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The Climate Crisis and Rising Threats to International Secu	ırity
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Abstract

A rapidly approaching new reality is being introduced to Earth. Everyday life as we know it has already begun to change and will continue to do so as long as climate change is persisting. Climate change, whether it is natural or anthropogenic, has many ramifications to human life. It does not mean there will always be warm weather, but rather more extreme weather events, the acidification of the ocean, the melting of ice, and the rising of global sea levels. With these effects comes even more consequences. When global sea levels rise it will destroy shorelines, displace people from their homes, poison agriculture with salt, and that is not the end. Islands will begin to shrink and eventually be overtaken with water, and many people will be displaced. But what further implications do rising sea levels and its consequences have for the global community? As global sea levels rise, more global citizens will be seeking refuge, which will cause international security threats around the globe. This can include resource shortages and scarcity, prejudice against migrants, and violence. This paper will draw connections between climate change, the rising of sea levels, mass migration, and international security threats.

Introduction

Climate change is not a new phenomenon introduced in the 21st century. It is not something humans inherently caused, but rather a continuous cycle. According to NASA, in the last 650,000 years there have been seven cycles of glacial advance and retreat, with the abrupt end of the last ice age about 11,700 years ago marking the beginning of the modern climate era, and of human civilization. With that being said, that does not mean humans do not have a huge part in propelling and worsening the effects of climate change in the modern era. While climate change is cyclical in most respects, "carbon dioxide from human activity is increasing more than

250 times faster than it did from natural resources after the last ice age" (climate.nasa.gov). This means human activity starting from approximately the mid-20th century, has had an enormous impact on the cyclical nature of climate change, causing the Earth to warm rapidly at an unprecedented rate. This climate crisis has many different aspects to it including, the warming ocean, melting ice sheets and glaciers, extreme weather events, ocean acidification, and global sea level rising. First world countries are mostly to blame for the acceleration of the climate crisis, but often they take the least amount of responsibility on the matter, because the effects of climate change and global warming will not affect these countries as severely as it will affect others. Countries close to the equator, small island countries, and coastal countries will be hit the hardest by climate change, their coasts will disappear, it will become unbearable hot outside, possibly even resulting in deaths. Many first world countries do not realize that the climate crisis has huge consequences that are a direct result of the effects of global warming. With an increase in extreme weather events comes more mass destruction to coastlines, causing a massive move inland. A rise in temperature can cause mass crop failure, and food shortages or scarcity which can in turn cause violence and threats to security. Finally, one of the most important effects of global warming is the melting of glaciers and ice sheets, which causes global sea levels to rise.

The global sea level has risen about 8 inches in the last century, and the rate of increase accelerates every year. When the sea levels rise, it can cause destructive erosion, wetland flooding, aquifer and agricultural soil contamination with salt, lost habitat for fish, birds, and plants, shorelines will disappear, small islands will shrink and possibly be submerged altogether, people will be forced to either migrate, or stay in their sinking country (nationalgeographic). What further implications do rising sea levels and its consequences have for the global community? As global sea levels rise, more global citizens will be seeking refuge, which will

cause international security threats around the globe. This can include resource shortages and scarcity, prejudice against migrants, and violence.

I acknowledge that migration itself is not an inherent threat to international security, and that in the past, the perception of mass migration has and probably always will be a negative one. Especially in recent years with the rise in international migrants, many countries put forth a security agenda. For example, in the United States, the Trump administration introduced the narrative that migrants were criminals, terrorists, and they were stealing our jobs. They banned muslims from migrating to the country, and they withheld opportunities from many others. The migrants who did live in the United States illegally, were either deported, sometimes violently, or held in camps with barely any resources. Under this pretense, of course many would believe that migration is a threat to international security, because that is the narrative they have been presented with. But in reality, migrants come to countries for many different reasons, and oftentimes they actually have positive effects on the country, like boosting their economic growth (OECD 2014).

In this paper, I will discuss the cause and effect relationship of the rising sea levels and a mass movement of climate refugees and how that will threaten international security. Looking at two case studies, one in the Pacific island countries, and one in the Carribean islands, readers will be able to see how the rising sea levels have already affected many citizens of these countries. Making connections to historical context along with the present problems at hand, I will be able to display the international security threats that come with climate change.

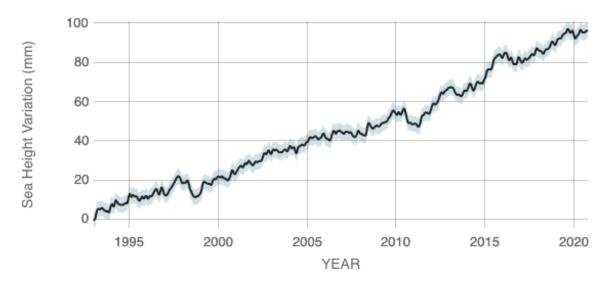
Literature Review

Much of the existing literature addresses climate change in a way to suggest options on how to avoid a huge climate crisis, where millions of people are without homes, and there are mass food and water shortages. It is highly unlikely at this point in time, when we are already witnessing the damaging effects of climate change, that the countries who produce the most greenhouse gas emissions will cut back, reduce their emissions, and take action on the climate crisis. Many articles address the environmental implications of the rise of sea levels but many do not include what this means in the long run. Existing literature on the rising sea levels and how it can impact international security around the world is scarce but not completely missing. Many of them draw to the same arguments as this paper but I find that there is nowhere near enough literature on this topic to substantiate this huge problem that is only growing bigger as time goes on. In this paper, I do not wish to suggest ways in which the international community can stop or slow climate change, I do not wish to ask countries to lower the greenhouse gas emissions, so that we can avoid this crisis. This paper will look at this problem head on, assuming that there is no way the climate crisis can be stopped and make connections, drawing from existing research, between rising sea levels and the security threats that come with it.

Research Design and Methodology

Climate change is a heavily debated topic in the world of politics, whether it exists, if it is anthropogenic, or if it is harmful to living species. This paper will not argue any of these things, and instead assume that it does exist, it is anthropogenic, and it is harmful to us as a human species. The world around us is rapidly changing whether we can physically see and feel or not. The days are getting hotter, extreme weather events are becoming more frequent, and everyday

more animals are becoming endangered. There are many repercussions of climate change but this paper will focus specifically on global warming and how Earth is heating up. According to the NRDC, "Global warming occurs when carbon dioxide (CO2) and other air pollutants collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Normally this radiation would escape into space, but these pollutants, which can last for years to centuries in the atmosphere, trap the heat and cause the planet to get hotter". These trapped pollutants and gases are called greenhouse gases. Because of these greenhouse gases, trapping heat and heating up the planet, the global temperature has risen about 1 degree celsius since the late 19th century; that may not seem like much but scientists warn if the global temperature rises above approximately 1.5 degrees celsius, there could be huge ramifications to our everyday lives. Since the Earth is warming up that means the ocean is too, and this is where the problems begin. In Antarctica and Greenland ice sheets are decreasing in mass and shrinking, Greenland lost an average of 279 billion tons of ice per year between 1993 and 2019, while Antarctica lost about 148 billion tons of ice per year (climate.nasa.gov). Glaciers all around the world are also retreating and melting, and as the ocean takes in more and more heat, the seawater expands. The added water from melting ice sheets and glaciers, and the thermal expansion of seawater contribute to the rise of global sea levels.



Source: climate.nasa.gov

Figure 1. Data source: Satellite sea level observations. Credit: NASA's Goddard Space Flight Center.

In the graph above, the change in global sea levels was tracked since 1993 by satellites. The global sea level is rising approximately 3.3 mm per year and in the last century, it has risen about 8 inches, and will continue to rise. What does this imply for the areas it will affect?

When sea levels continue to rise, this threatens many coastal communities around the world. Sea level rise could erode and inundate coastal ecosystems and eliminate wetlands, it also increases the salinity of ground water and pushes salt water further upstream. Higher salinity can make water undrinkable without desalination, and harms many aquatic plants and animals (EPA 2017). Coasts and shorelines will disappear and small islands will be submerged by water completely. Some islands have already been lost in the Pacific islands, they were small islands but it is a huge signifier to what is in store for our islands futures.

With the rise of sea levels comes many other implications not just environmentally but politically. By 2100, there will be approximately 200 million living below the sea level line (statista 2020), meaning millions of people will become climate refugees. Since sea levels cause water and food shortages, and the loss of shorelines, millions of people will either migrate further inland, or become climate refugees, seeking homes in other countries to escape the effects of climate change. This can become a threat to international security if not taken seriously. With mass migration comes shortages in resources like food, water, and livelihood. This can become not only a problem for the displaced persons but for the host country as well, and could create bad sentiments towards the displaced persons. As history can prove, bad sentiments towards a certain group of people can induce violence or prejudice against the climate refugees and thus creating security issues of distrust throughout the country. The government aiding the climate refugees can cause massive skepticism and loss of trust within the citizens of the host country. In turn, the host country will begin to lose sovereignty.

Focusing on two case studies in this paper, one will look at the Caribbean islands and the United States, and the other will look at the Pacific Island countries and Australia. Both of these regions are included in the Small Island Developing States and they both have already been deeply affected by climate change; some natives have already begun to immigrate to nearby countries like Australia and the United States. These two regions are both in different areas of the world, and comparing how the surrounding countries have addressed and implemented action toward the climate crisis that is affecting their neighboring islands and taking a look at their previous engagements with immigration will be very telling of the situation.

The Caribbean is located south of the United States and north of South America. It consists of 16 countries, and its population is roughly 43 million people. The Caribbeans coasts

are its main source of economic activity, where 70 percent of its population lives on the coasts (World Bank 2014). Many, if not most, Caribbean countries have already faced the effects of climate change through coastal erosion, or disappearing beaches. Many Caribbean citizens will begin to migrate either inland or travel further north to the United States to seek refuge from the shrinking islands and the extreme weather that constantly plunders their islands. Unfortunately "under current U.S. immigration law, people displaced by natural disasters and environmental degradation—including those displaced by the impacts of climate change—have traditionally not been considered eligible for protection as refugees" (CSIS 2020). There is no way to know if this policy will change in the future but it is important to point out that there are currently not enough protections for climate refugees.

Historically immigration has always been one of the heaviest debated topics in the United States, especially in more recent years when the Trump administration was in office, because of their stance on the topic. The United States has already introduced the narrative that all immigrants are criminals or terrorists. With an influx in new immigrants seeking refuge from the sinking homes in the Caribbean, there is bound to be ill feelings towards them. Ill feelings turn into bad sentiments, and when the climate crisis begins to affect the United States as well and its food and water supply, those bad sentiments could turn into hatred towards the climate refugees for coming to the United States and using resources that could be going to its citizens. Hatred turns into violence and creates security threats throughout the nation. The United States is an extremely nationalist country, where many of its citizens feel an extreme connection to their country and supports its best interests. If supporting millions of climate refugees is not in its best interest, and the administration in power decides to help and support these refugees, it can create distrust, and doubt against the government in power.

The same can be applied to Australia and the Pacific Island countries. There are 15 countries within the Pacific island territory, with a total population of approximately 2.3 million people (World Bank). They are some of the most vulnerable countries to the effects of climate change. "Coastal communities in Oceania are being forced from their homes by rising sea levels and erosion in a situation assessed as severe" (Caritas.org). The reefs surrounding these islands are dying, and the population of fish is getting smaller and smaller. Many of these communities have lived on these islands for generations, and they are being physically pushed out by the water. They are not receiving much help from neighboring countries like Australia who have been largely inactive in the fight against climate change, despite being one of the biggest contributors to global greenhouse gas emissions. One main difference noticed between the Caribbean islands and the Pacific islands is that the Pacific islands have been more vocal to the Australian government about their concerns than the Caribbean citizens have. They have urged the Prime Minister of Australia, Scott Morrison, to take action on this matter and help its neighboring countries in the Pacific, but they received words instead of action (O'Keefe 2019).

Historically, Australia has had a bad relationship with immigrants, especially immigrants trying to seek refuge by boat. In Australia they called these asylum seekers "boat people", they are people who arrive to Australian shores by boat from countries like Vietnam, or Indonesia. Australia has a long history of turning down these refugees, and has taken extreme measures to deter "boat people" from approaching its shores (UNHCR 2003). People who seek refuge by boat in Australia have been sent to Nauru, or Papua New Guinea's 'Manus Island' for "Offshore Processing" and placed in camps. Many of these people who were sent here, stayed for many years in horrible conditions, and it is said that there are still a couple hundred refugees living on these islands (Doherty 2016). If climate migrants begin to look for refuge within Australia's

borders they might begin to be deterred like the "boat people" as well, and looked at as a security threat. This can have the same effect as the United States, where bad sentiments created from false narratives can create security threats. Perhaps the security threat is even greater in this region because Australia is more prone to the effects of climate change than the United States. In recent years, Australia's seasons have become hotter, there have been more frequent and larger wildfires throughout New South Wales and Queensland, and their Great Barrier Reef is dying (CSIRO 2020). Australian citizens will be inherently more desperate and worried about resources, thus propelling competitiveness and violence against climate refugees who also seek resources.

Conclusion

Throughout this paper, I have made connections between the climate crisis and the international security threats that can come with it. Millions of people are expected to migrate from their homes due to the impending crisis at hand that will physically push people from their homeland and to the shores of larger countries. With millions of refugees, comes the need for resources like food, water, and livelihood. If these resources become scarce due to either a limiting amount, or from the effects of climate change, citizens of the host country, and immigrants will begin to hold prejudices against each other. This can be the result of their livelihoods being strained or threatened, resulting in possible violence, and security threats across the globe. If the host country aids these immigrants, it can result in doubt and distrust against the government and threaten their authority. This argument may appear to sound very theoretical, but if the right precautions are not taken then it can become a huge threat to international security.

Countries who are largely responsible for propelling the climate crisis with huge greenhouse gas emissions, should also be responsible for aiding and helping the affected countries to find new solutions and find new homes for the displaced. Countries need to review their existing immigration policies, and revise them to include climate refugees, so they can prepare for the influx of migrants that are soon to come. There needs to be more collaboration between countries and organizations to implement aid and compromise new solutions so that they may take the right precautions. Taking these precautions will help avoid huge international security threats caused by climate change.

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