

## Climate Change and its Implications on the Euro-East Mediterranean Region

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The annual Israeli meeting of the Israeli-European Policy Network (IEPN) in Herzliya focused on the implications of climate change on the Euro-East Mediterranean Region, the needed steps in order to better address the phenomena in the region, and the opportunities for improving the EU-Israel relations.

### Background

Climate and regional environmental changes have become one of the biggest challenges of humanity in the 21st century, as they affect the environment, the economy and communities worldwide. The political and economic debate on the issue receives growing attention. Climate change poses great challenges on the two shores of the Mediterranean and the southern side in particular. There are nevertheless opportunities for economic and political cooperation. In light of this, the IEPN conference held in Israel in September 2019 focused on the main economic and geo-political opportunities and challenges that those changes have on the cooperation between Europe, Israel and other Middle Eastern countries. In addition, the discussion shed light on the need for Europe to enhance regional dialogue and cooperation in the Middle East. The discussion focused on different topics related to climate change – prolonged droughts, shortage in water supply, extreme heat waves, natural resources, and air pollution. The workshop also focused on the security and political challenges that climate change can contribute to, such migration and food insecurity.

One of the most significant initiative adopted at the global level to reduce pollutant emissions and promote a greener economy was the Paris Agreement, signed in December 2015. The agreement was signed during the United Nations Framework Convention on Climate Change (UNFCCC). The main and ambitious goal of the agreement is to keep the increase of the

global average temperature to 1.5°C compared to the pre-industrial revolution period. It was signed by all 196 state parties to the conference, but it required ratification and some countries have since then threatened to withdraw from it, such as the US.

The signing of the Paris agreement was a very optimistic moment within the global efforts to deal with climate and environmental changes. It demonstrated the global commitment to a greener and healthier economy. However, in the two and a half years that followed the signing of the agreement, many countries have been struggling to overhaul their fossil-reliant economic consumption model and have made little progress in promoting a greener economy and meet regional and local goals. In addition, the objectives that have been decided are on a global average level. It is expected that the Middle East will experience changes at a level that is higher than the global average and therefore would suffer much more from climate change. Nonetheless, one thing remains clear – only by global coordination and long-term response across all economic and social sectors progress could be achieved.

Unfortunately, just like with the Iran agreement, the American President Donald Trump announced in 2017 his plan to withdraw from the agreement on the first possible opportunity provided by the agreement – November 2020, two months before the end of his current presidential term. The goal that President Obama announced following the signing of the agreement was to reduce emissions by 2025 to its level in 2005. However, Trump's policies are already with contrast to that goal as he encourages more drilling of gas and oil, while he sets tariffs on imports of renewable energy products such as solar panels.

Other countries, while remaining tied to the agreement, are struggling to meet their countries' goal. For example, Germany's emissions increased in 2015 and 2016 due to coal burning and emission growth in the transportation sector. Germany is not alone; other countries in the EU are facing similar

problems. The EU goal is to reduce emissions by 40% in 2030 compared to 1990 is most likely unachievable. The European Environment Agency (EEA) provides independent information on the environment and encourages European countries to promote policies that are in line with their Paris agreement specific goals.

On November 2018, the EEA published its annual environmental indicator report, a report that also enables examination of the EU progress on its goals following the Paris agreement. The report reflects a trend of distancing from the 2020 goals. Among the main findings it has been found that ammonia emissions continued to increase, mainly in agriculture production. Energy consumption continued to increase and energy efficiency improvements in the housing sector were insufficient, in addition to an increase in the transport greenhouse gas emission. The report stated that “Looking beyond 2020, the EU can most effectively make progress towards wider sustainability commitments through ambitious policies, and sizeable and sustainable financial investments in support of their implementation”.

In Israel, the responsibility for the fulfillment of the Paris agreement goals lies within the Israeli Ministry of Environmental Protection. In September 2016 Israel published its national plan for implementation of the Paris agreement. Among the main goals mentioned in the program is the goal of reducing greenhouse gas emissions. In order to achieve that goal, electricity consumption should be reduced by at least 17% by 2020 and private car mileage by at least 20% by 2030. Another goal that was set is to increase production of electricity from renewable energy by 17% by 2030. In August 2018 the ministry published a progress report; however, the data presented in it is not updated to the years following the signing of the Paris agreement, as Israel is still working on developing a national monitoring, reporting and verification (MRV) system that would enable measurement of the national progress towards achieving its mitigation goals. In addition, in December 2017 the Israeli government established a National Plan for Energy Efficiency-Electricity Consumption Reduction.

The Paris agreement is however only one aspect of how regional environmental changes are affecting our economies. Another important issue is how the

‘green economy’ is affecting the labor market. In the US, the Department of Labor published specific definitions for ‘green employment’ and therefore enabled a measurement of how the implementation of policies aims to promote a ‘greener economy’ impacts the labor market. The main indicators that were chosen are green trade balance, percentage of green commodities exports and expenses of companies in the industrial, electricity and public sector on protecting the environment. Nonetheless, more research is needed in order to estimate the impact of the green economy on the labor market as a whole.

#### Minutes and Conclusions from the Conference

Three sessions were held during the conference. The first session was about regional, environmental, and the geopolitical consequences of climate change in Europe and the Middle East and North Africa (MENA). As part of this session, discussion focused on different phenomena that are taking place in this region as part of global warming – extreme heat waves, lack of water supply, droughts, pollution, etc. It has also been stressed that climate change has the possibility of shaping events in the political arena and the Syrian case study has been discussed.

The second session was about the European Union-Israel relations and the European role in addressing political and security challenges caused by climate change in the region. During this session, Israel’s progress in achieving the 2015 Paris agreement goals was presented as well as other green economy plans for the short-term and long-term future. In addition, the discussion focused on the security challenges that are caused by climate change – mainly focusing on migration to Europe. Due to the security challenges that climate change poses, it is important to enhance multinational cooperation. It has been agreed that Europe should use its influence in order to lead the countries in the region to the discussion table as climate change could be a factor that leads to better cooperation in the region.

The last and third session focused on regional cooperation to promote the green economy. Some of the needed cooperation that was stressed includes better cooperation between Israel and its neighboring countries. Israel could share its expertise

of water desalination with Jordan and Jordan could in exchange share with Israel its expertise in solar energy. In addition, cooperation with regards to water supply management is needed also with the Palestinian Authority, mainly in the Gaza strip region, where a humanitarian crisis due to lack of water has become a threat. Some of the cooperation initiatives that have been presented include Eco Peace Water, a private initiative to produce energy from ocean waves, and the Arava Institute, which promotes regional cooperation on climate change research.

#### The European Perspective

There is no one clear European perspective with regards to climate change. There are different approaches and interests about this issue which is gaining much more attention in recent years. Green parties managed to increase their power and influence at an increasing rate and only recently millions marched across Europe demanding better policies to tackle the crisis. The focus within Europe is on reducing the emissions of pollutants, increasing the accessibility to the newest most advanced technology and more investment in those technologies. Additionally, there is a growing need to improve the efficiency of institutions both on the national and the international level.

There is a need to change public discourse. Currently many people wrongly believe that there is a tradeoff between economic growth and green economy and regulation, when this is not the case. In addition, even if this was true, the growth in the green movement leads more Europeans to support green regulation even if it harms economic growth. In Germany the majority of the public support such regulation. Yet, it is important to note that greener economy and economic growth go hand in hand, and the only way to harness more people to the fight in global warming is by stressing this point. There’s also a need to make sure that the green economy is more inclusive than the current economy – make sure that it improves the quality of life also of the poorest and reduces social and economic inequalities.

Europeans understand that the effect that global warming has on the MENA region is crucial first and foremost to the local population, but also to Europeans. Therefore, there is a need to increase the

level of European investment in the region, which is currently growing faster in other areas of the world. The effects of global warming such as prolonged draughts, extreme heat waves, and shortage of water supply, diseases, as well as other social and economic indirect consequences are not new to the region but are becoming worse. In recent years temperatures in southern Iraq and Iran rose above to 50°C for two weeks. The 2°C limit that is considered to be dangerous to cross is a global average. Due to the Middle East being a warm region to start with, global warming is expected to raise temperatures by 4°C. Therefore, if the temperature increase could be contained to 2.5°C in the region, through effective policy, this would be considered as an important achievement.

Temperatures are only one challenge. Equally important for the region is the issue of sea level. We are already witnessing less water flowing down the Nile, and the water is more polluted. The farmers of the Nile delta are losing an increasing share of their income, and food security is deteriorating. Water management sufficiency must improve in order to face the challenge and to increase the local population’s resilience. Currently between 30-40% of the water is lost before it reaches end customers (households, fields or factories).

Naturally, the issue of climate security is important, and there is a real concern that shortage of water and heat waves stimulates instability. There is an intense academic debate about the role of climate change in stimulating security challenges such as the Syrian civil war. Some claim that draughts in Syria played an important role in the outbreak of the first riots in the country. Water supply was decreasing in agricultural areas in northern Syria during the early 2000’s. In order to assist the farmers, the Syrian government subsidized the agriculture sector in the area. However, the Syrian economy was hit following the 2007 global financial crisis, and the government could no longer provide those subsidies. Some believe that when the Arab Spring erupted, this is one of the reasons it was more severe and violent in Syria compared to other countries. If true, this is an example to how climate change influences the flow of immigrants and refugees to Europe, the importance of border protection and the potential to destabilize the MENA region.



International and regional cooperation and dialogue are crucial in order to increase the stability and security of the region. Israel should work together with countries such as Turkey and with the Palestinians in order to promote peaceful dialogue. The Palestinians signed the 2016 Paris agreement; however, they are claiming that due to lack of control over their entire territory they cannot perform effective policy in order to meet its goals. Israel, which is a leading country with regards to irrigation technologies and water desalination, should use that expertise in order to assist neighboring countries. Jordan could also assist other countries as it has a developed network of solar energy. Cooperation between Israel and Jordan on those issues could increase the bilateral relations between the countries.

Furthermore, there's a big difference between oil producing countries and other countries in the region. Countries that are oil producer agreed only to vague goals in the Paris agreement, while other countries have very detailed plans in order to tackle global warming. For example, Morocco is a leading country in solar energy, and Tunisia addresses global warming in their newly adopted constitution. Access to water is a big issue in Yemen and should be addressed in any future peace agreement that would be presented to solve the current situation in the country. Iran, Iraq and Saudi Arabia suffer from dust storms and need international assistance in order to address this issue. This could be a diplomatic tool used by Europe.

Currently, Europe lacks stakeholders in the region in order to address climate security. Projects should start small and on the ground, and be scaled up to national and international level upon success. There's a need for a more pro-active approach in the region in order to improve the situation. One example is the need to reduce beef consumption that contributes to the water shortage. Equally important is the need to tackle climate change in the region not only on a bilateral level but to look as the MENA region as a whole. At present, both Germany and the UK have plans with the Arab League, however it is important to create cooperation on the European Union level as well.

#### The Israeli Perspective

One of the challenges that Israel faces with regards to climate change is related to its location. On the one hand, Israel is in close proximity to hostile countries. On the other hand, the Middle East, a densely populated region, is extremely hot, and there is a constant threat of prolonged droughts. Together, this poses challenges to Israel that deviate from the environment domain to the security one. Even without global warming the Middle East experiences shortage in water. Former Israeli Prime Minister Ehud Barak, once compared Israeli to a villa in the jungle, and in this vein – if the jungle is burning, the villa is expected to be caught in the fire as well. Nonetheless, while the threat to Israel from an ongoing drought is more immediate, Europe is also expected to be affected by it - first and foremost by large waves of refugees marching from the Middle East to Europe. In addition, another internal challenge that Israel faces is that it has a very dense population, and a high growth rate of population, which could make the impacts of droughts even more severe.

In order to better address this issue, and the risk of prolonged droughts, Israel should raise the public awareness to the global crisis. While in Europe millions of people are already marching the streets, in Israel this is considered to be a niche issue not only among the public, but more severely, among policy and decision makers. It is hard to harness politicians to issues that do not have immediate effect. Yet, it is in Israel's core interests to ensure that the consequences of global warming in neighboring countries do not escalate to a full crisis of water supply shortage. This could be achieved only through dialogue, and Israel should take a pioneer role in the region and use this as an opportunity to promote peace and bilateral relations with its neighboring countries in general and with the Palestinians more specifically.

Even so, there has been some success in Israel in raising the awareness on this issue. One positive example is the discovery of the natural gas reservoirs off the Israeli coast. Generally, these discoveries stimulated public and political interest, including the environmental context of these discoveries. Still, the Israeli media must do much more in order to expose the public to this issue and to report more about global events in this arena. Typically, the media

fixation is on short term immediate security threats that Israel faces.

While the public, the media and the politicians do not pay much attention to the issue, the professional personnel in the government are working on addressing the issues of climate change. With regards to Israel itself, the goals which Israel committed itself to following the 2016 Paris summit are modest – 70% of the electricity should be produced using renewable energy and a 20% reduction in usage of private transportation methods. The fulfillment of the Paris agreement goals in Israel is expected to go hand in hand with the improvement of the Israeli economy and bare no additional cost to the Israeli tax payer. The lack of support from the Israeli Ministry of Finance is mainly due to a conservative notion and misconception with regards to the positive consequences this should have on the Israeli economy. Despite this, it is yet unclear how Israel would achieve this reduction in usage of private transportation. Israel's 2050 goals focus on 4 main topics – Energy, sustainable transportation, urban planning and waste and resource management.

With regards to energy, the goals are to shift to more renewable energy and electrification. The importance of increasing sustainable transportation is due to the fact that Israel currently suffers from the worst traffic jams among OECD countries. Urban planning is crucial as 90% of Israelis live in urban areas, yet most of them are suburbs that are exclusively dependent on private cars. Those suburbs suffer from very low land efficiency, and there is an increasing need to change the way Israel plans its urban infrastructure to allow a more sustainable ways of transportation and mixed use of land. With regards to waste and resource management, Israel should dramatically increase the share of waste being recycled – currently in Israel it is only 20% of the waste, compared to 50% in Europe.

Currently, the Israeli Ministry of Environmental Protection is working on passing a climate law by the summer of 2020 and conducts round table discussions with other ministries such as the transportation, economy and energy. In addition, as Israel is currently exceeding its deficit target, the Ministry of Environmental Protection is working on leveraging this in order to promote a carbon tax (as

well as a disposable plastic tax). Israel taxes on fuel are quite heavy, yet a carbon tax would also refer to greenhouse gas emissions. In the first stage, if it passes, this tax would be relatively modest, seeking to generate a tax revenue of 5 million shekels a year. It is only a first step, and there is some optimism about the possibility of passing this tax.

Again, Israel should use the urgent need to deal with climate change as a leverage to advance its bilateral relationships with neighboring countries. The first and most prominent example is Jordan that suffers from a severe shortage in water supply and not all citizens are connected to the sewage system. According to some estimates, 37% of the agriculture land in Jordan is about to go dry. Jordan has had to raise the taxes on water in order to be able to invest in better technology of water management. As Israel has managed to overcome this issue using desalination, it should assist Jordan as well and thus to improve the relations between the countries. Israel's decision to invest in desalination was a critical and important decision – without it and following years of droughts, its situation could have been much worse. On the other side, Israel could gain from cooperation with Jordan as they have an expertise with regards to solar energy that could be used also in Israel. Jordan is not the only country which Israel could collaborate with on this issue. The shortage of water supply is also influencing Egypt where the demand is greater than the supply. More urgently, there is a particular importance for cooperation between Israel and the Palestine Authority with regards to water supply and water management. Therefore, there's a growing need for collaboration between Israel, Jordan, the Palestine Authority and Egypt with regards to improvement of water management and desalination of water.

Currently, the issue of water in the region had been addressed in two agreements – the Israeli and Jordan peace agreement, and the Oslo B agreement between Israel and the Palestine Authority, which was considered at the time of its signing to be a temporary agreement. According to the agreement Israel supplies to Jordan 55 million Cubic of water each year. The agreement does not include a reference to the possible change in needs that Jordan would face due to global warming. On the Israeli side, the Sea of

Galilee, a major source for water is getting drier, and year by year the water level in the lake goes down and gets closer to the black line – height from which no more water can be pumped from the lake. Yet, as Israel is becoming less dependent on the Sea of Galilee and shifts the focus to desalinated water, it is no longer a zero-sum game with Jordan.

Unfortunately, with the Palestinian Authority, Israel has no clear policy with regards to water supply, even when it is clear that it is Israel's interest to provide the Palestinians with more water. While the Israeli-Palestinian conflict is hard to solve, the issue of water is relatively easy, and should be used as a leverage to de-freeze the relations. Currently, the situation in Gaza is the most severe – they are over pumping water and damaging the quality of water in what could develop to a full-scale humanitarian crisis. Concern in Israel is that the situation in the region could escalate to what we already see in the Sub Saharan region where tens of thousands of people are getting killed due to clashes between farmers and herders due to the climate issue and the lack of water. Another concern of Israel is that Turkey and Iran are using the situation and are contributing in different ways to the shortage of water supply in the region, mainly to Syria and Iraq.

In Israel, in addition to government involvement and effort that is on the rise, there are also private and third sector initiatives, which receive government support, which promote a greener economy. Two examples are the Eco Wave Power and the Arava Institute for Environmental Studies. Eco Wave Power is a private company which produces renewable energy from ocean and sea waves. This initiative is important as currently 60% of emission comes from the energy production industry. This technology is considered to be much harder to commercialize than energy produced from winds, as even if the technology is quite simple, the systems have high costs. Naturally, higher waves can produce more energy. The system is composed from floaters that are in the water, and as the weather becomes harsher, they stop operating and are brought to the shore. There is no risk of oil leaks or spills and the technology can not harm the environment. Currently there are two operational projects – in Gibraltar 50% of the electricity is being produced by Eco Wave Power, and in Jaffa port. It is

expected to be expanded to other European countries such as Italy, Portugal and Scotland. As Sweden is a world leading country in renewable energies, and investors in the country are very savvy on the issue, the company chose to go public in that country.

The Arava Institute for Environmental Studies was established following the signing of the Oslo agreements and conducts trans-boundary environmental work. The idea behind the institute is to establish centers for Jordanians, Palestinians and Israelis, that would operate together and study environmental and technological issues. After years in which the Israeli political system drifted from dealing with the Israeli-Palestinian conflict, it has been decided to reframe the goals of the institute and nowadays it deals mainly with promoting cross border environmental issues in order to impact the political arena on such issues and enabling climate change to become an issue that brings people to the table. Some of the activities that are being promoted by the institute are assisting the humanitarian crisis in Gaza, conducting applicable research on regional climate change issues with emphasis on the Palestine Authority, and creating a safe space for cooperation. The institute cooperates with Palestinian and Jordanian scientists and there is an emphasis on trying to bring even more Jordanians to collaborate with the institute. All operations are being funded by the European Union, and there is a growing importance that Europe would be involved in creating the umbrella for regional cooperation in the field of climate change.

## Promoting regional cooperation to foster green growth in the Southern and Eastern Mediterranean<sup>1</sup>

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### Executive Summary

As the Southern and Eastern Mediterranean (SEMED) region progressively embraces the notion of green economy, there is a pressing need to develop more synergistic regional actions that enhance strategic initiatives at the local and national levels. In the aftermath of the adoption of the Paris Agreement in 2015 it became clearer that in order to translate the growing environmental awareness into a low carbon, inclusive and green economy, the key element to ensure success was the ability to finance a new economic model of development. To this end, green and climate finance are indispensable tools to advance a green economy as there is a massive need in investments to finance this transition. Hence, the capacity to leverage and mobilise different sort of private and public finance from local, national, regional and international sources has become key to deliver a low-emission and climate resilient economy in line with the commitments adopted at the COP 21 in Paris and the subsequent meetings the years after.

There is a considerable absence of long-term targets amongst the international and regional institutions' strategies operating in the Mediterranean countries. In spite of a relative alignment of these institutions' strategies with the objectives set in the 2015 Paris Agreement, some of these institutions are more ambitious than others in establishing long term goals. Ensuring more coordination among international and regional organisations, improving the measurement of green finance initiatives, increasing transparency and homogeneity amidst the initiatives promoted and financed by these institutions could create incentives for these organisations to establish more ambitious targets in the promotion of green economy and green

finance in the region.

In light of still many existing investments from public financial institutions, national and international, to the fossil fuel industry, there is an urgent need to start phasing them out with a view to enforce a coherent policy for a green economic transition that complies with the Paris Agreement. To this end, the leadership that can be exerted by public institutions such as regional organisations and IFIs can create incentives and conditions for the private sector to move into that direction. Collaboration between countries, regional organisations, and multilateral financial institutions should underpin common strategies to reach targets in the scope of green economy and green finance. By coordinating strategies and efforts from different institutions in the pursuit of single projects, it should become easier to scale them up and replicate those projects into other countries of the region, thus generating regional spill-overs that bring greater impact.

Investing in green projects might turn to be riskier than other equity strategies, as many companies in this arena are in the development stage, with low revenues and high earnings valuations. At least, the perception among private investors that risk is higher than in other economic sectors is a major impediment to promote a more robust green economy. Hence, expanding the granting capacity, loan portfolios, guarantees schemes and other non-traditional financing instruments of the IFIs, including multilateral, regional and bilateral development banks, is crucial to enhance the capacity to exert the leadership we were mentioning before and mitigate the risks associated to this sort of operations. Given that most of the countries in the SEMED region are still in the developing stage, it is relevant for EU countries to take that into account as to compensate them with the "polluter pays" principle.

The absence of stronger transnational regulatory frameworks hampers the facilitation of green financial products. By enacting such frameworks a more clear, controllable and standardised criteria for green financial markets with long-term incentives would be fostered. Similarly, many countries in the SEMED region lack an appropriate and effective regulatory framework, coupled with an operational

<sup>1</sup> This paper has been written building on a joint research work conducted by the European Institute of the Mediterranean and Euro-union in 2017.



climate change governance framework that allows public, private and civil society sectors to come together under an umbrella governance framework. Experience in the region like the one depicted by Morocco shows that an umbrella supported by governments can mobilise the required capacities to attract the financial resources necessary to reach a greener and more sustainable economic model.

For the full-text article: <https://bit.ly/2oWhQdU>



## Climate Change, Water Security, and National Security for Jordan, Palestine, and Israel

*EcoPeace Middle East, 2019*

### Executive Summary

The Middle East and North Africa region is considered a climate hotspot due to its natural water scarcity, low levels of socio-ecological resilience, social tensions and political conflicts, and ongoing immigration crisis. Over the course of the century, Jordan, Palestine, and Israel are projected to experience an average temperature rise over the Mediterranean of ~1.4C to ~4C; a general decrease in precipitation of 25 percent regionally and up to 40 percent locally; a shift in rain seasons from winter and spring to autumn; a higher frequency and intensity of extreme weather events such as droughts, flash floods, and forest fires; as well as a growing rate of desertification. Despite the effects of climate change being already observable in the region, the three countries have yet to fully recognize the connection between the negative impact of climate change on their neighbours' national security, and the implications for their own national security. Based on this lack of understanding, Jordan, Israel, and Palestine have done little to develop a regional, integrated roadmap for climate related national security.

This report concludes that too little attention is being paid to the implications of climate related change for national and regional security. The term threat or risk multiplier is often used to describe the catalytic effect of climate-related change on states and societies. In this sense, it is not the climatic changes themselves that are said to cause insecurity. Rather, it is the adaptive capacity of a state that ultimately determines the extent to which climate related change impacts the socio-economic development and political stability of a country and, therefore, of a region. The adaptive capacity of a state is weakened if the country exhibits unstable political institutions with low accountability, political repression and/or corruption, social tensions, a history of intra- or inter-state conflicts, as well as unsustainable livelihoods

and damaged infrastructure, among others. In the regional context of Jordan, Israel, and Palestine, climate-related changes are forecasted to impact a wide range of sectors where the adaptive capacity of the state might already be weak, particularly in Jordan and Palestine. These include:

Reduced availability of natural water leading to greater difficulty to meet domestic water needs and resulting in rationing of water. The intermittent water supply fuels public animosity that is already present on non-water related issues.

Reduced agricultural production as a result of less available water, higher temperatures, and extreme weather events. Lower exporting capacity and higher dependence on imported foods are likely going to cause higher food prices, lower and less stable incomes, and possible food shortages for some staple food products.

Economic recession in the agricultural sector as a result of lower agricultural yield could lead to the erosion of livelihoods, internal displacement of people, and greater food insecurity.

Increased pressure on physical infrastructure due to extreme weather events that leads to the collapse of infrastructure in the field of transport, electricity, and other essential services, as well as loss of life due to resulting accidents.

Outbreak of new climate-related diseases, placing additional stress on already inadequate health services contributing to the overall deterioration of public health.

These impacts will have serious implications for the social and political stability of the region. Systemic failure to respond to humanitarian and environmental crises creates dissatisfaction with the governing authorities. The built-up pressure from within may inadvertently ignite public turmoil that will challenge the resilience of the system. In the context of the highly inflammable Israeli-Palestinian conflict, this could easily transmute into uprisings and mass riots that transcend national borders and threaten national security in Israel, Palestine, and Jordan.

At the same time, Jordan's acceptance of hundreds of thousands of Syrian refugees since the onset of the civil war has put the country before new challenges. The stark influx of refugees has already strained

Jordan's finances, its natural resources, as well as the patience of its people.

The bilateral agreements in place between Israel and Jordan and interim agreements between Israel and Palestine were never designed to accommodate climate-change related events such as steadily declining water availability, prolonged droughts, and other extreme weather events. The repercussions of climate change will be felt on multiple dimensions – from global outcomes to national, regional, and local reverberations. Though the writing is on the wall, especially following the Syrian civil war, the national security-related implications of climate change on the broader region's stability has not led to a significant change in policy or willingness to cooperate across borders.

Regional cooperation is needed to combat the threats of climate change that will in turn be a step in a cycle of positive interactions that builds trust. The Water Energy Nexus project developed by EcoPeace Middle East offers one such opportunity through which all three countries engage in a regional approach to counter the effects of climate change and its potential negative security implications, while advancing water and energy security region wide.

Based on a set of national roundtables organized by EcoPeace Middle East and held in each country during 2018, and a regional roundtable held at the Dead Sea in Jordan in November 2018, EcoPeace Middle East proposes the following policy recommendations:

Promote a paradigm shift to integrate climate change considerations onto the national security agenda of each country. This entails the assessment, analysis, and development of strategies to respond to the national security threats of climate change at the highest levels of the respective, often competing, national security directorates and authorities in each country.

Resolve final status natural water allocations between Israel and Palestine, so that cooperation can advance based on greater political certainty in the water sector for Palestine.

Create a roadmap for a regional approach to address climate change adaptation and mitigation issues.

Devise strategies to effectively upgrade and

improve water infrastructure and tariffs (Jordan and Palestine).

Encourage the international community to invest in national projects in Jordan and Palestine that advance regional approaches to climate change issues.

For the full-text article: <https://bit.ly/33xi9Ln>



## From Risks to Opportunities – Climate Security and Water in the MENA region

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### Executive Summary

Climate change and water scarcity strongly hit the region of the Middle East and North Africa (MENA). Induced and aggravated by these phenomena, the region faces unprecedented and multi-faceted socio-economic, political and security challenges that affect the whole Euro-East Mediterranean region. European and MENA states have a common interest in addressing the complex and urgent challenges related to climate change and water scarcity; the topic of migration can serve as an entry point for joint efforts. To develop better climate change and water scarcity adaptation policies, it is also important to improve natural resource management and governance as well as to include the local level.

The MENA region is one of the global climate change hotspots. Even if the climate-related phenomena are per se nothing new to the region, the multitude, frequency and severity of direct and indirect climate change consequences are unprecedented. Moreover, almost all kinds of climate change-related consequences are hitting the region. In the water scarce MENA region, the various water-related consequences are of particular importance (von Lossow 2020). The rise in temperatures, for example, translates into more frequent and prolonged heatwaves with temperatures above 50°Celsius, as it was the case in the summer of 2018, resulting in an increase of water shortages, prevalence of diarrhoeal diseases and human fatalities. In the last two decades, Israel, Jordan, Syria and Iraq have experienced several protracted droughts. Rising sea levels, to mention another example, accelerate coastal erosion as well as the insalination of groundwater resources and land. It diminishes crop yields and harvests in some of the

region's most important agricultural centers such as the Nile delta in Egypt, to the detriment of the local agricultural productivity and the food security in the region. Some of the climate change impacts are even mutually reinforcing, such as land degradation and declining water availability. On the other end of the spectrum, there is also abundance of water, changing snow melt patterns and torrential rainfall aggravating or causing floods even in dry areas, such as the flash floods in Jordan in autumn 2018 (Al Jazeera 2018).

Climate change-related impacts of primary order, such as rising sea-levels, increasing temperatures and extreme weather events, are aggravating and are aggravated by broader socio-economic trends, such as population growth, migration and urbanization. More people need more water for drinking and sanitation, agriculture for food production and hydro-power for electricity. Economic development, rising incomes and standards of living foster water-intense lifestyles – the better people are doing economically and financially, the more water they consume (von Lossow 2020). Immigration, which is also contributing to a growing population, aggravates for example the provision of basic supply services. In the case of Jordan, the immigration waves of the last two decades – with 750,000 refugees from Iraq after 2003 and about 1.4 million Syrians after 2011 – drastically worsened the water situation and aggravated shortages. While Jordan was a relatively water rich country in the region about 70 years back, today's per capita water availability ranks among the lowest worldwide (von Lossow/Shatat 2020). Linked with domestic migration and population growth taking place in the cities, the traditionally growing urbanization across the region poses additional challenges for often already overburdened infrastructures. As more and more people live in urban areas, it is cities that have to bear the increasing burden of basic service delivery, such as water, electricity and healthcare – a critical challenge, since failing to supply these services can stir public

discontent, intensify tensions among the population and trigger street protests or uprisings. The impacts of climate change, for instance on water availability, render the supply of services more difficult.

For the full-text article: <https://bit.ly/2OMt8tU>





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