

# WHAT IS CLIMATE CHANGE?

The climate is changing and human activities are viewed as one of the causes for this change.

Our lifestyle has led to the accumulation of greenhouse gases (GHGs) in the atmosphere. These GHGs trap heat from the sun, making the earth warmer. Manifestations of a warmer world include rising mean temperatures, sea level rise and increase in the frequency and intensity of extreme weather events like droughts and greater rainfall.

The United Nations Intergovernmental Panel on Climate Change defines climate change as a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer.

Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

# WHAT IS THE CAUSE OF CLIMATE CHANGE?

Climate change is primarily caused by the accumulation of greenhouse gases in the atmosphere, trapping the sun's heat, commonly known as the greenhouse effect.

# WHAT IS THE CAUSE OF GREENHOUSE EFFECT?

The "greenhouse effect", a natural phenomenon which makes the Earth a liveable planet, is the warming that happens when certain gases in Earth's atmosphere trap heat. These gases let in sunlight but keep heat from escaping, like the glass walls of a greenhouse that is why it is called green house effect.

Through the burning of fossil fuels and the emission of other GHGs, humans are continuously enhancing the greenhouse effect, further warming the Earth.

Examples of these GHGs are:

- Water vapor
- Carbon Dioxide
- Human-made gases generated during industrial processes such as sulfur hexafluoride, hydrofluorocarbons and perfuorocarbons
- Methane
- Nitrous oxide

# WHAT ARE THE IMPACTS OF CLIMATE CHANGE? SEA LEVEL RISE TEMPERATURE PRECIPITATION HEALTH IMPACTS Weather related mortality Infectious Diseases Air Quality Respiratory Illnesses FOREST IMPACTS Change in forest composition. Shift geographic range of forests IMPACT ON COASTAL AREAS Erosion of beaches Inundate coastal lands Cost to defend coastal communities WATER RESOURCES IMPACTS Change in water supply Water quality Increased Competition for water

# WHAT ARE THE APPROACHES TO ADDRESS THE IMPACTS OF CLIMATE CHANGE?



# **ADAPTATION**

In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effect; human intervention may facilitate adjustment to expected climate.

(IPCC, 2012: Summary for Policymakers. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L Ebi, M.D. Mastrandrea, K.J. Mach, G-K. Plattner, S. K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II the intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA. pp.3-21.)

# **MITIGATION**

Technological change and changes in activities that reduce resources inputs and emissions per unit of output and implementing policies to reduce greenhouse gas emissions and enhance sinks.



(Verbruggen, A., W. Moomaw, J. Nyboer, 2011: Annex I Glossary, Acronyms, Chemical Symbols and Prefixes. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation [O. Edenhofer, R. PichsMadruga, Y. Sokona, K. Seyboth, P. Matschoss, S. Kadner, T. Zwickel, P. Eickemeier, G. Hansen, S Schlomer, C. von Stechow (eds)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA)

# WHAT IS THE INTERNATIONAL COMMUNITY DOING TO SOLVE CLIMATE CHANGE?



Responding to the call for action, the international community crafted and signed the United Nations Framework Convention on Climate Change, which seeks to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."

# WHAT IS THE GOVERNMENT DOING TO HELP IN THE GLOBAL EFFORT TO FIGHT CLIMATE CHANGE?

### A. CLIMATE CHANGE COMMISSION

The Philippine Congress enacted Republic Act 9729 otherwise known as the Climate Change Act of 2009. This law created the Climate Change Commission.

The Commission is the lead policy-making body tasked to coordinate, monitor and evaluate action plans of the government related to climate change.

The Commission formulated the National Strategy Framework on Climate Change and the National Climate Change Action Plan. The NCCAP, which was approved on November 25, 2011, is currently being demonstrated at the local level through the Ecotown Framework.

# B. CABINET CLUSTER ON CLIMATE CHANGE ADAPTATION AND MITIGATION

Formed under Executive Order 43, the Cabinet Cluster on Climate Change Adaptation and Mitigation serves as the President's advisory committee on climate change related programs, policies and projects. This cluster shall focus on the conservation, and protection of the environment and natural resources. It shall take the lead in pursuing measures to adapt to and mitigate the effects of climate change on the Philippine archipelago.

The Commission serves as the cabinet secretariat for this cluster which has 10 core member government agencies headed by the Department of Environment and Natural Resources.

## C. PEOPLE'S SURVIVAL FUND LAW

Through the passage of Republic Act 10174, more commonly known as the People's Survival Fund (PSF) Law, the government allotted an initial budget of PHP 1 Billion for the implementation of climate change adaptation initiatives of local governments and communities.

The PSF is a special fund from the national treasury which can be used for the management of water resources, land, agricultural and fisheries, health, infrastructure development, and natural ecosystems. It would also be used in guaranteeing risk insurance needs for farmers and agricultural workers and for community adaptation support programs of local organizations.

### D. PEOPLE'S SURVIVAL FUND BOARD

This body will oversee the utilization of the People's Survival Fund by:

- Providing strategic guidance in the management and use of the fund.
- Developing social, financial and environmental safeguards to be used in project implementation.
- Issuing final approval of projects for the use of the fund.
- Auditing the fund through an independent third party.

# AS INDIVIDUALS WHAT CAN WE DO TO HELP FIGHT CLIMATE CHANGE?

As responsible citizens, we can also be active in addressing climate change. Here are some tips:

### **ENVIRONMENTAL EDUCATION**

Knowledge is power. Read more on the current issues on climate change, discuss it with friends.

### **REDUCE CONSUMPTION**

Buy less, use less, re-use, recycle and upcycle as much as possible! Refusing the use of plastic items is also encouraged.

### PRACTICE ECO-FRIENDLY TRANSPORTATION

- Regularly have your cars/vehicles serviced for efficient engine performance.
- Be an advocate of biking, walking and car pooling.
- For short distances, you can just walk or use a bicycle.
   When going to your work or to some distant places, take the public transport.

### **SAVE ENERGY**

• Change your incandescent light bulbs with LED lights.

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# the basics of climate change



Spread Size: 12.9 x 8.46 inches