

Climate Change and Security: An Israeli Perspective

Owen Alterman

Introduction

The issue of climate change lies low on the Israeli security agenda. The media rarely reports on it and politicians discuss it infrequently, if at all. Governmental and academic panels have tackled the climate change issue, particularly for its domestic impact, but in the security arena, the issue is absent from view.

Abroad, the situation is different. In a survey of almost 5,000 US academic experts specializing in international relations, some 40.8 percent named climate change as one of the three most important foreign policy issues facing the United States, more than any other issue cited.¹ For them, at least, climate change is at the top of their country's security agenda; so too in parts of the developed world, where climate change is at the heart of discussions on security.

The relative lack of interest in Israel in climate change vis-à-vis security is understandable. First, Israel has a crowded security agenda, with challenges that demand more immediate attention. The more remote risks from climate change cannot compete with the pressing questions of the Iranian regime and its proxies, relations with the Palestinians, or a region in turmoil. Second, on climate change, Israel has little ability to affect events. Unlike the United States, China, or India, Israel is not a major carbon emitter. Even if policymakers were to focus on the disruptive threat of a flooded Nile Delta, for example, Israel could do nothing to prevent it and little to accommodate it.

Still, even if the climate change issue, rightly, is not at the top of the Israeli security agenda, it should not be consigned to the very bottom. Israel has

Owen Alterman is a research fellow at INSS.

clear interests in the climate change question. If the government and private sector plan strategically, Israel could even gain geopolitically from climate change. This article will develop that thesis. First, it will present the basics of the climate change question as understood in international discourse. Second, it will explain how the need for technologies for adaptation to climate change could present Israel with strategic opportunities. Finally, the article will offer policy recommendations and avenues for further thought and planning.

The Climate Change Issue: Mitigation and Adaptation

For several decades, scientists have warned that the emission of carbon gas into the earth's atmosphere has led to changes in the planet's climate. However subtle – e.g., a warming of 1.5 degrees Celsius – the changes threaten to disrupt the fragile ecological balance.² In addition to “global warming,” scientists have also predicted more frequent (and fiercer) storms and rising sea levels that could affect coastal populations.³ This includes a potential impact on Israel where, for example, rising sea levels could lead to flooding in Tel Aviv as far east as Ibn Gvirol Street.⁴ Despite nagging skeptics, the scientific and political consensus is that climate change is real, man-made, and increasing.⁵

The response to climate change has proceeded along two tracks. Particularly in the early years of the debate, policymakers focused on efforts at mitigation: curbing carbon emissions and thereby lessening climate change and its effects. This mitigation effort has run up against a collective action problem. If all states lowered their carbon emissions, then most states would benefit, as climate change would be prevented. However, every individual state has an incentive to be a free rider: to maintain its emissions while other states lower theirs. That state would then enjoy the benefits of reduced climate change (because overall emissions have decreased) without the costs of restricting its own economic development.⁶ Arguably, global agreements have led to incremental progress in curbing emissions, but overall, the collective action problem has doomed prevention efforts.

The shortcomings of the mitigation approach have led to increasing focus on the other track: adaptation.⁷ This approach takes it as given that climate change will occur and instead focuses on adapting to it. Given the failures of the past few decades, scientists now say that much climate change is no longer preventable.⁸ Thus, even strong proponents of mitigation acknowledge that some adaptation is needed. Countries projected to be

badly affected by climate change have already invested substantial efforts in adaptation.

On the mitigation front, Israel can do little. Israel has signed the leading climate change agreements and laid out plans for curbing its emissions (plans to be bolstered by a switch to natural gas for generating electricity).⁹ Still, Israeli emissions are a tiny part of the global whole. The United States and China, alone, emit 44 percent of the globe's carbon.¹⁰ For a quick impact on mitigation, these countries, and not Israel, are the addresses.

On adaptation, however, in some areas, Israel can make a difference. Israel's domestic policymakers can and will need to find ways of adaptation to the impact of climate change on Israel's own territory, and have started to do so. In 2014 the government-commissioned Israel Climate Change Information Center released its report of what should be done domestically, such as in infrastructure and agriculture, to move forward on adaptation.¹¹ Looking beyond a domestic focus, Israel can do little to manage the security implications in its immediate neighborhood.¹² Those challenges are potentially great, and include disruption of agriculture, low lying areas flooded by rising seas, higher risk of conflict over resources, increased refugee flows (both in the Levant and in Egypt), and all the security threats that follow.¹³ Israel can take steps to insulate itself from instability, such as strengthening border barriers and defenses.¹⁴ Israel can also offer some help to relevant governments and non-state actors, but politics would limit the extent of cooperation.

On the other hand, the Middle East is not the only region threatened by climate change, and cooperation could be more fruitful between Israel and states farther afield. For India, climate change could exacerbate what are already huge challenges in feeding its people. As Indian scholars have noted, "India has only acquired 2.4% of the land area of the world with an arable land of 11.2% but bound to feed 17.5% of the world population. This is a great challenge for our country which is supposed to become more severe with the threat of climate change."¹⁵ Desertification threatens vast regions of Africa,¹⁶ while Bangladeshis fret that as much as 20 percent of their country could be drowned in rising seas.¹⁷ These states will need new technologies in agriculture and water use, and even in accommodating refugee flows.

Israel will likely have both the circumstances and the tools to benefit from the opportunities of climate change adaptation.

Israel excels in all of these areas and, in principle, is a promising partner in facing what are often existential threats to states and their populations.

Why the Climate Change Issue Matters for Israel

For Israeli national security policymakers, the climate change issue matters, in part because it presents Israel with opportunities. Most countries will be losers from climate change. Some, though, will be winners. The melting Arctic may yield access to oil and arable land, enriching Canadians, Greenlanders, and Russians.¹⁸ Even Scandinavian states may find themselves with more relative power within Europe as southern European lands dry. In principle, these states have a perverse incentive: pollute more. From climate change, they gain.

Israel would not be a winner from climate change in this sense; its ecology and climate are as fragile as those of others in the region. Israeli technology and techniques, though, could yield geopolitical benefits

for Israel. For decades, Israeli scientists and companies have pioneered agricultural and water use technologies that have helped build Israel's soft power throughout the developing world. Drip irrigation is perhaps the leading and best known example. Israeli scientists pioneered new methods for drip irrigation, a method of maximizing the efficiency of water use in agriculture.¹⁹ From the 1960s onward those developments in technique were marketed throughout Africa, often to great effect, and their export from Israel to Africa continues apace.²⁰ The annual WATEC and Agritech fairs attract delegates from throughout Africa and Asia. Israeli disaster relief, proven particularly after earthquakes, has also been deployed for climate-affected disasters such as more frequent hurricanes and typhoons.

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Climate change may lead to a rise in demand among developing countries for exactly the technologies and techniques that Israel is highly equipped to supply. In the 2014 Global Cleantech Innovation Index (prepared by the Cleantech Group with the imprimatur of the well recognized World Wildlife Fund), Israel topped the list as the world leader in the field.²¹ In specific terms, the Asian Development Bank lists drip irrigation²² and water use technologies (including those reducing

water waste)²³ as among the most relevant for climate change adaptation. In these areas, Israel already excels. Another promising arena, also noted in the Asian Development Bank report,²⁴ is desalination, where Israeli advances in technology have made their way abroad, including through IDE Technologies, a leader in the field. Information technology for the health sector might also become a growing market due to climate change-driven impacts on human health.²⁵

These climate change developments, while perhaps noted too little in Israel's national security arena, have attracted considerable attention in other parts of government. As the chief scientist from the Ministry of Environmental Protection said as early as 2006,

Israel can, and must, take advantage of this situation [of climate change] to become a regional, and even global, center of knowledge that contributes to international welfare through teaching and explanation. Israel also can reap substantial profits from the marketing of goods and technologies based on this knowledge.

The Israeli government has already decided to invest hundreds of millions of shekels to place Israel in a central position in the global water industry, a fast developing market. The global needs arising from climate change could greatly enhance the attractiveness and comparative advantage of Israel as a leader with knowledge and experience proven over decades of confronting the difficulties posed by climate and a shortage of water resources. These global needs could move Israel to a leading position worldwide in assessing, confronting, and adapting to climate change.²⁶

In the nine years since that statement, government agencies have acted to promote Israeli technologies and know how. In Israel, the government established the Israel Climate Change Information Center at the University of Haifa, a center working both on domestic adaptation to climate change and promotion of Israeli technologies abroad.²⁷ Israel's MASHAV international development agency has incorporated climate change adaptation-related elements into its courses and development programs in Israel²⁸ and is active abroad, collaborating, for example, with Germany to train farmers in Burundi²⁹ and with the United States to do so elsewhere in East Africa.³⁰ Another active agency is the Ministry of Agriculture & Rural Development's Center for International Agricultural Development Cooperation (CINADCO), which collaborates with MASHAV programs.³¹

For its part, the Ministry of Economy recently signed an agreement with the World Bank that will step up the sharing of water technologies with developing countries.³² Beyond that, the Ministry has published a report highlighting 350 Israeli companies with technologies relevant for adapting to climate change. Many focus on water use and agricultural techniques, while others tackle infrastructure development or disaster response. Many of the firms target regions where climate change poses a particular threat. IDE Technologies is building a desalination plant in California, a project that has received added attention due to California's worsening drought.³³ Moreover, at least twenty of the companies are involved in projects in India, ranging from desalination³⁴ to renewable (wind) energy³⁵ to crop protection (including from climate induced threats).³⁶ The chief minister of Maharashtra – the Indian state that includes Mumbai and has a population of more than 110 million – visited Israel in April 2015 for the Agritech conference.³⁷ He has explicitly said that he is interested in climate adaptive technologies for the agriculture sector.³⁸

The Indian relationship is particularly important for Israel and one in which adaptation technologies could play a significant role in bringing the countries closer together. Beyond India, some of the other developing countries that will need climate-related technologies are those with which Israel lacks diplomatic relations. For Middle East states, open interaction with Israeli firms could be particularly sensitive, though at least one company was able to report publicly through the Ministry of Economy on projects in Kuwait and other Gulf states.³⁹ Beyond the region, though, countries such as Pakistan and Bangladesh would have much to gain from Israeli technologies and an increased incentive to overcome the political sensitivities of contacts with Israel. Pakistan is expected to see an increase in extreme weather events, and decreased precipitation in its south could lead to lower agricultural yields.⁴⁰ Bangladesh too will face challenges to its agricultural production due to loss of arable land to rising seas and increased salinity.⁴¹ This provides an even greater potential geopolitical gain from climate change adaptation, if the Israeli government is able to take advantage of it.

Policy Recommendations

Israel will likely have both the circumstances and the tools to benefit from the opportunities of climate change adaptation. On a positive note, the government has already invested substantially in supporting research and

development of water use technology, and government agencies are involved in marketing the relevant Israeli goods and services. This, however, is not enough. To take full advantage of the opportunity, the government must add one element: a strategy for leveraging the technologies for geopolitical gain.

Most of the Israeli technologies are developed by private firms, and some are sold to private consumers. Without government intervention, the sales contribute much to private profits but little to the national geopolitical purse. Such climate change adaptation might help the Israeli economy but would do little to bolster Israel's image, soft power, or diplomatic and security position. This dynamic frustrated Israeli agricultural support to Africa in the 1960s, which, as the Israel Climate Change Information Center notes, "did not bear fruit" in building political or diplomatic support.⁴² For that reason, the information center concludes, Israel should "prepare for the possibility of giving help without any visible quid pro quo in the short term."⁴³ A contrary approach would be to devise and implement new strategies to reap the fullest geopolitical gains. The Information Center has recommended one such leveraging: mutual assistance treaties with Greece and Italy (though primarily for response to natural disasters).⁴⁴ Beyond that, Israel's government should consider other strategies for how best to channel and incentivize trade with countries with which Israel wishes to build ties.

In that regard, policymakers have at least two, non-mutually exclusive options. The first is to provide financial incentives or additional marketing support for trade with high priority states. This could involve trade policy as well as research support for technologies of particular use in target states or markets. The government has potential leverage for such intervention. In meetings with Israeli cleantech entrepreneurs, two Israeli researchers identified several means by which government action could increase exports to the developing world. The government could help in identifying local partners, for example, or fund demonstration projects on-site.⁴⁵ From these researchers' ideas, a logical corollary is that the government could prioritize its funding and support, channeling them based on geopolitical criteria. The second policy option is perhaps more controversial: regulate which technologies go where and tie those sales to the destination state's diplomatic and security posture toward Israel.

Relevant government agencies have recognized the potential geopolitical yield to Israel from adaptation technologies, but no leverage mechanism (particularly as suggested by the second policy option) seems yet to have been

proposed. An inter-ministerial committee under the auspices of the Prime Minister's Office recognized, for example, that agricultural technology has strategic value⁴⁶ and provided recommendations for government support. The report, though, did not address whether and how exports should be tied to diplomatic or geopolitical priorities.

Going forward, a task force should convene to discuss these questions and consider how best to construct the filter that would leverage Israeli technologies and yield the potential geopolitical gains from climate change adaptation. This task force should include representatives from relevant government ministries and offices, private sector companies, academia, and the think tank community. The task force could build on the work of existing bodies, such as the Israel Climate Change Information Center, which have produced relevant reports, though not focused on the issue's diplomatic-security dimension. The task force's goal would be to develop a plan of action for a structure to control and channel climate adaptation-related technologies toward prioritized destination states. An objective of the task force would be to reach a consensus between the policy establishment and the private sector. The task force's recommended plan of action would be presented to relevant decision makers, including the prime minister.

Conclusion

The climate change question is, understandably, not at the top of the Israeli security agenda. Still, the urgency of immediate crises must not obscure completely the long term advantage to be gained by setting up the structures and processes that can help Israel geopolitically over time. While not grabbing headlines, the dynamics of climate change operate beneath the geopolitical surface. Just as the impact emerges gradually, so too does the response. Policymakers should begin now to position Israel to maximize the potential benefits from climate change adaptation. Investment and careful planning can lay the groundwork for meaningful, even substantial, geopolitical benefits in the decades to come.

Notes

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