

Commission on Human Rights of the Philippines

Case No.: CHR-NI-2016-0001

**Petition Requesting an Investigation of the Responsibility of the Carbon
Majors for Human Rights Violations or Threats of Violations Resulting from
the Impacts of Climate Change**

SUBMISSION IN SUPPORT OF PETITIONERS

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December 16, 2016

Statement of Purpose

The Sabin Center makes this submission in support of the petition submitted by Greenpeace Southeast Asia and Philippine Rural Reconstruction Movement requesting an investigation into the responsibility of the “Carbon Majors” for human rights violations or threats of violations resulting from the impacts of climate change. The purpose of this submission is to provide the Commission on Human Rights with additional information on how the impacts of climate change interfere with the enjoyment of human rights, and why non-state actors may be held accountable for this interference under international human rights law.

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Introduction

Climate change poses an enormous threat to the lives and well-being of individuals and communities across the world. The harmful effects of climate change include increases in the severity and frequency of sudden-onset disasters such as hurricanes and floods, as well as more gradual forms of environmental degradation that will undermine access to clean water, food and other key resources. These effects have serious implications for the enjoyment of human rights.

This is not merely an abstract, future possibility. Many countries are already experiencing adverse effects as a result of climate change. The Philippines is no exception: the Global Climate Risk Index has consistently ranked the Philippines as one of the top five countries most affected by climate change.¹ This is due in large part to the increasing frequency of typhoons, tropical storms, floods and landslides in the Philippines. Of the ten deadliest typhoons to hit the country since 1947, five have occurred since 2006. While each of these typhoons cannot be definitively attributed to climate change, scientists have confirmed that sea level rise contributed to the destruction caused by these typhoons.² Extreme weather events and sea level rise are only part of the picture: as detailed below, there are many other ways in which climate change is adversely affecting the Philippines and other countries.

Petitioners have alleged key facts and presented the essential legal arguments for this investigation, specifically that:

- The companies collectively referred to as the “Carbon Majors” are responsible for a considerable share (approximately one fifth) of the greenhouse gas (GHG) emissions that contribute to global climate change.
- The Carbon Majors have legal obligations to: (1) avoid causing or contributing to adverse human rights impacts through their own activities, and (2) seek to prevent or mitigate adverse human rights

¹ See, e.g., SÖNKE KREFT ET AL., GLOBAL CLIMATE RISK INDEX 2016 (Joanne Chapman Rose et al. eds., Germanwatch 2015); SÖNKE KREFT ET AL., GLOBAL CLIMATE RISK INDEX 2015 (Birgit Kolboske & Lindy Devarti eds., Germanwatch 2014).

² WORLD METEOROLOGICAL ORGANIZATION (WMO), WMO STATEMENT ON THE STATUS OF THE GLOBAL CLIMATE IN 2013 (2014) at 8.

impacts that are directly linked to their operations, products or services by their business relationships.

- The Carbon Majors have breached these obligations by conducting and profiting from business activities that generate a huge quantity of GHG emissions and by intentionally obstructing efforts to control GHG emissions.
- States have a positive obligation to ensure that private actors within their jurisdiction do not violate human rights and to provide adequate remedies where such violations do occur.

This submission is intended to provide the Commission with a more detailed analysis of precisely how the impacts of climate change interfere with the enjoyment of fundamental human rights, and why non-state actors may be held accountable for this interference under international human rights law.

Impacts of Climate Change

1. Temperature Increase

Global temperatures are already increasing significantly. Each of the past three decades has been successively warmer, and 15 of the 16 hottest years have occurred during the 21st century.³ 2015 was the hottest year on record, with global average surface temperatures 0.90°C above the 20th century average.⁴ This is well beyond the historical range of variability in annual temperatures (0.24°C).⁵ Notably, temperatures over land have increased even more dramatically than the global average surface temperatures (which include ocean surfaces). Land surface

³ NASA Press Release: NASA, NOAA Analyses Reveal Record-Shattering Global Warm Temperatures in 2015 (Jan. 20, 2016), <http://www.nasa.gov/press-release/nasa-noaa-analyses-reveal-record-shattering-global-warm-temperatures-in-2015>.

⁴ NOAA *National Centers for Environmental Information, State of the Climate: Global Analysis for Annual 2015* (Jan. 2016), <https://www.ncdc.noaa.gov/sotc/global/201513>.

⁵ The standard deviation of annual average global temperatures from 1950 through 2005 was 0.24°C. IPCC, *Temporal Variability of Global Temperatures and Recent Warming*, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch3s3-2-2-6.html.

temperatures exceeded the 20th century average by 1.33°C in 2015⁶ and by 1.58°C from January through September of 2016.⁷

According to the latest report from the Intergovernmental Panel on Climate Change (IPCC), global average surface temperatures are likely to increase 1.5°C to 2.3°C above the 1850–1900 period by 2050, and temperatures could increase by more than 4°C by 2081–2100 if governments and business do not undertake concerted efforts to mitigate GHG emissions.⁸ The IPCC also predicts that there will be substantial warming in temperature extremes by the end of the 21st century, meaning that the number of unusually hot days and heat waves will increase around the globe.⁹

The Philippines Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) published a 2011 report documenting warming trends and projections in the Philippines. PAGASA found that, between 1951 and 2010, the Philippines experienced a 0.648°C increase in average temperature and a 1.0°C increase in maximum temperature.¹⁰ The Philippines also saw a significant increase in the number of hot days and a decrease in the number of cool nights from 1951 through 2010.¹¹ PAGASA predicts that annual mean temperatures in the Philippines are expected to rise by 0.9 – 1.1°C in 2020 and by 1.8 to 2.2°C in 2050, relative to a 1971-2000 baseline.¹² Since that report was published, the effects of rising temperatures in the Philippines have become even more apparent: earlier this year, the Philippines experienced a heat wave during which the heat index reached a dangerous 51°C (surpassing the previous record of 49.4°C, which was also set earlier this year).¹³

⁶ NOAA *Global Analysis for Annual 2015* (2016), *supra* note 4.

⁷ NOAA National Centers for Environmental Information, *State of the Climate: Global Analysis for September 2016* (Oct. 2016), <https://www.ncdc.noaa.gov/sotc/global/201609>.

⁸ IPCC, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, CONTRIBUTION OF THE WORKING GROUP II TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Christopher Field et al. eds., Cambridge University Press 2014) at 187 (hereinafter “IPCC WGII”).

⁹ *Id.*

¹⁰ PHILIPPINES ATMOSPHERIC, GEOPHYSICAL AND ASTRONOMICAL SERVICES ADMINISTRATION (PAGASA), CLIMATE CHANGE IN THE PHILIPPINES (2011) at 16.

¹¹ *Id.* at 20.

¹² *Id.* at 25.

¹³ Dona Z. Passbugan, *Heat Index Soars to Record 51°C*, PHILIPPINES DAILY INQUIRER, April 13, 2016, <http://newsinfo.inquirer.net/779281/heat-index-soars-to-record-51c>.

2. *Precipitation and Water Resources*

The effect of climate change on precipitation patterns and water resources will be varied depending on location and time of year. It is likely that climate change will increase the frequency of heavy precipitation during wet months in many areas, leading to a greater incidence of floods, landslides, erosion, and sedimentation.¹⁴ Future increases in precipitation extremes related to the monsoon are *very likely* according to the latest IPCC assessment.¹⁵

Climate change will also increase the frequency and severity of droughts and water shortages in presently dry areas. The IPCC predicts that there will be significant reductions in surface water and groundwater resources in most dry subtropical regions, thus intensifying competition for water among agriculture, ecosystems, settlements, industry, and energy production, and affecting regional water, energy, and food security.¹⁶ The primary drivers of these projected water shortages and droughts include: (i) reduced rainfall, (ii) reduced snowpack, resulting in less snowmelt supplying rivers and streams; and (iii) higher temperatures, which increase evaporation from surface water and soils. Sea level rise will also threaten freshwater supply in coastal areas by causing saltwater inundation of surface and ground water.

There is evidence that climate change has already contributed to increased incidence of extreme precipitation events and drought in certain regions. In the Philippines, there has been an observed increase in the number of heavy rainfall days as well as in the number of “no rain” days, which has likely contributed to severe floods and landslides as well as droughts.¹⁷ In the future, PAGASA predicts that most areas in the Philippines will experience a reduction in rainfall during the summer season, making the unusually dry season drier and increasing the risk of drought.¹⁸ Some areas are also projected to experience an increase in rainfall

¹⁴ IPCC WGII (2014), *supra* note 8, at 187.

¹⁵ *Id.* at 1334.

¹⁶ *Id.* at 232.

¹⁷ F.T. Cruz et al., *A Climatological Analysis of the Southwest Monsoon Rainfall in the Philippines*, 122 *ATMOSPHERIC RESEARCH* 609 (2013); James Warren, *Climate Change on the Impact of Drought on Human Affairs and Human History in the Philippines, 1582 – 2009* (Asia Research Centre 2013); IPCC, *Climate Change 2007: Observed Changes in Extreme Climatic Events*, https://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch10s10-2-3.html (noting that increased occurrence of extreme rains likely caused landslides and floods in 1990 and 2004 in the Philippines, as well as droughts in 1997-98 which caused massive crop failures and water shortages and forest fires in various parts of the Philippines).

¹⁸ PAGASA (2011), *supra* note 10, at 25.

during the southwest monsoon season and the transition from the southwest to northeast monsoon season, increasing the risk of flooding and landslides in these areas.¹⁹ Throughout the country, there are projected increases in both heavy rainfall days (days with rainfall exceeding 300 mm) and dry days (less than 2.5 mm rainfall).²⁰ The intensity of these extreme weather events is also projected to increase, resulting in an increased risk of both floods and droughts.²¹

3. *Sea level rise*

Scientists predict that global mean sea levels will rise by 0.17–0.38 meters by the mid-century (2046-2065) and by 0.26–0.82 meters by the end of the century (2081-2100), as compared with a 1986-2005 baseline.²² Coastal systems and low-lying areas will increasingly experience adverse impacts such as submergence, flooding, erosion, and saltwater intrusion as a result of projected sea level rise. Increases in precipitation and coastal storms will contribute to these harmful impacts.

In the Philippines, sea levels are rising much more quickly than the global average, due in part to subsidence along the shoreline. Based on satellite measurements taken from 2002 through 2014, sea levels along the Philippines coastline increased by 14.7 ± 4.4 mm per year – more than *five times the global average* (2.74 ± 0.58 mm per year).²³ The University of the Philippines, Los Baños Climate Change Program conducted a study of how sea level rise would affect the Philippines based on earlier estimates that sea levels were increasing at three times the global average, and found that this rate of sea level rise would lead to the inundation of more than 167,000 hectares of coastland (about 0.6% of the country’s total area) and 171 towns, as well as the displacement of 13.6 million

¹⁹ *Id.* at 25, 27. See also A. YUSUF & H. FRANCISCO, HOTSPOTS! MAPPING CLIMATE CHANGE VULNERABILITY IN SOUTHEAST ASIA (2010) (finding that the Philippines is particularly vulnerable to floods and landslides).

²⁰ PAGASA (2011), *supra* note 10, at 27.

²¹ J.M. Pulhin & M.A. Tapia, *Integrating Disaster Risk Reduction and Climate Change Adaptation: Initiatives and Challenges in the Philippines*, Ch. 11 in CLIMATE CHANGE ADAPTATION AND DISASTER RISK REDUCTION: AN ASIAN PERSPECTIVE (R. Shaw et al. eds., 2010).

²² IPCC, CLIMATE CHANGE 2013: THE TECHNICAL SCIENCE BASIS, WORKING GROUP I CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Thomas Stocker et al. eds., Cambridge University Press 2013) at 90 (hereinafter “IPCC WGI”).

²³ Roelof Rietbroek, *Revisiting the Contemporary Sea-level Budget on Global and Regional Scales*, 113(6) PNAS 1504 (2016).

Filipinos.²⁴ These impacts could be even more pervasive in light of the most recent sea level rise estimates for the Philippines.²⁵

4. *Tropical Storms*

Climate change will likely cause an increase in both the wind speed and rain rates of tropical cyclones, resulting in a higher frequency of more severe tropical storms.²⁶ The effects of these tropical storms on coastal settlements and ecosystems will be exacerbated by sea level rise.²⁷ Projected increases in extreme rainfall, particularly during the monsoon season, can also compound the negative effects of tropical storms.²⁸

These impacts pose a significant threat to the Philippines due to its location (in the path of many tropical cyclones), the large number of islands and roughly 36,000 km of coastline, and the large number of people who live near the coastline. There has already been an observed increase in the number of severe tropical cyclones in the Philippines.²⁹ As noted above, five of the ten deadliest typhoons to hit the country since 1947 occurred in the past decade, killing tens of thousands of people and causing extensive economic and physical damages. The most devastating was Typhoon Haiyan, which claimed more than 7,000 lives and displaced more than four million people.³⁰ Scientists have determined that Typhoon Haiyan was the strongest tropical cyclone in recorded history and that a combination of climate change-related factors (sea level rise and warmer ocean

²⁴ International Development Research Centre (IDRC), *Parts of Philippines May Submerge Due to Global Warming*, SCIENCE DAILY, June 6, 2016; Aya Lowe, *Rapid Rise in Sea Levels Makes Philippine More Vulnerable to Natural Disasters*, CHANNEL NEWS ASIA, May 28, 2015, <http://www.channelnewsasia.com/news/asiapacific/rapid-rise-in-sea-levels/1877242.html>.

²⁵ The impacts of sea level rise will be exacerbated by physical, social, and economic vulnerabilities in the Philippines. See S. Dasgupta et al., *Sea-level Rise and Storm Surges: A Comparative Analysis of Impacts in Developing Countries*, Policy Research Working Paper 4901 (World Bank 2009).

²⁶ IPCC WGI (2013), *supra* note 22, at 107. There is less consensus on predictions of how climate change will affect extra-tropical cyclones, but some studies have found that climate change will likely increase precipitation levels and wind speed for these cyclones as well. See, e.g., Lennart Bengtsson et al., *Will Extra-Tropical Storms Intensity in a Warmer Climate?* 22 JOURNAL OF CLIMATE 2276 (2009).

²⁷ WMO (2013), *supra* note 2.

²⁸ Graciano Yumul Jr. et al., *Tropical Cyclone-Southwest Monsoon Interaction and the 2008 Floods and Landslides in Panay Island, Central Philippines: Meteorological and Geological Factors*, 62(3) NATURAL HAZARDS 827 (2012).

²⁹ PAGASA (2011), *supra* note 10, at 17; A. Yusuf & H. Francisco (2010), *supra* note 18; Thelma Cinco et al., *Observed Trends and Impacts of Tropical Cyclones in the Philippines*, 36(14) INTERNATIONAL JOURNAL OF CLIMATOLOGY 4638 (2016).

³⁰ ANGELA SHERWOOD ET AL., RESOLVING POST-DISASTER DISPLACEMENT: INSIGHTS FROM THE PHILIPPINES AFTER TYPHOON HAIYAN, 1 (Brookings Institution & IOM 2014).

temperatures) contributed to the intensity of the storm.³¹ The Philippines will likely experience even more severe tropical cyclones as temperatures increase,³² the damages of which will be exacerbated by sea level rise and more severe monsoons.

5. *Impaired Ecosystems*

Even under the intermediate emissions scenarios considered by the IPCC, there is a “high risk” that climate change will cause “abrupt and irreversible regional-scale change in the composition, structure, and function of terrestrial and freshwater ecosystems” in this century.³³ Drivers of ecosystem changes include gradual shifts in temperature and precipitation patterns, sea level rise, and extreme weather events. Many plant and animal species have already moved their ranges and changed their behavior in response to observed climate change over recent decades, but many others will be unable to move quickly enough or otherwise adapt to changing climactic conditions.³⁴ Thus, the IPCC predicts that climate change will “reduce the populations, vigor, and viability” of many species, especially those with spatially restricted populations, and will increase the extinction risk for many species.³⁵

“Forest dieback” is a major concern for terrestrial ecosystems, as this has potentially significant impacts on climate, biodiversity, water quality, wood production, and livelihoods.³⁶ Increased tree death has already been observed in many places worldwide, and there is high confidence that this can be attributed to climate change in some regions.³⁷

Coastal ecosystems are also particularly vulnerable to the effects of climate change. The composition of coastal and estuarine ecosystems will be altered by sea level rise, changes in precipitation and river flow, increased water temperatures,

³¹ Kevin Trenberth et al., *Attribution of Climate Extreme Events*, 5 NATURE CLIMATE CHANGE 725 (2015).

³² Nobuhito Mori & Tetsuya Takemi, *Impact Assessment of Coastal Hazards Due to Future Changes of Tropical Cyclones in the North Pacific Ocean*, 11 WEATHER AND CLIMATE EXTREMES 53 (2016).

³³ IPCC WGII (2014), *supra* note 8, at 276.

³⁴ *Id.* at 274-275.

³⁵ *Id.* at 275.

³⁶ *Id.*

³⁷ *Id.* at 276.

and ocean acidification, and this will contribute to a decline in biodiversity and ecosystem productivity along coastlines.³⁸

Finally, marine ecosystems are at risk as well. Climate change is already altering the physical, chemical, and biological properties of the ocean, and scientists have already observed large-scale distribution shifts of species and altered ecosystem composition as a result of ocean warming (e.g., the distribution of many fish and invertebrates have shifted poleward and/or to deeper, cooler waters).³⁹ It is likely that the spatial shifts of marine species will cause species richness to increase at mid- and high latitudes, and decrease at tropical latitudes. This has serious implications for marine productivity and food security in tropical areas.⁴⁰

Some of these ecosystem effects are already becoming apparent in the Philippines. For example, it is believed that ocean warming and acidification have contributed to the degradation of coral reefs near the Philippines coastline and the fisheries they support.⁴¹ The Philippines is also likely to experience adverse effects on its forest ecosystems due to prolonged dry periods, and this may threaten the livelihoods and health of the many communities that largely depend on the ecological services provided by those forests.⁴²

6. Effects on Buildings, Infrastructure, and Services

Impacts such as rising sea levels, coastal storms, heat stress, extreme precipitation, inland and coastal flooding, landslides, drought, increased aridity, and water scarcity “will have profound impacts on a broad spectrum of city functions, infrastructures, and services and will interact with and may exacerbate many existing stresses.”⁴³ Extreme weather events and sea level rise will damage and destroy buildings and infrastructure, particularly on coastlines (due to the compounding effects of coastal flooding, storms, and sea level rise). Rising temperatures and heavy precipitation will adversely affect critical transportation, water, and electric infrastructure in many areas. Decreases in precipitation and freshwater resources will pose a major challenge for the management of water supply and irrigation systems and hydroelectric dams.

³⁸ *Id.* at 368.

³⁹ *Id.* at 414.

⁴⁰ *Id.* at 414-415.

⁴¹ WORLD BANK, GETTING A GRIP ON CLIMATE CHANGE IN THE PHILIPPINES (2013) at 12-13.

⁴² PAGASA (2011), *supra* note 10, at 49.

⁴³ IPCC WGII (2014), *supra* note 8, at 556.

In the Philippines, prolonged and frequent rainfall, strong winds, higher waves, and temperature variations are expected to accelerate the structural fatigue and failure of physical infrastructure.⁴⁴ Extreme weather events, primarily floods and storms, have and will continue to cause severe damage to critical infrastructure.⁴⁵ The most vulnerable infrastructure includes the national road network, light rail transit systems in Metro Manila, port facilities, and power transmission systems.⁴⁶ Flooding events could also have a severe impact on schools, hospitals, and evacuation centers.⁴⁷ Decreases in rainfall and prolonged dry periods will also negatively impact irrigation systems, water supply systems, and hydroelectric facilities.⁴⁸

7. Expanding Disease Vectors

Increases in heavy rain and temperature will increase the risk of vector-borne diseases, such as Malaria and Dengue, in many parts of the world.⁴⁹ Tropical regions already suffer from the highest incidence of these diseases and are likely to see an increasing number of cases in areas that become warmer and wetter as a result of climate change.⁵⁰ This is certainly a concern for the Philippines, particularly during the monsoon season when heavier rains combined with higher temperatures will create suitable conditions for the propagation of mosquitos that carry these diseases.

Implications for Human Rights

It is well-understood that the impacts of climate change described above, along with others not detailed here, pose a serious threat to the full enjoyment of human rights. The United Nations Human Rights Council (UNHRC) has issued six resolutions recognizing the harmful effects of climate change on human rights and

⁴⁴ Philippines Department of Environmental and Natural Resources (DENR), *The Philippine Strategy on Climate Change Adaptation 2010-2022* (2010).

⁴⁵ See, e.g., WORLD BANK, PHILIPPINES TYPHOONS ONDOY AND PEPENG: POST-DISASTER NEEDS ASSESSMENT (2009) (finding that the damage to physical assets caused by the 2009 Ondoy and Pepeng typhoons reached Php 68.2 billion); WORLD BANK, CLIMATE RISKS AND ADAPTATION IN ASIAN COASTAL MEGACITIES: A SYNTHESIS REPORT (2010) (finding that the costs of future flooding in Manila, as exacerbated by climate change, could range from Php 5 billion to Php 112 billion).

⁴⁶ World Bank (2013), *supra* note 41, at 13.

⁴⁷ PAGASA (2011), *supra* note 10, at 49.

⁴⁸ *Id.*

⁴⁹ IPCC WGII (2014), *supra* note 8, at 725-26.

⁵⁰ *Id.*; Andrew K. Githeko et al., *Climate Change and Vector-Borne Diseases: A Regional Analysis*, 78(9) BULLETIN OF THE WORLD HEALTH ORGANIZATION 1136 (2000).

the obligations of states to take action to address these harmful effects.⁵¹ The Office of the High Commissioner for Human Rights (OHCHR), the UN Special Rapporteur on Human Rights and the Environment, and other UN subsidiary bodies and affiliated organizations have also issued numerous reports detailing the linkages between climate change and human rights law.⁵²

One of the most recent reports from the OHCHR contained the following key findings about climate change, human rights, and state obligations in this context:

- “Climate change and its impacts, including sea-level rise, extreme weather events and droughts have already inflicted human rights harms on millions of people.”⁵³
- “States must act to limit anthropogenic emissions of greenhouse gases (e.g., mitigate climate change), including through regulatory measures, in order to

⁵¹ UNHRC Res. 7/23, *Human Rights and Climate Change*, A/HRC/Res/7/23 (March 2008); UNHRC Res. 10/4, *Human Rights and Climate Change*, A/HRC/Res/10/4 (March 25, 2009); UNHRC Res. 18/22, *Human Rights and Climate Change*, A/HRC/Res/18/22 (Oct. 17, 2011); UNHRC Res. 26/27, *Human Rights and Climate Change*, A/HRC/Res/26/27 (July 15, 2014); UNHRC Res. 29/15, *Human Rights and Climate Change*, A/HRC/Res/29/15 (July 2, 2015); UNHRC Res. 32/33, *Human Rights and Climate Change*, A/HRC/RES/32/33 (July 18, 2016)

⁵² See, e.g., OHCHR, *Discussion Paper: The Rights of Those Disproportionately Impacted by Climate Change* (2016); OHCHR, *Taking Action on Human Rights and Climate Change* (2016); OHCHR & The Mary Robinson Foundation, *Human Rights, Migration, and Displacement Related to the Adverse Impacts of Climate Change* (2016); OHCHR, *Draft Summary of Recommended Actions on Human Rights and Climate Change from OHCHR Expert Meeting of 6-7 October* (2016); OHCHR, *Understanding Human Rights and Climate Change, Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change* (2015); UNHCR, *UNCHR, The Environment & Climate Change* (2015); OHCHR, *Report of the UN High Commissioner for Human Rights on the Outcome of the Seminar Addressing the Adverse Impacts of Climate Change on the Full Enjoyment of Human Rights*, A/HRC/20/7 (2012); OHCHR, *Applying a Human Rights-Based Approach to Climate Change Negotiations, Policies and Measures* (2010); OHCHR, *Report of the OHCHR on the Relationship Between Climate Change and Human Rights*, UN Doc. A/HRC/10/61 (2009); UN Independent Expert on Human Rights and the Environment, *Focus Report on Human Rights and Climate Change* (2014); UNITED NATIONS ENVIRONMENT PROGRAMME, *CLIMATE CHANGE AND HUMAN RIGHTS* (2015); Rabab Fatima et al., *Human Rights, Climate Change, Environmental Degradation and Migration: A New Paradigm*, IOM Issue in Brief, Issue No. 8 (March 2014). Many regional bodies also have issued decisions on the linkages between climate change and human rights. See African Commission on Human and Peoples’ Rights (ACHPR), *Resolution on Climate Change and Human Rights and the Need to Study its Impact in Africa*, ACHPR/Res.153(XLVI)09 (2009); Organization of American States, *General Assembly, Resolution 2429: “Human Rights and Climate Change in the Americas”*, AG/Res. 2429 (XXXVIII-O/08) (OAS June 3, 2008).

⁵³ OHCHR (2015), *supra* note 52, at 2.

prevent to the greatest extent possible the current and future negative human rights impacts of climate change.”⁵⁴

- States are accountable to rights-holders “for failure to adequately regulate the emissions of businesses under their jurisdiction regardless of where such emissions or their harms actually occur.”⁵⁵
- “Those affected [by climate change], now and in the future, must have access to meaningful remedies including judicial and other redress mechanisms.”⁵⁶

These findings are based on the rights and obligations enshrined in the Universal Declaration on Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social, and Cultural Rights, and other human rights instruments.

This section will review the relevant findings of UN bodies and other legal and technical experts detailing precisely how the impacts of climate change identified in the first part of this submission affect and will affect specific rights, including the right to life, right to health, right to clean water and sanitation, right to food, right to adequate housing, right to self-determination and development, and right to equality and non-discrimination.

1. Right to Life

The UDHR and the ICCPR recognize that every human being has an inherent right to life, liberty, and security of person.⁵⁷ The United Nations Human Rights Committee (“HR Committee”) has noted that the right to life “should not be interpreted narrowly” and that “the protection of this right requires that States adopt positive measures” to protect life from foreseeable harms.⁵⁸ For example, the UN Office of the High Commissioner for Human Rights (OHCHR) has maintained that states must “take reasonable preventative action to reduce exposure and

⁵⁴ *Id.* at 2.

⁵⁵ *Id.* at 3.

⁵⁶ *Id.*

⁵⁷ UDHR Art. 3, ICCPR Arts. 6, 9.

⁵⁸ HR Committee General Comment No. 6, ¶¶ 1, 5, UN Doc. HRI/GEN/1/Rev.1 (1994).

vulnerability and to enhance resilience, as well as to provide effective mitigation [for natural disasters]” to protect the right to life and other related rights.⁵⁹

OHCHR has recognized that climate change “clearly poses a threat to human life” due to the higher incidence of mortality associated with extreme weather events, increased heat, drought, and expanding disease vectors, among other things, and that states “must take effective measures to mitigate and adapt to climate change and prevent foreseeable loss of life.”⁶⁰ Such measures must include actions to protect the right to life and other human rights against climate-related harms caused by businesses.⁶¹ Businesses are also duty bearers in this context: “[t]hey must be accountable for their climate impacts and participate responsibly in climate change mitigation and adaptation efforts with full respect for human rights.”⁶²

Domestic tribunals have similarly found that the obligation to protect life entails a corresponding obligation to protect people from the harmful impacts of climate change, both through GHG mitigation and adaptation. For example, a tribunal in the Netherlands held that the Dutch government must take reasonable measures to mitigate GHG emissions in order to protect the lives and health of Dutch citizens.⁶³ Similarly, a tribunal in Pakistan held that the national government had violated the fundamental rights of its citizens, including the right to life, by failing to carry out the 2012 National Climate Policy and Framework.⁶⁴ A group of youth plaintiffs in the United States (U.S.) have also brought suit alleging that the federal government’s failure to regulate the production and use of fossil fuels in

⁵⁹ OHCHR, *Organization profile: Policies and Programmes in DRR*, www.preventionweb.net/english/professional/contacts/profile.php?id=1370. See also UNHRC, Promotion and Protection of the Rights of Indigenous Peoples in Disaster Risk Reduction, Prevention and Preparedness Initiatives, Study by the Expert Mechanism on the Rights of Indigenous Peoples, ¶ 10, UN Doc. A/HRC/27/66 (Aug. 7, 2014) (same); Budayeva and Others v. Russia, App. Nos. 15339/02, 21155/02, 20058/02, 11673/02 and 1543/02, Eur. Ct. H.R. (March 20, 2008) (interpreting the right to life as requiring states to take reasonable measures to protect citizens against the reasonably foreseeable effects of natural disasters); Öneriyildiz v. Turkey, 2004-XII European Court of Human Rights 1 (same)).

⁶⁰ OHCHR (2015), *supra* note 52, at 13-14.

⁶¹ *Id.* at 4.

⁶² *Id.*

⁶³ The key question in this case was whether the Dutch government had violated its duty of care to its citizens (a duty embedded in domestic law rather than international human rights law), but, the court referred to jurisprudence on the human right to life in order to determine what “standard of care” was appropriate with regards to climate-related injuries. District Court of the Hague, *Judgment: Urgenda Foundation v. Kingdom of the Netherlands Regarding the failure of the Dutch State to take sufficient actions to prevent dangerous climate change*, ¶ 4.74 (Urgenda Foundation 2015).

⁶⁴ Ashgar Leghari v. Federation of Pakistan, Lahore High Court Green Bench (W.P. No. 25501/2015) (Sept. 15, 2015).

the U.S. violates their rights to life, liberty, and property under the U.S. Constitution.⁶⁵ Although the outcome of that case has not yet been decided, the reviewing court recently rejected a motion to dismiss the case and held that these were justiciable claims that could be properly settled by the court.⁶⁶

The findings of the OHCHR and these domestic tribunals are supported by a plethora of evidence about the life-threatening effects of climate change. The IPCC has noted that the risk of extreme weather events and resulting endangerment of human lives is “moderate to high at temperatures of 1°C to 2°C above pre-industrial levels”⁶⁷ and significantly more lives will be at risk if we exceed 2°C in warming. According to the World Health Organization (WHO), climate change is expected to cause approximately 250,000 additional deaths per year between 2030 and 2050 due to increases in malnutrition, malaria, dengue, diarrhea and heat stress alone.⁶⁸ Taking a broader look at climate-related causes of death, a study commissioned by the Climate Vulnerable Forum found that climate change is already responsible for approximately 400,000 deaths per year and that number is expected to rise to 700,000 deaths per year by 2030.⁶⁹ These mortality estimates are based the direct effects of climate change, such as extreme weather events, flooding, heat waves, disease, water shortages, and food shortages. Climate change can also affect mortality in other ways that are more difficult to quantify – for example, by undermining livelihoods and displacing people from their homes.

In the Philippines, the most significant climate-related threats to life include observed and projected increases in storm intensity, extreme rainfall, flooding, and landslides, the effects of which will be exacerbated by sea level rise in coastal areas, as well as increased maximum temperatures and heat waves. The possibility of more severe or prolonged droughts is also a major concern for many regions in the Philippines.⁷⁰ Thus far, the most visible impact on the right to life in the

⁶⁵ First Amended Complaint for Declaratory and Injunctive Relief, *Kelsey Cascadia Rose Juliana vs. United States of America*, Case No. 6:15-cv-01517-TC (D. Ore. Sept. 15, 2015).

⁶⁶ Opinion and Order, *Kelsey Cascadia Rose Juliana vs. United States of America*, Case No. 6:15-cv-01517-TC (D. Ore. Nov. 10, 2016).

⁶⁷ IPCC, CLIMATE CHANGE 2014: SYNTHESIS REPORT (Rajendra K. Pachauri et al. eds., IPCC 2014) at 19.

⁶⁸ WHO, QUANTITATIVE RISK ASSESSMENT OF THE EFFECTS OF CLIMATE CHANGE ON SELECTED CAUSES OF DEATH, 2030S AND 2050S (2014).

⁶⁹ DARA AND CLIMATE VULNERABLE FORUM, A GUIDE TO THE COLD CALCULUS OF A HOT PLANET, 2nd ed. (2012) at 17.

⁷⁰ For more on this, please refer to the discussion of the “right to water” below.

Philippines has been the increased incidence of severe storms like Typhoon Haiyan, which have claimed tens of thousands of lives in the past decade.⁷¹

2. *Right to Health*

The ICESCR enshrines “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”⁷² The UDHR also recognizes a right to health as part of the right to an adequate standard of living.⁷³ As with all of the rights discussed here, states must take positive measures to protect the right to health, particularly for vulnerable and marginalized groups,⁷⁴ and businesses must refrain from undertaking activities that infringe on this right.⁷⁵

Based on studies from the IPCC, WHO, and other international bodies, OHCHR has concluded that climate change has negative impacts on the right to health, and that states “have clear obligations to take measures to prevent and remedy the negative impacts of climate change on the right to health.”⁷⁶ The key impacts of climate change on health include: heat-related health impacts, which not only increase the incidence of heat-related mortality but also contribute to respiratory and cardiovascular disease; extreme weather events and natural disasters, which cause injury, disability, and disease as well as death; expanding disease vectors; nutrition deficits linked to food shortages and loss of livelihoods; violent conflict associated with resource scarcity and displacement of people due to climate change; and adverse impacts on mental health owing to the physical and mental stress caused by various climate-related phenomena (e.g., displacement from homes due to sea level rise).⁷⁷ Recognizing that these negative health impacts “will increase exponentially with every incremental increase in warming,” OHCHR has stated that “[l]imiting global warming to the greatest extent possible

⁷¹ Gwen de la Cruz, *Worst Natural Disasters in the Philippines*, RAPPLER (Aug. 1, 2014), <http://www.rappler.com/move-ph/issues/disasters/64916-worst-natural-disasters-philippines>.

⁷² ICESCR Art. 12(1).

⁷³ UDHR Art. 25.

⁷⁴ OHCHR and WHO, *The Right to Health, Fact Sheet No. 31* (2008), <http://www.ohchr.org/Documents/Publications/Factsheet31.pdf>.

⁷⁵ OHCHR, *GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS* (2011) at 13.

⁷⁶ OHCHR, *Analytical Study on the Relationship Between Climate Change and the Human Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*, ¶ 45, UN Doc. A/HRC/32/23 (May 6, 2016).

⁷⁷ *Id.* at ¶¶ 5-8, 12-22 (citing WHO, *Climate Change and Health, Fact Sheet NO. 266*; IPCC WGII (2014), *supra* note 8, at 713).

and achieving the target of 1.5°C above pre-industrial levels should... be the objective of all climate action.”⁷⁸

Countries in Asia and the Pacific are particularly vulnerable to public health problems caused by climate change. This is due in large part to the tropical climate, which means that these countries experience greater risks from more severe tropical cyclones, more intense monsoons, expanding disease vectors, and heat waves. Another key concern in the Philippines is malnutrition due to disruptions in food supply caused by rising temperatures, drought, and extreme weather events.⁷⁹ There is evidence that climate change has already contributed to severe droughts in the Philippines over the past three decades, which have in turn contributed to increases in food scarcity as well as rural unrest and mass migration (with corresponding impacts on public health).⁸⁰ Observed increases in the frequency of severe typhoons, flooding events, and heat waves have also contributed to adverse public health impacts in the Philippines.⁸¹

3. Right to Clean Water and Sanitation

The UN General Assembly has recognized that all persons have a “right to safe and clean drinking water and sanitation that is essential for the full enjoyment of life and all human rights.”⁸² Climate change will seriously affect the availability of freshwater through reductions in precipitation and a higher risk of drought; reductions in snowpack driven by rising temperatures and changes in the type of precipitation (rain instead of drought); increased evapotranspiration that results from higher temperatures; sea level rise, which will contribute to saltwater intrusion into freshwater aquifers; and more intense storms, rainfall, and flooding, which can lead to contamination of freshwater sources. Reductions in freshwater availability, flooding, and sea level rise can also adversely affect sanitation systems (e.g., when wastewater treatment plants flood and when sufficient water is not available for hygienic needs). With four degrees of warming, the increase in water scarcity could have devastating results on food production and public health in many countries.

⁷⁸ *Id.* at ¶ 55.

⁷⁹ PAGASA (2011), *supra* note 10, at 51.

⁸⁰ Warren (2013), *supra* note 17.

⁸¹ Xerxes T. Seposo et al., *Evaluating the Effects of Temperature on Mortality in Manila City (Philippines) from 2006-2010 Using a Distributed Lag Nonlinear Model*, 12(6) INT. J. ENVIRON. RES. PUBLIC HEALTH 6842 (2015); de la Cruz (2014), *supra* note 71.

⁸² UN General Assembly, Resolution Adopted by the General Assembly on 28 July 2010: The Human Right to Water and Sanitation, ¶ 1, UN Doc. A/RES/64/292 (Aug. 3, 2010).

The higher incidence of drought is a major concern for the Philippines. Previous droughts have caused massive crop failures and water shortages.⁸³ In April 2016, it was reported that 42% of the country was experiencing drought or dry spells and 39 provinces, cities, municipalities and villages had declared a state of emergency as a result.⁸⁴ As noted above, scientists have linked climate change to decreases in rainfall during the dry season and an increased incidence of droughts in the Philippines and elsewhere. Going forward, the Philippines and many other countries will almost certainly experience further decreases in dry season rainfall and increases in drought conditions.⁸⁵

4. Right to Food

The right to adequate food is enshrined in both the UDHR and the ICESCR.⁸⁶ The Committee on Economic, Social and Cultural Rights has described the right to adequate food as being realized when every person, “alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement.”⁸⁷ The existence of this right “places legal obligations on States to overcome hunger and malnutrition and realize food security for all.”⁸⁸

OHCHR has recognized that climate change is affecting food production,⁸⁹ and that States must “make efforts to enable sustainable production of food to ensure the availability of food for future generations, considering factors such as population growth, impact of possible climate change, and the available of natural resources.”⁹⁰ Indeed, climate change has profound implications for food production and food security. According to the IPCC, the effects of climate change on crop and terrestrial food production are already evident. Changes in temperature and rainfall precipitation have negatively affected wheat and maize production in lower latitudes.⁹¹ There is also evidence that extreme weather events (storms and

⁸³ World Bank (2013), *supra* note 41, at 12.

⁸⁴ International Federation of Red Cross and Red Crescent Societies (IFRC), *Philippines: Drought and Dry Spells*, Information Bulletin no. 1 (April 29, 2016).

⁸⁵ PAGASA (2011), *supra* note 10.

⁸⁶ UDHR Art. 25; ICESCR Art. 11.

⁸⁷ UN Economic and Social Council, Committee on Economic, Social, and Cultural Rights, *Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social, and Cultural Rights*, UN Doc. E/C.12/1999/5 (May 12, 1999) at ¶ 6.

⁸⁸ OHCHR, *The Right to Adequate Food, Fact Sheet No. 34* (2010) at 5.

⁸⁹ *Id.* at 22.

⁹⁰ *Id.*

⁹¹ IPCC WGII (2014), *supra* note 8, at 491.

flooding) have impacted food production, but it is not possible to say that these specific events were caused by climate change (although climate change will increase the likelihood of such events).⁹² Climate change is also adversely impacting the productivity of many fisheries as fish migrate to cooler and deeper waters in response to warming ocean temperatures.⁹³

In future decades, climate change will adversely impact the production of major crops (wheat, rice, and maize) in both tropical and temperate regions.⁹⁴ Even in the near term, the impacts on global food security could be devastating—for example, 10% of the projected impacts on food security under a 2°C warming scenario showed yield losses of more than 25% for the period 2030-2049.⁹⁵ Greater losses are expected after 2050.⁹⁶ The food security risk will be greatest in low-latitude countries, where there is high confidence that crop production will be “consistently and negatively” affected by climate change in a 2°C warming scenario (and fishery production will also decline).⁹⁷ In fact, the IPCC has found that negative yield impacts in the tropics are *very likely* regardless of adaptation or emissions scenarios.⁹⁸ The severity of these impacts will of course increase under higher emissions scenarios and greater levels of warming.

Agriculture in the Philippines could be “severely affected by temperature changes coupled with changes in rain regimes and patterns.”⁹⁹ Historically, crop yields in the Philippines have declined whenever temperatures have exceeded certain threshold values, which have been and will be increasingly exceeded as a result of climate change.¹⁰⁰ Observed decreases in rainfall during the dry seasons have also led to declines in crop yields over the past few decades.¹⁰¹ Going forward, the effect of rising temperatures and decreased rainfall on crop production could be devastating: one study found that 2 degrees of warming would reduce rice yield in the Philippines by 22%;¹⁰² another study found that climate change may

⁹² *Id.*

⁹³ *Id.* at 493.

⁹⁴ *Id.* at 488.

⁹⁵ *Id.* at 504.

⁹⁶ *Id.* at 488, 504.

⁹⁷ *Id.*

⁹⁸ *Id.* at 505.

⁹⁹ PAGASA (2011), *supra* note 10, at 50.

¹⁰⁰ *Id.*

¹⁰¹ Warren (2009), *supra* note 17; IFRC (2016), *supra* note 84.

¹⁰² C.R. Escaño & L. V. Buendia, *Climate Impact Assessment for Agriculture in the Philippines: Simulation of Rice Yield Under Climate Change Scenarios*, in IMPLICATIONS OF CLIMATE CHANGE FOR INTERNATIONAL AGRICULTURE: CROP MODELING STUDIES (U.S EPA 1994).

reduce rice yield in the Philippines by up to 75% in 2100 as compared with 1990 levels.¹⁰³

There are a variety of other ways in which climate change has and will affect food production. For example, higher temperatures and rainfall changes will likely affect the incidence and outbreaks of pests and diseases, both in plants and animals.¹⁰⁴ There is also concern that extreme weather events and flooding will continue to damage crops, leading to further impairment of food production.¹⁰⁵ As of 2011, the annual damage to agriculture from typhoons, droughts, and floods has already reached Php 12 billion (3% of total agricultural production).¹⁰⁶ These impacts on agricultural systems will be compounded by the loss of land to sea level rise. The Philippines will also likely experience a decline in fishery productivity as fish migrate to cooler and deeper waters.¹⁰⁷ Seaweed production could also be adversely impacted.¹⁰⁸

5. Right to Adequate Housing

The UDHR and the ICESCR recognize that all persons have a right to adequate housing, as part of the right to an adequate standard of living.¹⁰⁹ OHCHR has noted that the right to adequate housing entails the following freedoms and entitlements:

- Protection against forced evictions and the arbitrary destruction and demolition of one's home;
- The right to be free from arbitrary interference with one's home, privacy and family;
- The right to choose one's residence, to determine where to live and to freedom of movement

¹⁰³ ASIAN DEVELOPMENT BANK, THE ECONOMICS OF CLIMATE CHANGE IN SOUTHEAST ASIA: A REGIONAL REVIEW (2009).

¹⁰⁴ *Id.*

¹⁰⁵ PAGASA (2011), *supra* note 10, at 50.

¹⁰⁶ PHILIPPINES CLIMATE CHANGE COMMISSION (CCC), NATIONAL CLIMATE CHANGE ACTION PLAN 2011-2028 (2011).

¹⁰⁷ PAGASA (2011), *supra* note 10, at 50.

¹⁰⁸ *Id.*

¹⁰⁹ UDHR Art. 25; ICESCR Art. 11(1).

- Security of tenure;
- Housing, land and property restitution;
- Equal and non-discriminatory access to adequate housing; and
- Participation in housing-related decision-making at the national and community levels.¹¹⁰

States “must make every possible effort, within their available resources, to realize the right to adequate housing and to take steps in that direction without delay”¹¹¹ and must prevent third parties from interfering with the right.¹¹²

Sea level rise and other climate-related harms will force millions of people from their homes during this century.¹¹³ Some people have already lost their homes to sea level rise and extreme weather events, and entire communities are now facing the imminent prospect of displacement.¹¹⁴ In the Philippines, more severe storms and flooding events linked to climate change have already displaced millions of people from their homes. Typhoon Haiyan alone displaced more than four million people and damaged or destroyed more than one million homes.¹¹⁵ Without adaptation, the IPCC projects with high confidence that “hundreds of millions of people will be affected by coastal flooding and will be displaced due to land loss by year 2100.”¹¹⁶ Drought and desertification could lead to the displacement of millions more. Many people may also migrate due to adverse impacts on their livelihoods associated with declining agricultural yields, the destruction of ecosystem services, and resource shortages caused by climate change.

¹¹⁰ OHCHR, *The Right to Adequate Housing, Fact Sheet no. 21/Rev.1* (2009) at 3.

¹¹¹ *Id.* at 7.

¹¹² *Id.* at 33.

¹¹³ INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM), *MIGRATION, ENVIRONMENT AND CLIMATE CHANGE: ASSESSING THE EVIDENCE* (2009).

¹¹⁴ Anthony Oliver-Smith, *Vulnerability of Coastal Peoples: Responding to the Local Challenges of Global Climate Change in the 21st Century*, INTERDISCIPLINARY SECURITY CONNECTIONS Publication No.7/2009 (2009).

¹¹⁵ SHERWOOD ET AL. (2014), *supra* note 30, at 1.

¹¹⁶ IPCC WGII (2014), *supra* note 8, at 364.

Those who are displaced temporarily as a result of extreme weather events will frequently return to homes that are destroyed or no longer habitable.¹¹⁷ Permanently displaced persons will face even bleaker prospects: they may be secure adequate and permanent housing a timely manner, the options for resettlement will probably be highly restricted, and there is no guarantee that they will be given any restitution for the loss of their housing, land, and property.

Displacement due to sea level rise is a major concern in the Philippines, due to the rapid increase in sea levels (which, as noted above, is five times the global average) and the number of people who live on the coast.¹¹⁸ More severe typhoons and floods have been and will continue to be a significant driver of displacement as well. Decreased agricultural yields and inadequate job opportunities in the agricultural sector may also result in migration from rural to urban areas in the Philippines, putting additional pressure on already depressed urban areas and mega cities.¹¹⁹

6. Right to Self-Determination and Development

The ICESCR and ICCPR recognizes that “[a]ll peoples have the right to self-determination” and “[b]y virtue of that right they freely determine their political status and freely pursue their economic, social, and cultural development.”¹²⁰ The UN General Assembly affirmed this principle when it adopted the 1986 Declaration on the Right to Development, which stated that the “right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.”¹²¹ The Declaration also recognized that the right of peoples to self-determination includes “the exercise of their inalienable right to fully sovereignty over all their natural wealth and resources.”¹²² Private actors, as well as states, have a duty to create conditions favorable to the

¹¹⁷ SHERWOOD ET AL., (2014), *supra* note 30.

¹¹⁸ H. Brecht et al., *Sea-level rise and storm surges: High stakes for a small number of developing countries*, 21(1) JOURNAL OF ENVIRONMENT DEVELOPMENT 120 (2012)

¹¹⁹ PAGASA (2011), *supra* note 10, at 50.

¹²⁰ ICESCR Art. 1(1); ICCPR Art. 1(1).

¹²¹ Declaration on the Right to Development, Art. 1(1).

¹²² *Id.* Art. 1(2).

realization of the right to development, and states have a corresponding duty to protect the right to development against infringement by non-state actors.¹²³

As discussed above, climate change will make it considerably more difficult for governments and people to pursue forms of development in which all human rights and fundamental freedoms can be fully realized. It will interfere with key economic sectors and government services, including energy, water services, transport, agriculture and livestock, forestry, fisheries, and tourism, and degrade the natural resource base that many people depend on for their lives and livelihoods. Access to food, water, and housing will all be impaired. And countries will not enjoy full sovereignty over the management of their natural resources, insofar as these resources will be impaired by climate change.

In these ways, climate change poses a serious barrier to sustainable development, particularly in countries like the Philippines that will experience the brunt of its negative impacts.¹²⁴ The costs of climate change impacts will be enormous in the Philippines, both in terms of monetary damages and damages to human lives and livelihoods. The Philippines has already suffered major economic losses as a result of severe typhoons over the past decade (e.g., Typhoon Haiyan caused approximately \$2 billion in damages).¹²⁵ The Asian Development Bank (ADB) estimates that, under a business-as-usual emissions trajectory, the Philippines will suffer a mean loss of 2.2% of gross domestic product (GDP) by 2100 when market impacts only (mainly related to agriculture and coastal zones) are considered, a 5.7% loss if non-market impacts (mainly related to health and ecosystems) are included, and a 6.7% loss if catastrophic risks are considered.¹²⁶

7. Right to Equality and Non-Discrimination

The UDHR recognizes that “[a]ll human beings are born free and equal in dignity and rights” and that “[e]veryone is entitled to all the rights and freedoms set forth in this Declaration without distinction of any kind.”¹²⁷ The ICCPR and ICESCR similarly recognize that the rights enumerated therein must be exercised

¹²³ OHCHR, *Frequently Asked Questions on the Right to Development*, Fact Sheet no. 37 (2016) at 4-5.

¹²⁴ Press Release, World Bank, *Philippines: Climate Change a Fundamental Threat to Development* (May 23, 2014), <http://www.worldbank.org/en/news/press-release/2014/05/23/climate-change-a-fundamental-threat-to-development-world-bank>.

¹²⁵ Philippines National Disaster Risk Reduction and Management Council, *Final Report on Effects of Typhoon “Yolanda” (Haiyan)* (2014).

¹²⁶ ADB, *THE ECONOMICS OF CLIMATE CHANGE IN SOUTHEAST ASIA: A REGIONAL REVIEW* (2009) at 82.

¹²⁷ UDHR Arts. 1 and 2.

and protected without discrimination of any kind.¹²⁸ Recognizing that certain groups are more likely to endure violations of their human rights (e.g., women, children, and indigenous peoples), the UN has established more detailed frameworks for the protection of these groups – specifically: The Convention on the Elimination of All Forms of Discrimination Against Woman (CEDAW), the Convention on the Rights of the Child (CRC), the Convention on the Rights of Persons with Disabilities, and the UN Declaration on the Rights of Indigenous Peoples.

The OHCHR has recognized that the negative impacts of climate change “will disproportionately affect individuals, groups and peoples in vulnerable situations, including women, children, older persons, indigenous peoples, minorities, migrants, rural workers, persons with disabilities, the poor, and those living in vulnerable areas (e.g., small islands, riparian and low-lying coastal zones, arid regions, and the poles).”¹²⁹ The IPCC has similarly found that “people who are socially, economically, politically, institutionally or otherwise marginalized are especially vulnerable to climate change.”¹³⁰ The vulnerability of these groups is a product of both heightened exposure to climate change impacts as well as limited capacity to adapt to those impacts.

In the Philippines, farmers and fishermen – some of the poorest groups (with poverty incidences of 45% and 50% respectively) – are particularly vulnerable to the impacts of climate change due to their high dependence on natural resources that are affected by climate change and their lack of resources to adapt, e.g., by finding new livelihoods.¹³¹ These groups have already been disproportionately affected by sudden-onset disasters such as Typhoon Haiyan,¹³² as well as more gradual changes brought about by climate change (e.g., reductions in precipitation and rising ocean temperatures).¹³³ People living in informal urban settlements are also among the most vulnerable to climate change, due both to the direct impacts of climate change and the additional pressure placed on urban systems and

¹²⁸ ICESCR Art 2(2); ICCPR Art. 2(1).

¹²⁹ OHCHR, *The Rights of Those Disproportionately Impacted by Climate Change* (2016) at 1.

¹³⁰ IPCC WGII (2014), *supra* note 8, at 6.

¹³¹ World Bank (2013) *supra* note 41, at 13.

¹³² See FAO, *Severe Damage to Agriculture and Fisheries After Haiyan* (Nov. 12, 2013); OXFAM & NFR, *Rebuilding Fishing Communities and Fisheries: Post-Haiyan Reconstruction in the Philippines*, Joint Agency Briefing Note (Feb. 12, 2014).

¹³³ See Dennis Jay Santos, *El Niño hits Philippines Farmers with Drought, Rats*, IRIN (Feb. 19, 2016); Greenpeace, *Philippines Seas in Crisis: Imminent Threats from Climate Change, Pollution and Overfishing* (Oct. 25, 2012); Pierre Fidenci, *Colossal Coral Bleaching Kills up to 95% of Corals in the Philippines*, MONAGABAY, Sept. 23, 2010.

livelihoods.¹³⁴ As the world gets warmer, it will become increasingly difficult for the government of the Philippines to fulfill its human rights obligations with respect to these people.

International Law Sources of the Commission’s Jurisdiction and Respondents’ Obligations

Petitioners in this case have asked “whether or not the Respondent Carbon Majors must account for...the human rights implications of climate change and ocean acidification.”¹³⁵ The question requires the Commission to consider, among other things, its ability to exercise jurisdiction to investigate the human rights implications of domestic harms caused by private actors’ activities undertaken outside the Philippines.¹³⁶ International human rights law does not pose a jurisdictional bar to such an investigation. Indeed, international human rights law supports the Commission’s investigation of petitioners’ claim.

Based on states’ substantive human rights obligations, the CESCR, regional courts, and UN special rapporteurs have concluded that states have a general duty not only to “adopt legal and institutional frameworks that protect against, and respond to, environmental harm that may or does interfere with the enjoyment of human rights” but also to ensure that these frameworks include protections to prevent third parties from creating environmental harms that interfere with the exercise of human rights.¹³⁷ Such protections necessarily include access to an adequate remedy, judicial or non-judicial, when human rights are violated by third party, non-state actors.

Similarly, OHCHR has concluded that “[s]tates should take adequate measures to protect all persons from [climate-related] human rights harms caused by business” and that this entails, among other things, “tak[ing] measures to ensure that those harmed by climate change... have access to effective remedies including

¹³⁴ *Id.*

¹³⁵ Greenpeace Petition at 17. Note that this is an administrative proceeding rather than a judicial proceeding, and the Commissions’ ability to exercise jurisdiction is based on Rule 2 of the Omnibus Rules of Procedure of the Commission on Human Rights, which states that the Commission “shall take cognizance of and investigate... all forms of human rights violations and abuses involving civil and political rights.”

¹³⁶ See Greenpeace Petition at 9-11 (addressing issues of extraterritoriality).

¹³⁷ HRC, *Report of the Independent Expert on the issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, John H. Knox, ¶¶ 46-7, A/HRC/25/53 (Dec. 30, 2013).

judicial and other redress mechanisms.”¹³⁸ Further reinforcing the idea that courts and other tribunals should exercise jurisdiction over disputes involving climate-related human rights violations caused by non-state actors, OHCHR has recommended that civil society “bring appropriate actions to human rights mechanisms and courts to flesh out State *and business* obligations related to climate change.”¹³⁹

The core international human rights treaties do not directly address the obligations of private parties to respect human rights, but there are some emerging standards for non-state actors that countries are beginning to incorporate into domestic law, and that are under active discussion in international fora. These standards are set forth in the UN Guiding Principles on Business and Human Rights (the “Ruggie Principles”), proposed by UN Special Representative John Ruggie and endorsed by the UN Human Rights Council in June 2011.¹⁴⁰ The Ruggie Principles provide guidance to countries on how to fulfill their obligations in this context, and principles that are directly applicable to private actors. The foundational principles for private actors include:

1. Businesses should respect human rights by avoiding infringing on the human rights of others and addressing any adverse human rights impacts with which they are involved.
2. The rights that must be respected by businesses include, at minimum, the rights recognized in the International Bill of Rights (UDHR, ICCPR, ICESCR) and the principles concerning fundamental rights set out in the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work.
3. To meet their human rights responsibilities, businesses should implement policies and processes appropriate for their size and circumstances, so as to safeguard human rights in all aspects of their operation.

¹³⁸ OHCHR, *Draft Summary of Recommended Actions on Human Rights and Climate Change from OHCHR Expert Meeting of 6-7 October*, ¶¶ 49, 54 (2016).

¹³⁹ *Id.* ¶ 48 (emphasis added). See also *id.* ¶ 56 (“the courts should promote business accountability” with respect to climate-related harms).

¹⁴⁰ UNHRC Res. 17/4, *Human Rights and Transnational Corporations and Other Business Enterprises*, UN Doc. A/HRC/Res/17/4 (July 6, 2011).

4. Businesses should also carry out human rights due diligence, which includes assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses, and communicating how impacts are addressed.
5. Where businesses identify that they have caused or contributed to adverse impacts, they should provide for or cooperate in their remediation through legitimate processes.¹⁴¹

Consistent with these principles, OHCHR has affirmed that businesses, as human rights duty bearers, “must be accountable for their climate impacts and participate responsibly in climate change mitigation and adaptation efforts with full respect for human rights.”¹⁴²

The Ruggie Principles are not the only source to which the Commission can look for guidance on the nature and scope of Respondents’ obligations. The Oslo Principles on Global Obligations to Reduce Climate Change (Oslo Principles), compiled by a group of leading jurists and experts, state that “States and enterprises have an immediate moral and legal duty to prevent the deleterious effects of climate change,” and set forth a number of principles that apply specifically to both States and private actors, and to private actors alone.¹⁴³ For example, the Oslo Principles state that a business’s greenhouse gas emissions footprint must be consistent with global efforts to ensure that average surface temperature never exceeds pre-industrial temperature by more than 2°C.¹⁴⁴ In addition, the International Bar Association (IBA) published a recent report on advancing climate justice which contains recommendations on how corporations can implement the Ruggie Principles through the implementation of corporate responsibility policies and other actions.¹⁴⁵ Specifically, the IBA recommends that corporations “incorporate ISO standards in business GHG management programmes to ensure standardized, quantification of GHG emissions and promote good practice in environmental and energy management” and “require full disclosure of climate change impacts arising from the activities of all major

¹⁴¹ GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS, PART II: THE CORPORATE RESPONSIBILITY TO RESPECT HUMAN RIGHTS (2011).

¹⁴² OHCHR (2015), *supra* note 52, at 4.

¹⁴³ Oslo Principles on Global Obligations to Reduce Climate Change (2015).

¹⁴⁴ *Id.* at ¶ 6.

¹⁴⁵ IBA PRESIDENTIAL TASK FORCE ON CLIMATE CHANGE JUSTICE AND HUMAN RIGHTS, ACHIEVING JUSTICE AND HUMAN RIGHTS IN AN ERA OF CLIMATE DISRUPTION (2014).

subsidiaries and affiliates; and, as far as reasonably practicable, the corporation's supply chain."¹⁴⁶

To conclude: most human rights agencies and other stakeholders agree that businesses are human rights duty bearers, and that states have an obligation to provide judicial and other redress mechanisms for persons whose human rights are violated or infringed upon as a result of business activities. It is therefore reasonable for the Commission to conclude that it may exercise jurisdiction over the Carbon Majors listed in the Petitioner's brief.

Conclusion

Human rights law requires states to ensure that non-state actors within their jurisdiction do not violate human rights and to provide an adequate remedy for the derogation of human rights by such actors. The Carbon Majors identified in the Petitioners' brief are responsible for a considerable share of the emissions that contribute to global climate change – approximately 20% – and as such, they are responsible for a considerable share of the damage that has already occurred and will continue to occur as a result of climate change. As detailed in this submission, climate change will have a profoundly negative impact on the full enjoyment of fundamental human rights in the Philippines and other countries. The Commission should therefore grant the remedy sought by petitioners: hold the Carbon Majors accountable for their contribution to these impacts and request that other national governments do the same.

¹⁴⁶ *Id.* at 16.