Natural Disasters and National Security:

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Natural Disasters & National Security: The Case of the Koreas

Over the past few years, whether anecdotal, empirical or statistical, we have all felt the effects of rising temperatures. Hotter, wetter summers and warmer winters have become the norm, but what is most concerning is the increased risk of extreme weather events linked to climate change. Extreme weather events are rare, high-impact occurrences (in the ninth or tenth percentile of probability) causing significant damage to communities, agriculture, and the environment. Some scholars, such as Huber & Gulledge

(2011), argue that attributing these events solely to human activity and global warming, oversimplifies the issue, as climate is a long-term pattern, not just a result of individual weather events. However, it is reasonable to say that global warming increases the likelihood of such extreme events occurring more frequently.

Given that these events cause major economic and social disruptions, their connection to weakened national defenses is not to be taken lightly. In the Korean peninsula, the political balance is so delicate that considering how climate change-driven natural disasters impact the greater socio-political structure and the country's security is no longer an issue of academic curiosity, but one of national security. This piece seeks to make said link apparent as well as demonstrate the high levels of risk involved when such a link is not properly considered.

Mata-Lima and colleagues (2013) found that a country's or region's resiliency after a natural disaster is influenced by its level of social capital. Higher social capital – such as education, training, strong community networks, effective government strategies, and transnational agreements – help a country respond more quickly and effectively, reducing both the immediate and long-term negative impacts.

The World Bank Group, in 2023, ranked the Republic of Korea (South Korea) n.14 in terms of GDP while the Democratic People's Republic of Korea (North Korea) was ranked last on the list, perhaps also due to the lack of available information. Although these two countries might not be exactly in the bracket of GDP mentioned earlier showing correlation between increased terrorist attacks and a natural disaster; extreme weather events pose a compelling challenge to national and supra-national security frameworks, particularly in regions with a legacy of conflict and instability. The Koreas present a unique situation involving high international risk of conflict as well as a region subject to increasingly damaging weather events, both in frequency and in magnitude. This makes them an ideal ground to study the political and conflict implications of increasingly risky climates around the world.

Omelicheva (2011) finds that rapid-onset disasters, such as floods, are statistically likely to trigger political instability, especially where pre-existing tensions exist. Full autocracies and democracies are more robust to this effect, as in the first case the state squashes any symptom of rebellion, and in the second, adequate avenues of communication exist. Authors Philip and Righarts (2008), investigate the relationship between natural disasters and the risk of violent civil conflict. They come to similar conclusions regarding the government type and the impact of rapid-onset disasters as being significant. If we consider the Korean situation as a tense armistice, the findings of the previously mentioned scholars suggest that the heightened frequency and intensity of floods and typhoons could serve as triggers for further escalation of political tensions.The authors call for improved warning systems and conflict management/mitigation strategies as well as

greater military involvement not only in terms of rescue resources but also in terms of bolstering national security systems.

The Korean peninsula is located in East Asia, it borders China and Russia to the north and extends about 1100 km southwards into the Pacific Ocean.This provides the peninsula with a climate having four distinct seasons: winters are cold given the Siberian influence and summers are hot and wet due to the Pacific Ocean. North Korea, which shares a direct border with Russia, experiences a much longer and harsher winter compared to its Southern Neighbour with short, humid summers influenced by the monsoon cycle, winds and droughts are recurring challenges for the region (see map). South Korea, on the other hand, has a shorter and milder winter in comparison and a longer and wetter summer. The southern half of the peninsula is more subject to typhoons than North Korea, albeit less so than other east Asian countries such as Japan and Taiwan. In recent years however, the annual number of typhoons has increased, as has the amount of rainfall, which has caused major floods with serious impacts. In fact, in 2022, South Korea experienced its heaviest flood of the last 100 years as well as a super typhoon resulting in the death of ten people and an estimated KRW 1.7 trillion in damages (Korean Re, 2023).

Figure 1: Annual mean air temperature and precipitation on the Korean peninsula. Image by Leah Nichols and Marc Los Huertos (2023)

In recent years, the political and military tensions between these two states have increased significantly. The conflict in Ukraine has radicalized their positions, with North Korea drawing closer to China and Russia and South Korea to the United States. Indeed the original Korean conflict has been considered as a proxy for the cold war with true armed battle being fought on this asian soil. The likelihood of open war is low (the economic & political cost would be too high) yet North Korea's official withdrawal of the goal of unification and the shift in South Korea's military strategy towards becoming more offensive, increased threats and nuisance style attacks can be expected especially in proximity of the border (i.e. rubbish balloons, South Korean border propaganda etc.).

In terms of disaster relief plans, South Korea's main piece of legislation is the Framework Act on the Management of Disasters and Safety, Republic of Korea (consolidated version 2020). This framework provides a comprehensive plan for disaster management and preservation both at governmental and local level. It makes provisions for both natural disasters and social accidents and plans for recovery, it includes a section on education and training as well as civilian responsibilities during times of crisis. However, mentions of the military are limited to extreme rescue acts or as secondary support. There is no specific provision for military action should issues of civil unrest arise, or boosting of border patrol. A recent study has shown that transnational agreements such as ASEAN, which South Korea is not a part of, have made strides in risk reduction. Although recently the trend has stalled due to lack of connection with and implementation at the local

level, it nonetheless provides an excellent arena for cooperation and the creation of important partnerships and alliances between countries in the Asia-Pacific, boosting national security.

Figure 2: "This photo shows the Arch of Reunification, a monument to symbolize the hope for eventual reunification of the two Koreas, in Pyongyang North Korea, on Sept. 11, 2018. (AP Photo/Kin Cheung, File) [This monument was destroyed in January 2024]" (Dier, 2024)

One of the most devastating summers to hit the peninsula was this past summer 2023 with record rain, landslides and typhoons causing enormous damages and displacement of people in both North and South Korea. Give2Asia estimated 47 deaths, the evacuation of over 10 500 individuals and the loss of 579000 heads of livestock in South Korea. President Yoon spoke out against the failure of local authorities in following disaster response procedures as well as calling for action against the climate crisis. In North Korea, albeit having very little information on actual numbers and on their disaster relief procedures, we do know that a state of emergency was declared by President Kim Jong Un, with many farming villages along the Chinese border completely flooded and over 4200 residents evacuated via airlift. It is very difficult to verify these claims and the actual numbers may be much higher than stated, in one of the poorest countries in the world, a flood of this severity robs residents of arable land compounding the already dire food shortages and poverty of civilians. Notwithstanding this tragedy, the North Korean dictator lost no time in continuing his military threats against his southern neighbors. Missile launches reportedly able to reach the southern capital, Seoul, have been placed along the border and roads and railways previously linking the two countries (a bygone symbol of peace) have been destroyed by the North. Threats of drone warfare have increased and Russia's economic help as well as sharing of modern war and artillery tactics are of great concern to South Korea and its allies. Kim Jong Un, perhaps emboldened by his recent military alliance with Russia (North Korea-Russia Comprehensive Strategic Partnership), might be seeking to consolidate his position of power, both within the country and to outside eyes, especially after the disastrous floods of July/August. The greater implications of this alliance might affect Europe as well. With North Korea sending military troops and armaments to Russia and South Korea strengthening its alliance with Canada and the U.S. which might result in the deployment of southern troops and armaments to Ukraine, implying that the Russo-Ukrainian conflict would develop into a proxy war between North and South Korea thus increasing the international aspect of this conflict.

As discussed previously, natural disasters constitute a serious threat to national and intranational security. Internal terrorism, civil issues such as looting, economic devastation, lack of resources and lives lost could be enough to topple governments in weak enough countries, in more resilient ones, actions perceived as improper or inefficient by the local population

have been linked to increasing unrest and political tensions resulting in loss of legitimacy (Mata-Lima, Alvino-Borba, Pinheiro, Mata-Lima, & Almeida, 2013).

The Korean peninsula presents a unique situation in which pre-existing political tensions, coupled with evermore intense weather events is resulting, in my opinion, in increased animosity, national security risks and perhaps even a proxy war, to be fought on European soil. National governments, especially in conflict prone areas, might want to explicitly consider military strategies, both in terms of relief efforts and in terms of protection in their disaster relief policies. The role of NGOs and transnational agreements should also be considered and further research should be undertaken to ensure for the most comprehensive and efficient country specific disaster relief plans.

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