reduction
NROC	National Resource Operations Center
OCD	Office of Civil Defense
OCHA	United Nations Office for the Coordination of Humanitarian Affairs

PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PBSP	Philippine Business for Social Progress
PDRA	Pre-Disaster Risk Assessment
PSA	Philippine Statistics Authority
RA	Republic Act
RCBMS	Rapid Community-Based Management System
SESAM	School of Environmental Science and Management
SGLG	Seal of Good Local Governance
TWG	Technical Working Group
UN	United Nations
UNICEF	United Nations Children’s Fund
UNFPA	United Nations Population Fund
UP	University of the Philippines
USAID	United States Agency for International Development
WFP	World Food Programme

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PREP KA NA BA? Are you Ready?

30 initiatives that enabled emergency preparedness and response in the Philippines

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