

# DevPulse

NEDA Development Advocacy Factsheet

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## Dealing with Climate Change

Climate change is one of the most serious environmental challenges facing the world according to Greenpeace, the world's largest environmental organization.

The risk of hydrometeorological related disasters for the Philippines' most vulnerable populations is expected to increase because of climate change. This is borne by the conclusions of the Inter-governmental Panel on Climate Change' (IPCC) Fourth Assessment Report, "Climate Change 2007: Climate Change Impacts, Adaptation and Vulnerability: Summary for Policymakers" that anthropogenic warming over the last three decades has had a discernible influence on many physical and biological systems.

These disasters greatly affect the socioeconomic development of the country. From 1995 to 2007, it lost PhP115 billion from the combined impact of flashfloods, typhoons, and dry spells. These phenomena not only stunted production, they also stranded food supplies, displaced and endangered families, have taken lives and even exacerbated the plight of the poor.

Thus, the Philippines, with other nations, individuals and firms around the world, are taking decisive actions to mitigate the threats and adapt to the inevitable consequences of climate change.

### Understanding Climate Change

The Inter-governmental Panel on Climate Change (IPCC) defines climate change as "a statistically significant variation in either the mean state of the climate or change in precipitation, temperature and wind, persisting typically for decades or longer." On the other hand, the United Nations Framework Convention on Climate Change (UNFCCC) defines it as the "change in climate attributed directly or indirectly to human activities, in addition to natural climate variability observed over comparable time periods."

Experts place emphasis on the composition of the atmosphere as this is the earth's natural temperature control system. They noted certain gases including carbon dioxide, methane, nitrous

oxide, ozone, halocarbons, water vapor and other industrial gases which, if unregulated, may affect the balance of heat coming in and out of the earth. They call these greenhouse gases (GHGs). These gases may cause the "greenhouse effect" which allows sunlight to pass through but traps infrared radiation or heat that warms the atmosphere. Naturally occurring GHGs are critical as they control the Earth's natural temperature.

However, human activities are causing GHG levels in the atmosphere to rise above optimum levels. For example, when power plants burn fossil fuel or when trees are cut so that housing projects may be built, carbon dioxide increases in the atmosphere. There are also agricultural activities and covered vented landfill emissions which bring about methane and nitrous oxide, automobile exhaust fumes which produce ozone, and other industrial materials which produce other gasses such as CFCs, HFCs, and PFCs. The IPCC reports that atmospheric levels of GHGs have nearly doubled in 150 years, from 280 part per million (ppm) CO<sub>2</sub>e to 430 ppm.

### Evidences and Impacts in the Philippines

Since the late 19th century, global average temperature has already increased. This resulted in the melt down of glacial ice causing sea level to rise by 10 to 20 cm as well as the increase of ocean water temperature. It has decreased snow cover by 10 percent since the late 1960s and brought about the increase in the frequency of extreme weather events.

These events are evident in the Philippines generally through the experience of strong warm (El Niño) and strong cold (La Niña) weather. A Greenpeace paper cited a study by the Philippine Atmospheric Geophysical Astronomical Services Administration (PAGASA) showing that the Philippines experienced five La Niña and seven El Niño episodes from 1970 to 2000 compared to only three La Niña and two El Niño episodes from 1950 to 1970.

The most apparent impacts of climate change may be felt on water sources, agriculture and food security, forest, coastal areas, species and natural areas, and human health.

In recent years, the country has already felt the effects of climate change. Worse, being an archipelago, it faces more severe threats as the world gets hotter.

As annual temperature is projected to rise by 2 to 3°C, precipitation patterns are also seen to change that may affect water supply in Eastern Mindanao and portions of Samar, Quezon, Metro Manila, Central Visayas, and Southern Tagalog Provinces.

Furthermore, the Philippines already experiences the highest number of tropical typhoons in the world with an average of 20 typhoons entering the country a year. If the trend continues, the country's coastal ecosystems, which accommodate 70 percent of its municipalities and cities (or about 15 million people) would likely encounter severe typhoons, flooding and storm surges.

It must be noted that each of these phenomena does not come cheap. Recently, typhoon Frank affected 959,000 families and caused damages in infrastructure and agriculture worth PhP13.2 billion. Imagine the socioeconomic impacts on islands sinking underwater as sea-level rises.

There are also risks to biodiversity and the introduction of new diseases. For example, bird flu virus may enter the country through change in migration patterns. These, among others are the issues that should be addressed by the government as well as other sectors of society.

### Responding to Climate Change

The world is addressing climate change through the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The UNFCCC proposed the stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Parties present in the Convention committed returning GHG emissions to 1990 levels by the year 2000. The Kyoto Protocol, on the other hand, contains legally binding emission targets for industrialized countries (Annex 1 countries). These countries committed to reduce their collective emissions of six key GHGs by at least five percent by 2008 to 2012 with demonstrable progress in 2005.

The Philippines, as a Non-Annex 1 country to the Kyoto Protocol and can legitimately undertake Clean Development Mechanism (CDM) projects. This flexibility mechanism allows Annex 1 to comply with their quantified emission limitation and achieve reduction commitments through the funding of CDM projects in developing countries. Executive Order 320 signed on June 25, 2004 made the Department of Environment and Natural Resources (DENR) the Designated National Authority (DNA) on CDM to facilitate the development and approval of projects under this program.

There are two ways to respond to climate change, this is through adaptation and mitigation. The Philippines employs both in responding to the issue. While our participation in climate change mitigation is voluntary, the country tries to mitigate the effects of climate change by reducing the sources of GHGs and enhancing the capacity of the earth to absorb these gases (also referred to as sinks). Examples of these initiatives include:



Development projects may place a tremendous pressure on the environment and reduce GHG sinks.

(a) reforestation programs; (b) the government-wide energy conservation program; (c) the advocacy for the use of non-fossil fuel energy sources such as compressed natural gas (CNG) in the transport sector; and (d) the 33 MW windmill Northwind Bangui Bay Project under the CDM which has already received the Carbon Emission Reduction (CER) certificate.

The Philippines also adapts and takes practical steps to protect its communities from more possible disruption and damage resulting from climate change. According to Socioeconomic Planning Secretary and National Economic and Development Authority (NEDA) Director General Ralph G. Recto, "the country aims to engage in multistakeholder adaptation strategies which would involve a synergy of the correct assessment of current vulnerabilities to climate change impacts, use of appropriate technologies, information on traditional coping practices, diversified livelihoods, improved capacities, and current government and local interventions." He adds that these should include standards and regulations that integrate climate change considerations into building the signs and codes, land use policies, and strengthening of services.

At present, the government is taking efforts to mainstream sustainable development policies and the inclusion of climate-proofing strategies in key development plans and processes as a means to adapt to climate change. These will be undertaken in key pipeline projects such as the MDG-Fund Joint Programme in Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change and the World Bank-GEF funded Philippines Climate Change Adaptation Program Phase 1. These builds on the efforts made from previous government projects on climate change with Official Development Assistance (ODA) on Productive Sector Risk Assessment for Hydro Meteorological Hazards and Mainstreaming Disaster Risk Management (DRM) in Sub-national Development and Land Use/Physical Framework Planning in the Philippines (EC-DIPECHO and UNDP funded) implemented by NEDA.

The President has also declared November 19-25, 2008 and every year thereafter as "Global Warming and Climate Change Consciousness Week" by virtue of Executive Order No. 1667.

#### Sources:

- 1) Agriculture Staff - Climate Change Advocacy Briefing Presentation
- 2) DG RGR Speech during climate change signing with UNDP
- 3) JP Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change
- 4) <http://www.greenpeace.org/raw/content/seasia/en/press/reports/crisis-or-opportunity.pdf>