

Israel and the Environment in the Mediterranean Basin

**Policy paper based on a meeting of the
“Israel in the Mediterranean” working group**

June 2020

This paper focuses on climate change in the Eastern Mediterranean Basin and the challenges and opportunities which it presents Israel. It is based on the main points raised at the fifth meeting of the research and policy group on “Israel in the Mediterranean” held at the IDC School of Sustainability in Herzliya on February 13, 2020 at the initiative of the Mitvim Institute, the Hebrew University’s Leonard Davis Institute for International Relations and Haifa University’s National Security Studies Center. The paper highlights the vulnerability of the Eastern Mediterranean Basin to the climate change crisis, the key challenges it poses to different aspects of life in the region, as well as the opportunities for Israel and for regional cooperation in tackling it. The paper sums up the discussions and presentations at the meeting and does not reflect agreement among all participants.

A. The Eastern Mediterranean Basin as a Climate Change Hotspot

Climate change and its impacts are responsible for a wide range of environmental phenomena – warming and desiccation, extreme weather events, damage to fishing and species diversity, rising seas and more. It is important to remember that these phenomena are closely linked to human activity around the globe. Human activity makes a significant contribution to the consolidation of the crisis, which, in turn, affects human life.

The Eastern Mediterranean Basin is considered a hotspot of climate change given that it is warming up at a faster pace than the world average. According to Israel’s Meteorological Service, the average temperature in Israel has risen some 1.4 degrees in recent decades. That is probably the case in the Palestinian arena, Lebanon and Syria, too. Israel and other countries in the region contribute to the global climate crisis, although they are not heavily industrialized, and their contribution to its exacerbation is small. The region still relies on non-renewable energy resources, wide use of natural resources and extensive exploitation of raw materials, massive coastal development, overfishing, non-sustainable tourism, and other activities that burden the eco system. These factors, along with population growth and density, will damage the region’s agriculture and food production and lead to a decline of some 50 percent in available water per capita by 2050.

The climate crisis is not a standalone process. It is developing in conjunction with additional processes that burden the regional ecosystem in the Eastern Mediterranean Basin – growing population, areas of limited governance and social change. Studies also show how climate change results in violent conflicts and political destabilization in the Middle East. The climate crisis acts as a catalyst and amplifier of existing threats and challenges, the intensity and impact of which keep increasing over time.

Global warming and its ecological impact on areas far removed from the Mediterranean Basin directly affect events in the region. It is evident in increased prices of imported commodities (e.g., rice) and changes in trade routes that are significant sources of regional revenue. Thus, for example, the melting icebergs that facilitated the opening of a trade route to Europe through the North Sea could replace the trade route through the Suez Canal, leading to significant revenue decline for Egypt and the region.

B. Balancing Diplomatic and Economic Considerations

Cooperation is one of the key challenges facing the region in order to better deal with the impact of the climate crisis. However, miscellaneous regional political conflicts undercut the feasibility of cooperation. In this sense, the climate crisis presents an opportunity as it demands cross-border cooperation and a global rather than national approach to provide a better platform for regional cooperation. In other words, the fact that no country can develop resilience and tolerance to the climate crisis on its own, underscores the importance of establishing regional cooperation. Initial indications of cooperation initiatives focused on climate change are already emerging in the region. The Cypriot government, for example, is leading a regional initiative to tackle climate change. Concurrently, a Cypriot institute is bringing together a group of civil society organizations from the region to promote cooperation in dealing with the climate crisis.

The climate crisis challenges economies that rely largely on maximum resource exploitation and development, without consideration of long-term repercussions. To a certain extent, nature is fighting back, making it harder to continue this form of exploitation. At the same time, consumers and states are growing increasingly aware that economies cannot keep relying on these finite resources because they will soon be unable to meet all human needs. One of the largely untapped economic opportunities of the Mediterranean Basin is its potential for developing a blue economy relating to the exploitation and preservation of the marine environment. It includes elements of marine transportation, power stations, ports, production of renewable and non-renewable energy, trade (90 percent of global trade is conducted by sea), sustainable fishing and services such as tourism and leisure. The seas can also provide protein, medicine and vegetarian nutrition. The blue economy defines itself as a sustainable economy in the maritime space. Despite its potential for developing a blue economy, as of now, the region is not conducting itself in accordance with its guidelines. For example, limiting fishing and fossil energy activities would make room for activities related to alternative food and energies. Cultivation of seaweed could provide food, ensure food security, and constitute an additional energy source in the form of bioethanol produced from seaweed. This is an example of an element of blue economy that requires broad regional cooperation to become economically viable.

Ensuring water quantity and quality is one of the key climate crisis challenges. It is particularly significant for the arid and desert regions covering large areas of the Mediterranean Basin. Significant desiccation is already apparent in the region. Desalination is one temporary solution to the problem. Desalination has helped Israel solve its water shortage and more countries will have to follow suit. Desalination is a good solution but it entails risks and problems. (1) The desalination process includes restoring salt to the sea, which affects natural habitats; (2) Desalinated water lacks essential ingredients, such as magnesium, the absence of which heightens the risk of cardiac disease, thereby upping long-term health care costs.

The climate crisis presents additional challenges for the Mediterranean Basin – penetration of invasive species (such as jellyfish), increased frequency and intensity of flooding, sand erosion, rising sea levels and erosion of the coastal shelf. All of the above undermine the physical infrastructure on land and along the coasts. There are various ideas for successfully tackling these threats, such as designating marine reservations to encourage local fish life, adoption of development and construction standards that take into account aquifers and pooling and flow basins, and protection of important marine and ground infrastructure.

C. Principles for Israel's Environmental Policy in the Mediterranean

Israel's maritime territory includes its sovereign and economic water, and is larger than the state's land mass. Activities in and uses of these waters must be defined and regulated. The European Union has set March 2021 as the deadline for member states to present policy papers on maritime spatial planning allowing more coherent management of their waters. Within this framework, Israel's Planning Administration has cooperated with the EU on a plan for Israel's maritime space. Several principles arising from the document and the discussion held at the meeting should guide Israeli policy in dealing with the climate crisis in the Mediterranean Basin.

- 1. Balancing human needs and the environment, while maintaining flexibility** - The policy should be based on regulating human activity in the maritime space in a manner that ensures a diverse, natural and sustainable system. The natural gas and energy industry may not be so vulnerable to ecosystem damage, but tourism and desalination possibilities are very vulnerable. Any change (gas discoveries, new interests, and new knowledge) leads to changes in existing arrangements and in the conduct required of Israel and therefore requires formulation of a plan allowing adaptation on the fly.
- 2. Differing levels of protection for sub-areas of the maritime space** - Studies point to the difficulties of managing wide maritime spaces in an optimal fashion, which includes effective and comprehensive monitoring. Solutions to the problem include designating national nature reserves and national parks allowing limited fishing and other economic activities, closed security zones, and spaces allowing varied activities in adherence to set rules. The Planning Administration's proposal suggests protection for some 21 percent of Israel's 4,000 km² coastal waters (i.e. 876 km²), and a high protection level for 8.6 percent of the protected areas.
- 3. Regional cooperation** - No state can deal with the climate crisis and its repercussions alone. Israel must reach out to an array of entities in the region, and together with them build frameworks for cooperation at each level – governmental, business and civilian – and among the various levels with the aim of mitigating the crisis. The State of Israel must recognize the impact of the climate crisis on its neighbors – Egypt, Jordan, the Palestinians, Cyprus and Lebanon – and cooperate with them to the greatest extent possible in order to help residents of the region.
- 4. Development of renewable energy** - Israel relies largely on exploitation of non-renewable energy, such as natural gas. The natural gas issue has taken over public discourse and become a type of magic bullet for all of Israel's political and economic woes. However, given the reaction of the global economy and society to the climate

threats, Israel's commitment to emerging international treaties and local environmental implications, Israel must shift its focus to the development of technologies for renewable energy production and storage.

- 5. Assessing maritime system services** - In order to make rational and coherent decisions, a detailed picture is required of the entire array of maritime eco-system services and an evaluation of the benefits we derive from it – food supply, climate adjustment, travel and leisure, medical resources, and more. Each element can be given an economic value, after which the cost and benefit of using or not using each resource can be assessed. Assessing the services of the maritime system would allow decision makers to know what resources the sea provides, where they are located, which are worth developing and which are worth preserving.
- 6. Development and promotion of innovative technologies** - Israel is capable of leading implementation of innovative technologies to deal with environmental hazards, curb environmental damage, and mitigate the climate crisis impact. Wastewater purification and treatment technologies presents an example. Israel can and should do so, and market these technologies throughout the world as part of the general effort to deal with the climate crisis. Israel also has plenty to contribute to the development of the blue economy in the region – in developing relevant knowledge, technologies and creating cooperation.
- 7. Positioning Israel as a regional leader** - Positioning Israel as a regional leader in the global effort rather than as a follower, is of intrinsic, normative and political value. This would support Israel's standing in the world, including within the business community, and provide it with an additional resource in the international arena. To do so, Israel must lead the formation of regional institutions responsive to the implications of the climate crisis, take an active part in existing regional forums and cooperate with whomever possible to the extent possible.
- 8. Research and knowledge investment** - Humanity still knows very little about the climate crisis and its implications. That holds true for the Mediterranean Basin, too. The limited knowledge about what the deep seas hold must be expanded, renewable energy resources must be improved and optimized, technology must be developed to monitor and deal with pollution, alternatives must be found for food and non-biodegradable resources. Israel must become a regional and vibrant knowledge hub that leads scientific cooperation in research for the benefit of the region and the world.