Climate Change & Sustainability Lillie Bui and Mitchell Kloer

Climate change has had severe impacts on Asia and the Pacific Rim and will continue to negatively influence this region without regional and global cooperation towards combating its causes and effects. From rising tides to extreme weather to toxic air, the effects of climate change are affecting this region's health, economy, and land. It is a subject that impacts all nations of this region and requires full collaboration in order to address this growing issue.

The United Nations has set forth 17 sustainable development goals that are used to promote a more prosperous, clean, and healthy world. Of these goals, it is recognized that in order for other issues such as poverty, hunger, and inequalities to be addressed, we should simultaneously focus on climate change as it is a problem that transcends national borders and is directly tied to the future of our planet. In the acknowledgement of this global issue, the Paris Agreement was created through the United Nations Framework Convention of Climate Change (UNFCCC) to strengthen and coordinate the worldwide response to climate change. While global efforts, such as the Paris agreement, are absolutely necessary, it should also be a particularly significant concern in this region of Asia and the Pacific Rim because of how heavily it is affected by this issue and because of the region's relative lack of infrastructure to combat these effects.

Climate change has tremendously impacted much of this region in a number of different ways. In the most direct impact to the population is the effect on human health. Pollution, a prime example in this region, has critically diminished the population's health. Over 70% of all air pollution deaths occur in this region, and "4 billion people – 92 per cent of Asia and the Pacific's population – are exposed to levels of air pollution that pose a significant risk to their health" (Restoring; 25 Ways). The people of this region are dying and becoming ill as a result of this human-caused issue that has grown to become irreversible.

Expanding our view to the indirect impacts of climate change and unsustainable practices is the influence on the economy and the environment. The economy of many of the developing nations in this region will suffer because of the change of the climate with 9% of the South Asian economy being slashed every year by the end of the century (Climate). This is resulting from certain sectors of the economy such as agriculture, health and labor, and tourism that experience hardships as climate change rises. Although many countries are experiencing an economic boom thanks to non-environmentally conscious business practice, others have to face the consequences of it. Following this influence on economy, which is on a national level, is the changes of the environment of this region. One of the biggest environmental problems for this region concerns the islands of Oceania and the rising water and subsequent land loss. By the end of the century, the sea level could rise 65 centimeters (Global). This combined with the increase of extreme weather patterns could soon mean the deaths or displacement of the thousands of people inhabiting the hundreds of islands in Oceania. The impacts of climate change have left a scar deep within this region and within our planet, and if nothing is done to prevent it, Earth could soon become irreparably damaged.

Not only is this area greatly impacted by global warming, rising tides, and increasing occurrences of extreme weather, but there are also nations within this region that are major contributors and sources of climate change and unsustainable practices.

One of the leading causes of climate change is greenhouse gas emissions, which come in quite an abundance in this region. Greenhouses gases come from many different sources, the main ones being industry, deforestation, and vehicular emissions. China is at the forefront of industrial emissions with emissions that are "responsible for 40-50% of the PM2.5 levels in the region, with steel and cement the largest emitting sectors. PM2.5 refers to tiny particles of pollution small enough to pass through the lung into the bloodstream" (Myllyvirta). China, while being a leader in industrial emissions, also significantly contributes to climate change through automotive emissions with over 300 million registered vehicles. Deforestation is a common practice in this region for both agricultural practices and urbanization.; however it "produces about 24% of global greenhouse gas emissions" (Deforestation). This is a devastating practice of this region as most of the land being ripped out are peatlands, bogs that release massive amounts of carbon. The overproduction and overconsumption of plastic products has decimated large parts of the waters in this region, as it is estimated "that 1.15 to 2.41 million tonnes of plastic are entering the ocean each year from rivers" (Ocean). Many of these countries rely on fishing as a large sector of their economy and with the millions of tonnes of plastic within the ocean it could soon pose to be a danger for consumption, thus ruining many people's main source of income. Climate change is an indisputable reality caused mainly by human factors, and if we do not act soon we will forever reap the deadly reverberations of it.

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