



**SECRETARY EMMANUEL M. DE GUZMAN**  
**Climate change Commission**

**Conference on Disaster Risk Reduction and Climate Change Mitigation**  
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Esteemed leaders of the academe, distinguished speakers, health care professionals; ladies and gentlemen; good morning.

**The IPCC Special Report on Global Warming of 1.5°C**

Climate change is undeniable.

The science is beyond doubt.

Recently, the Intergovernmental Panel on Climate Change's (IPCC) released its Special Report on Global Warming of 1.5 degrees Celsius which includes an assessment of the latest scientific understanding of climate change. The report reflects the consensus of a broad community of stakeholders and holds to IPCC's highly regarded standards for scientific integrity.

It is focused on the risks presented by – and the challenges of avoiding – a warming of 1.5 degrees C above pre-industrial levels.

It gives policymakers and practitioners the information they need to make decisions that tackle climate change while considering local context and people's needs.

**Highlights of the Special Report**

The release of the report affirms the Philippines' call for greater urgency and ambition in implementing the Paris Agreement.

It strengthens the Philippine leadership stand and policy advocacy on the pursuit of the global warming threshold and long-term temperature goal of 1.5 degrees Celsius above pre-industrial levels.

As this latest climate science informs national policy and global action, it also fortifies the moral foundation on which we call for greater resolve and unequivocal solidarity to do more and faster to make our one planet safer and our future more secure.

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The report gave us insights on what awaits us if we remain complacent to the recurring impacts of climate change.

According to the report, global warming is likely reach 1.5°C between 2030 and 2052. If it continues to increase at the current rate, reaching human-induced global warming of 1.5°C around 2040 with an estimated 0.2°C increase per decade due to past and ongoing greenhouse gas emissions.

This increase will result to drastic changes in weather patterns, such as warming of extreme temperatures, increase in frequency, intensity and duration of floods, and increase in frequency and intensity of droughts.

It is projected to shift the ranges of many marine species to higher latitudes, as well as increase the amount of damage to many ecosystems, drive the loss of coastal resources, and reduce the productivity of fisheries and aquaculture.

The level of ocean acidification due to increasing CO<sub>2</sub> concentrations associated with global warming of 1.5°C is projected to amplify the adverse effects of warming, impacting the growth, development, calcification, survival, and thus abundance of a broad range of species.

Coral reefs, for example, are projected to decline by a further 70–90% at 1.5°C with larger losses (>99%) at 2°C.

Children from today may be the last generation to see coral reefs in all their glory. Global heating and ocean acidification have already severed, bleached 16 to 33% of all warm-water reefs, but the remainder is vulnerable to even a fraction of a degree of warming.

In addition, further warming would also amplify the risks and associated impacts, with implications for the world and its inhabitants.

This would be the case even if the global warming is held at 1.5°C, just 0.4 degrees above where we are now, and would be further amplified at 2°C of global warming.

Impacts on biodiversity and ecosystems, including species loss and extinction, are projected to be lower at 1.5°C of global warming compared to 2°C

Limiting warming to 1.5°C, compared with 2°C, is projected to result in smaller net reductions in yields of maize, rice, wheat, and potentially other cereal crops (particularly in places like Southeast Asia).

In terms of risk, Climate-related risks to health, livelihoods, food security, water supply, human security and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C.

Risks from droughts and precipitation deficits are projected to be higher at 2°C compared to 1.5°C global warming in some regions.

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Heavy precipitation associated with tropical cyclones is projected to be higher at 2°C compared to 1.5°C global warming.

Climate change is projected to be a poverty multiplier, which means that its impacts are expected to make the poor poorer and the total number of people living in poverty greater.

To put it in a simple manner, the IPCC Special Report shows that the world is not on track to reach the goal of the Paris Agreement to limiting the global temperature rise to 1.5°C.

We are almost out of time. We are seeing the windows of opportunities closing right in front of our eyes.

If business as usual were to continue, vulnerable countries, those who are contributing less to the global carbon emission like the Philippines, were bound to suffer most from the impacts of climate change.

## **Climate Change Outlook in the Philippines**

But the Philippines is no stranger to the impacts of climate change. Our status as a developing nation makes us even more vulnerable to extreme weather events, which in recent years have only come more frequently and intensely. Few Filipinos would forget 2013, when Haiyan, the strongest typhoon to ever make landfall, devastated the country, causing 184 million dollars in damage, sending hundreds of thousands rushing to evacuation centers, and claiming at least 6,300 lives.

And this year, Super typhoon Ompong (Mangkhut) – 2018’s strongest storm so far – scoured the Northern Luzon, leaving 76,000 homes wrecked, Php 26.7 billion worth of damages to crops and livestock, and killed almost 90 Filipinos.

All these scenarios occurred under the 1°C temperature rise. If these climate events seem already dire at this point, imagine a world that has warmed to two degrees.

Let me give you a more intricate scenario on what will happen to the Philippines if we continue to neglect these horrifying impacts of climate change.

**Annual GDP loss by 2100.** Within the last two decades, our country experienced an annual average loss of 2.89 billion US dollars, which is equivalent to .6% of our GDP.<sup>1</sup>

**Major rainfall changes in patterns and distributions.** A 2011 PAGASA report suggests a decrease in rainfall by 2020 in most parts of the country except Luzon. As far as extreme rainfall is concerned, however, the number of days with heavy

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<sup>1</sup> 2018 Global Climate Risk Index, Germanwatch. <https://germanwatch.org/de/download/20432.pdf>

rainfall (e.g., greater than 200 mm) is expected to increase with global warming by the year 2020 and 2050.<sup>2</sup>

**Threats to natural ecosystems.** Approximately 1 million hectares of grasslands in the Philippines are highly vulnerable to climate change in the future. Most grasslands in the uplands are prone to fires particularly during extended periods of dryness and lack of rainfall during summer.

**Dying corals.** The 2016 Low Carbon Monitor Report foresees that 98 percent of coral reefs in Southeast Asia will die by 2050, practically an extinction by the end of the century if current global warming trends will continue.<sup>3</sup>

**Declining rice yields.** An analysis of temperature trends and irrigated field experiments at the International Rice Research Institute shows that grain yield decreased by at least 10% for each 1°C increase in growing-season minimum temperature in the dry season.<sup>4</sup>

**Higher sea level rise.** We pride ourselves as a beautiful archipelago with 7,107 islands. Soon that number will be reduced due to rising sea levels, which have also led to constant flooding in areas such as in Davao City, Navotas, Malabon, Cavite, and Legazpi City.<sup>5</sup>

Many coastlines will vanish due to sea level rise, which means that thousands of coastal communities—which are mostly the poorest will be affected.<sup>6</sup>

Observed sea level rise is remarkably highest at 61 centimeters in the Philippines, about three times that of the global average of 19 centimeters.<sup>7</sup>

This puts at risk 60 percent of LGUs covering 64 coastal provinces, 822 coastal municipalities, 25 major coastal cities, and an estimated 13.6 million Filipinos that would need relocation.

**More intense droughts.** Global warming exacerbates the effects of El Niño the most recent of which was experienced in the country from 2015 to 2016.

The Department of Agriculture estimated that 413,456 farmers have been directly affected by El Niño-associated drought and dry spells during the last El Niño period.

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2 Cruz, R. V. O., Aliño, P. M., Cabrera O. C., David, C. P. C., David, L. T., Lansigan, F. P., Lasco, R. D., Licuanan, W. R. Y., Lorenzo, F. M., Mamauag, S. S., Peñaflor, E. L., Perez, R. T., Pulhin, J. M., Rollon, R. N., Samson, M. S., Siringan, F. P., Tibig, L. V., Uy, N. M., Villanoy, C. L. (2017). 2017 Philippine Climate Change Assessment: Impacts, Vulnerabilities and Adaptation. The Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation, Inc. and Climate Change Commission. Retrieved January 23, 2018, from <http://climate.gov.ph/images/knowledge/PhilCCA-WG2.pdf>.

3 Schaeffer, E., Rocha, M., & McKinnon, M. (2016, November 16). *The Low Carbon Monitor*.

4 IPCC Fifth Assessment Report. (2013-2014). Retrieved January 23, 2018, from <https://www.ipcc.ch/report/ar5/>.

5 Aside from climate change, the estimated sea level rise is also caused by the Pacific Decadal Oscillation (PDO).

6 Coastal infrastructure, disaster, sea-level rise, climate ... (2015, October 19). Retrieved January 24, 2018, from <http://www.homelandsecuritynewswire.com/dr20151019-philippines-coastal-areas-go-underwater-due-to-sea-level-rise>.

7 Thompson, A. (2017, May 18). El Niño Again? This Is Why It's Hard to Tell. Retrieved January 25, 2018, from <http://www.climatecentral.org/news/el-nino-again-why-its-hard-to-tell-21451>

In 2016, the drought ignited a protest by 6,000 affected farmers that resulted in violence in Kidapawan, North Cotabato.

**Water scarcity.** Climate change, rapid urbanization, and population growth drives water scarcity worldwide.

A study conducted by the World Resources Institute predicts the Philippines will experience a "high" degree of water shortage in the year 2040.

The country ranked 57th likely most water stressed country in 2040 out of 167 countries. The sector that will bear the brunt of water shortage by that year is agriculture, a major component of the country's economy.

**Labor productivity declined.** According to a 2016 United Nations study, climate change-induced heat in the country's workplace is projected to render 1% loss in working hours by 2025, 2% by 2050, and 4% by 2085.<sup>8</sup>

**More public health emergencies.** According to the SR1.5, higher temperatures also trigger the surge of vector diseases as dengue, malaria, cholera, and typhoid. We will also witness a high increase in mortality rate.

Climate change will bring new and emerging health issues, including heatwaves and other extreme events as heat stress can not only make working conditions unbearable; it increases the risk of cardiovascular, respiratory and renal diseases.

Certain groups have higher susceptibility to climate-sensitive health impacts—the elderly, for example, or pregnant women, or those marginalized due to their income, or their culture, or even illnesses such as HIV.

Malnutrition and undernutrition area concern for a number of developing countries in Africa, Asia and Latin America, which discussed the impacts of climate change on food security, particularly in relation to floods and drought.

As informed by the latest climate science, we can no longer exclude risks of the mentioned catastrophic tipping points.

We are at the point where we need to transform and pursue the low-carbon development pathway. We need to keep track of the exponential progress in technological innovation and knowledge transfer as we pursue the fulfillment of the Paris Agreement starting 2020.

Now, not later or tomorrow, is the right time to increase our ambitions and take precautionary measure to bend the curve of emissions - which currently is still increasing – and begin the radical descent in order to stay safely under 2°C.

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<sup>8</sup> Kjellstrom, T., Otto, Matthias, Lemke, Bruno, et al. *Climate Change and Labour: Impacts of Heat in the Workplace* (p. 15, Tech.). (2016). *United Nations Development Programme*. Retrieved January 28, 2018, [http://www.ilo.org/global/topics/green-jobs/publications/WCMS\\_476194/lang-en/index.htm](http://www.ilo.org/global/topics/green-jobs/publications/WCMS_476194/lang-en/index.htm).

To do all these, we should pursue climate actions together and more forward in locked steps.

We must converge our efforts, our resources, our expertise towards climate resilience.

## **CCC in pursuit of its mandate and climate actions**

The Climate Change Commission is taking progressive stride to facilitate and coordinate climate actions of the government and other sectors. Our goal: A climate resilient Philippines.

We are mainstreaming climate change into national programs and policies and forge partnerships with different government and non-government organizations, aligned with the scheme of the Paris Agreement.

**National Integrated Risk Information System.** Along with the Department of Science and Technology, the Climate Change Commission is now facilitating the establishment of a National Integrated Risk Information System or NIRIS to address the fragmentation and shortage of risk information in the country. A singular platform for risk information lets national and local government agencies access risk data, empowering them to better formulate climate and disaster risk-related plans and policies. It will strengthen multi-hazard early warning system and impact-based forecasting in the country. It will also benefit the private sector through providing risk information to inform climate-resilient investment planning.

Low carbon development strategies are already being mainstreamed. The National Economic Development Authority's Philippine Development Plan highlighted energy efficiency and the conservation program under the plan's infrastructure component. The Department of Environment and Natural Resources has also conducted a GHG emission inventory identification for all thermal power plants as part of the process of Environmental Impact Assessment.

The Department of Energy is transitioning to more sustainable pathways for energy. It's been issuing renewable portfolio standards for on-grid energy; conducting public consultations on the green energy option and the renewable energy market; doing campaigns such as E-Power Mo, their advocacies with other agencies on the energy management program as well as their drive to push for legislation.

A National Policy Framework on Energy is now being drafted for approval of the Climate Change Commission. It will then be transmitted to the Office of the President, relevant national government agencies and to Congress.

**Green Jobs.** Pursuant to the Green Jobs Act of 2016, the Climate Change Commission is also fast-tracking the development of standards and certification system for providing incentives to enterprises that generate and sustain green jobs – jobs that nurture the environment, promote social protection, and decarbonize the economy.

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**Energy policy reform.** In line with its Resolution on the national policy review on energy, CCC is currently finalizing its final report on the outcome of extensive consultations, and also pursuing studies on carbon pricing towards a carbon pricing legislation, among other energy policy reforms.

**Communities for Resilience.** Moreover, we are strengthening our Communities for Resilience Program, the main platform of the Climate Change Commission for capacity building and training for the academe and the local government professionals.

We're especially focused on enhancing local development and investment plans, including local climate change action plans, local disaster risk reduction and management plans, comprehensive land use plans, and comprehensive development plans, and on preparing quality project proposals for People's Survival Fund grant funding.

To date, we already covered 10 major river basins across the country. From 137 LCCAPs in 2015, we now have 1379 LCCAPs, most of which are still undergoing quality assurance process.

**Enhancement of MRV system.** We have also recently enhanced our national MRV system with the launch of our national platform for data exchange on climate change, which includes greenhouse gas inventory, called National Integrated Climate Change Data and Information Exchange System or NICCDIES, now accessible to all. We had our launch the System in May 2018.

**Updating of NCCAP.** Anchored on the Commission's mandate to update the National Climate Change Action Plan (NCCAP) as operational strategy to propel the thrust of Republic Act of 9729 or the Climate Change Act of 2009, as amended by RA 10174 of the People's Survival Fund, we affirm that climate change is a development issue that demands the rethinking of paradigms and redefining of our approaches to sustainable development.

**Finalization of the Philippine NDC.** To contribute to that 1.5 goal, we in CCC are finalizing the country's Nationally Determined Contributions (NDC) for submission to the UNFCCC by the end of this year. This will be our roadmap on how we intend to transition towards a green economy and will serve as a ready reference for investments in innovative and transformative low-carbon projects for the country's green economic growth, a development pathway the Green Climate Fund is very keen on supporting public-private partnership with its climate finance.

**National Climate Risk Management Framework.** We are also facilitating the development of a National Climate Risk Management Framework (NCRMF), a strategic response of the Climate Change Commission for the urgent addressing of societal resilience in the era of climate change. This entails the conduct of a national stocktake on climate risk data which will serve as the basis for systematizing, simplifying and harmonizing data sets for more effective and efficient determination of government's priority interventions to be considered under the updating of the National Climate Change Action Plan.

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**People's Survival Fund.** To date, we already have already six (6) projects under the People's Survival Fund approved by the PSF Board:

- **P 39.08M** for the Disaster Risk Reduction & Management Response as Coping Mechanism to Resiliency in Lanuza, Surigao del Sur
- **P 80.7M** for the Siargao Climate Field School for Farmers and Fisherfolks in the Municipality of Del Carmen, Siargao Islands, Surigao del Norte
- **P 33.89M** for the Building Resilience through Community-based Ecological Farming in San Francisco, Camotes Island, Cebu
- **P 38.1M** for the Promotion of Resiliency and Climate-Informed Gerona in Tarlac
- **P 28.5M** for the Establishment and Sustainable Management of River Ecosystem in Kitcharao, Agusan del Norte
- **P 104M** for the Saub Watershed Ecosystem Rehabilitation and Flood Risk Reduction for Increased Resilience in Sarangani

The submission of more proposals to access the PSF grants is encouraged. We continue to invest in training LGUsto develop quality project proposals.

## Closing

As climate change becomes the most defining threat to humans, we ought to do more.

If we do not change course now, runaway climate change will be a reality rather than an ever-increasing risk, with disastrous consequences for people and all the natural systems that sustain us.

Above all else, we need to recognize that climate change is an urgent public health problem. It is in this regard that I call the attention of our health sector colleagues, and leaders in all sectors and at all levels of government: we are at a crucial moment to fortify our commitments to climate action.

We are tasked to ensure the quality of living of our people – the air they breathe, the water they drink, and the surrounding they live in.

The frameworks have been forged; the agreements have been crafted and signed; solutions are staring us in the face.

All these communicate one message: time to get off the path of suicidal emissions; act NOW.

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Start from addressing superpollutants- short lived climate pollutants – such as black carbon, hydro fluorocarbons or refrigerants and methane from solid waste can reduce as much as 0.6 centigrade the global warming trend.

I encourage you to accelerate our efforts, work with even greater vigor and resolve, and make climate action our foremost priority.

With this, we thank you and extend to you the cordial invitation to join us in the forthcoming annual observance of the CCC Week.

Thank you.

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