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Rising Temperatures, Rising Risks: Climate Change and Israel's National Security

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The Middle East is one of the regions most vulnerable to climate change, including rising temperatures, water and consequently food shortages, rising sea levels, and increased frequency and intensity of extreme weather events. These changes could aggravate regional instability, lead to mass migration of refugees, and create comfortable conditions for terrorist organizations. Beyond the effects on regional geopolitical stability, which could become a security challenge for Israel, climate change also has direct implications for infrastructure, equipment, and defense and weapon systems, as well as the health and level of preparedness of military and security personnel. To address the ramifications of climate change for its national security, Israel must integrate the topic into its core national security agenda and discourse, including by facilitating a dialogue between climate and security experts; integrating climate effects into risk scenarios; and accounting for climatic effects in budgets and planning.

The incoming US administration intends to treat the climate crisis as an urgent threat to national security, and hopes to lead the global struggle on this challenge. Immediately after his election, President-elect Biden appointed former Secretary of State John Kerry as climate czar, officially, Special Presidential Envoy for Climate. The post also existed under President Obama, but will now be upgraded to a cabinet position, and Kerry will be a member of the White House National Security Council. For Kerry, who has been working on the issue since 1992 and who, as Obama's secretary of state, led the discussions toward signing the Paris climate agreement, this marks a full circle. The current challenge for Kerry, one of Washington's most respected politicians and diplomats, relates to both domestic and foreign policy. The Trump administration withdrew from the Paris Agreements and repealed climate laws and regulations, many of which had existed for decades. Kerry will now have to harness the support of Republicans, most of whom oppose climate measures, including reducing the use of fossil fuels, as well as convince other countries that the United States will stop zigzagging and be consistent in its climate policy. Nonetheless, despite climate change being a politically controversial topic in the United States, it is still included in every

important document on national security. The different branches of the federal government, including Congress, the intelligence community, and the armed forces, all seek to understand the effects of climate change on US national security, and the military is instructed to prepare accordingly.

In Israel, the government has taken a number of important steps to prepare for climate change: it has established a climate directorate and joined international agreements, including the Paris Convention, and Prime Minister Benjamin Netanyahu has committed to switch from polluting fuels to renewable energy by 2050 (although in practice there is no government plan, standards, or budgets to reach this goal). At the same time, different frameworks involving the central government, local authorities, and civil society organizations are working to prepare the economy and civilian infrastructure to deal with the climate crisis. In contrast, the national security realm has neither plans nor experts on this topic (except in the Ministry of Foreign Affairs, which has a special envoy on climate, albeit without a support staff). Defense and national security apparatuses do not view climate as affecting national security, and the issue is not included in strategic assessments, scenarios, planning processes, and budgeting.

This disconnect exists despite evidence of close, direct, and indirect linkage between climate change and national security. While climate effects are not the only cause of conflicts between state and sub-state actors, they are considered threat multipliers that risk exacerbating existing problems and increasing instability: extreme heat, water and food shortages, and rising sea levels could widen socio-economic gaps, lead to mass migration and waves of refugees, and create favorable conditions for the emergence of terrorist and sub-state actors that exploit vulnerable populations. This is especially true in the Middle East, which is prone to inherent instability and is characterized by institutional and governance failures to begin with.

In the Middle East in general and Israel in particular, the most direct and relevant climate phenomena that affect national security are the consistent rise in temperatures, water shortages, rising sea levels, and an increase in the frequency and intensity of extreme weather events. The melting Arctic and its implications for the great power competition between the United States, China, and Russia will also have an indirect effect on Israel as well.

According to the Israel Meteorological Service, the average temperature in Israel is currently about 1.4 degrees Celsius higher than in 1950 and is expected to rise by another 0.9-1.2 degrees by the end of 2050; that is an increase of more than 2 degrees Celsius within a hundred years. The entire region is heating up faster than other regions, and in the summer, temperatures are regularly recorded above 50, and in Kuwait and in Iran

even 55 degrees Celsius. The United Arab Emirates and Bahrain, countries with which Israel recently signed normalization agreements, might not be livable by 2050. An increase in temperatures is correlated with an increase in inter-group violence.

There is also bad news also on the water front. Precipitation in Israel is expected to drop by 15-25 percent by the end of the century. More generally, the Middle East and North Africa (MENA) is among the driest region in the world. Fourteen of the 33 countries most prone to water shortages are in MENA, where 60 percent of the population – tens of millions of people – have almost no access to drinking water. Water scarcity also hurts agriculture, limiting food production, and could lead to food insecurity. Drought caused by extreme heat and the failure of governments to provide water and food to their populations increase the risk of violent conflict, including rising sub-state actors and terrorist organizations. The most notable example is the severe drought in Syria in 2006-2011, which led to agricultural failure, economic deterioration, and the migration of 1.5 million Syrians from rural to urban areas. This development exacerbated socioeconomic and ethnic tensions and, combined with pre-existing factors, fueled the bloody civil war. Syria is not necessarily an exception, and simulations show that by 2030, Egypt could be in a similar situation. Moreover, high temperatures, rising food prices, and the consequent rise of sub-state actors, could lead to mass migration towards Europe and possibly even Israel.

Sea level rise, which risks flooding entire areas, is also likely to lead to instability and mass migration. In addition, higher temperatures are associated with greater intensity and frequency of extreme weather events, including floods, which increase the risk of outbreaks and the spread of infectious diseases such as malaria, West Nile virus, Ebola, and Zika. As the coronavirus crisis demonstrates, a virus outbreak in one place can quickly affect the rest of the world.

Beyond the climatic effects on regional stability, which could become a security challenge for Israel, there are also direct implications for military infrastructure, equipment, and defense and weapon systems, as well as the health and level of preparedness of military and security personnel. Sea level rise combined with extreme weather events could lead to floods, risking human lives and damaging property – as in the floods at Hatzor Air Force Base in January 2020, which caused heavy damage to F-16 fighter jets. Extreme heat also affects the ability to fly. For example, above certain temperatures, some avionic systems in aircraft shut down. High heat also reduces air density, which affects the ability to take off with cargo. This is a well-known phenomenon in the Persian Gulf, and there is no reason why it could not occur in Israel under similar conditions. Combat in extreme heat will endanger the health of troops, and a consistent rise in temperatures means reduced number of training days and decreased

fitness. This issue was recently raised in an article published by NATO Secretary General Jens Stoltenberg, who explained that the organization is dealing with the effects of climate change for several reasons, including protecting its soldiers who are deployed to hot areas such as Iraq, where temperatures frequently reach 50 degrees Celsius. Israel, facing similar conditions, must also be prepared to deal with similar effects.

Indeed, Israel has acknowledged the challenge of climate change and has taken a number of important, albeit initial, steps to address it on the civilian front. Now it is time for Israel to recognize climate change as one of the strategic threats to its national security. Climate change will affect the answers to at least several important questions: Where will Israel fight – or where will security challenges come from? Who and how will Israel fight? And will the IDF and other security forces be properly prepared? Such a framework will enable the examination of threats and proper planning in the short, medium, and long terms. Israel can learn from the experience of the US, British, NATO, and other militaries that have been preparing to adapt for climate change over the last decade, and integrate the issue into ongoing discussions on national security. The National Security Council, the IDF, and other defense and national security apparatuses must employ experts in the field, and at the very least at this stage, develop an ongoing dialogue between climate experts and traditional national security experts to understand the linkages between the two fields. Climate effects should factor into planning and budgeting of infrastructure, human resources, and defense and weapon systems, as well as be integrated into war games and simulations. At the same time, the climate crisis could become an opportunity for enhanced cooperation with neighboring and partner countries, including the United States and NATO. Incorporating climate change into the national security agenda, preparing for risks, and seizing opportunities, however, requires orderly processes, the development of knowledge and methodologies, prioritization, and resources – which are particularly ambitious goals given the current political crisis.

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