

AdapTayo Building Resilience to Climate Change and Disaster Risk

Growing Vulnerabilities due to a Changing Climate

The Philippines is one of the most at risk countries in the world for natural disasters. Comprised of over 7000 islands, situated on the Pacific "Ring of Fire" and in the Pacific typhoon belt, the country ranks second in the world in annual risk to people from earthquakes and cyclones¹. It experienced 270 natural disaster events in the past two decades² – more than any other country in the world.

Major events like Tropical Storm Sendong (2011, international: Washi) command worldwide attention for the sheer scale of their impacts. Yet, smaller events, often unreported, may be just as destructive in aggregate. The consistent threat of disruptive disasters discourages investment, and negatively affects progress towards the Millennium Development Goals and improved human development. Poor and marginalized communities, which depend most on services provided by natural systems, are disproportionately affected. While embedded communal knowledge and national support for disaster risk reduction have helped them weather many disasters, the balance between coping and catastrophe is a precarious one.

Climate change poses a grave threat to this balance. Changes in weather patterns are resulting in more intense and more frequent disasters that strike in more areas. Already, typhoons are hitting parts of the country that have historically been shielded, while floods and droughts have affected food production. Communities must continue to draw on lessons from past planning and recovery work, but they also need to prepare for longer-term, more gradual changes to their support systems and environment. For these communities, adapting to climate change is a vital part of reducing long-term disaster risk and becoming more resilient.

Building on Experience

UNDP, along with the UN System, has traditionally been at the forefront of disaster response around the globe. In the Philippines, UNDP has helped build capacity for disaster preparedness and recovery, and has been a catalyst for national disaster risk reduction (DRR) policy frameworks. Recognizing that a changing climate is

AdapTayo combines "adapt" with the Filipino word "tayo," meaning "let us adapt."

¹ United Nations 2009 Global Report on Disaster Risk Reduction

² Germanwatch's Climate Risk Index Report in 2011

fundamentally altering the effects of natural disasters and the traditional links connecting people and the environment, UNDP is focusing on the relationship between climate change adaptation and disaster risk reduction. Building on previous work, UNDP is supporting the analysis of past events and generation of future scenarios, improving the capacity of people and institutions to adapt, and helping local leaders marry traditional coping mechanisms with evolving national policies and knowledge.



Mangrove rehabilitation is an effective means of softening the affects of major storm surges on coastal areas.

■ **Understanding Current and Future Risk** - A major barrier to effective disaster risk reduction in the Philippines is the limited analysis of historical data and geophysical attributes that can be used to understand risks today. The "Hazards Mapping and Assessment for Effective Community Based Disaster Risk Management (DRM)" (READY) project, undertaken with support from AusAID and implemented by the Office of Civil Defense, aims to address this situation. The project has created multi-hazard maps for 27 vulnerable provinces, and has also trained communities on disaster preparedness and recovery planning, strengthening the ability of local and regional governments to cope with disasters and of individuals to contribute to their own safety.

Climate change will fundamentally alter risk profiles, and proper planning for the future must take into account climate models. UNDP, with the Global Environment Facility (GEF), supports the National Communication on Climate Change – reports that provide decision makers with valuable inventories of existing plans and analysis of potential climate risk. UNDP, with other UN agencies, is working on the Spanish-government sponsored MDG Achievement Fund Joint Programme, "Strengthening the Philippine's Institutional Capacity to Adapt to Climate Change." A key component of this

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Success Stories

In 2004, Tropical Depression Winnie caused floods and landslides in the municipalities of Real, Infanta, and General Nakar. 1500 people died. This disaster prompted the government to examine how to more pro-actively manage disaster risk to prevent similar human catastrophes from happening in the future. They enlisted the help of UNDP, creating the project, “Strengthening the Disaster Preparedness Capacities of the Municipalities of Real, Infanta and Nakar (REINA) to Geologic and Meteorological Hazards.” By the time REINA finished in 2005, it had successfully brought together the main national disaster risk management agencies to create multi-hazard maps, put in place early-warning systems, and promote more systematic consideration of risks in the three municipalities.

Based on the success of that initial project, UNDP entered into a partnership with what is now the National Disaster Risk Reduction and Management Council (NDRRMC) on READY. READY would apply the methodologies and learning from REINA to other vulnerable areas of the country. Six years later, the multi-hazard maps created by the project are being used by LGUs to limit their disaster risk and for development planning, while other LGUs across the nation are requesting similar hazard mapping, proving their value. REINA and READY have shown that when provided with proper data and analysis, local governments can effectively limit disaster risk, preventing unnecessary loss of life and damage.



Obandenos walking in the flooded streets of Obando, Bulacan during the aftermath of Typhoon Ondoy (Ketsana) in 2009.

programme is to develop realistic climate scenarios for the future, allowing Local Government Units (LGUs) to apply climate risk data to the existing understanding of hazards in order to reduce both acute and longer-term impacts.

■ **Catalyzing National Policy for Climate and Disaster Risk** - UNDP has worked to highlight the need for “Establishing a Holistic Framework for Disaster and Environmental Hazards Management in the Philippines.” This project challenged the prevailing national emphasis on emergency response over risk reduction, preparation, and recovery. UNDP was an early supporter of the Philippine Disaster Risk Reduction and Management Act of 2010 that institutionalized plans and activities supporting national risk assessment, knowledge building and sharing, awareness and preparedness, and early recovery. UNDP also supported the Climate Change Act of 2009, which created the Climate Change Commission.

Working with the National Economic and Development Authority (NEDA), funded by AusAID and the New Zealand Aid Programme, UNDP is supporting the creation of frameworks for national climate

change policy and local integration. “Integrating Disaster Risk Reduction and Climate Change Adaptation in Local Development Planning and Decision-making Processes” is developing training materials and toolkits for LGUs and enhancing their capacity to create development plans that incorporate climate change and disaster risk. This project complements the results from “Mainstreaming Disaster Risk Management in Sub-national Development and Physical Planning”, a previous UNDP and NEDA project that strengthened inter-institutional collaboration among DRM practitioners and increased their capacity to plan for multi-hazard risks.

■ **Cooperation and Community Coping Mechanisms** - Key to reducing climate and disaster risk at the local level is strong inter-community cooperation between different stakeholders. UNDP’s “Building Community Resilience and Strengthening Local Government Capacities for Recovery and Disaster Risk Management” project, implemented by the Office of Civil Defense with funding from the Canadian International Development Agency, is developing a scalable process for creating inter-LGU, multi-stakeholder governance frameworks. A pilot targeting Cainta, Pasig City, and Marikina along a flood-prone river in eastern Metro Manila – three of the worst hit urban areas during 2009’s Tropical Storm Ondoy – will test and refine this approach.

The “Enhancing the Greater MetroManila’s Institutional Capacity for Effective Disaster/Climate Risk Management towards Sustainable Development (GMMA)” project will create a regional network of institutions that can address multiple hazards, including risks from climate change. UNDP has also provided funding and support to the establishment of the Climate Change Academy in Albay province. The Academy will aggregate and share disaster preparedness and climate change adaptation best practices, helping to jumpstart disaster and climate risk planning. These projects recognize that disasters and climate change ignore anthropogenic boundaries, requiring strong cooperation and coordination between all stakeholders.

Preparing for the Unknown

UNDP’s experience shows that proper planning and preparation can minimize the chances that natural events turn into full-scale human catastrophes. UNDP will continue to assist the most at-risk communities, and encourage greater coordination, collaboration, and planning. While specific impacts cannot be predicted, it is clear that climate change will invariably alter weather patterns, the scope and severity of disasters, and the interaction between people and their natural ecosystems. UNDP’s support for national, regional, and community-based interventions that promote disaster preparedness help to safeguard and foster human development in these changing circumstances, and to empower people to create a more resilient Philippines.

To contribute to this initiative, or to find out more about UNDP Philippines’ work on Climate Change Adaptation and Disaster Risk Reduction, please visit our website at www.undp.org.ph or contact Ms. Amelia Supetran, Energy and Environment Team Leader, (+63) 901-0224, or at amelia.supetran@undp.org

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