

# Winds of Change, Tides of Power

## The Eastern Mediterranean's Climate Dilemma

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## Abstract

The Eastern Mediterranean region faces a complex interplay between climate change impacts and the growing influence of great powers through their competing infrastructure development initiatives. China's Belt and Road Initiative, the EU's Global Gateway, and the G7's Partnership for Global Infrastructure Investment vie for influence, each with its own strategic objectives, posing challenges for advancing climate action in a context of multipolarity and rivalry. Countries in the region must navigate shifting geopolitical sands, balancing short-term gains with long-term sustainability. The absence of a unified regional approach further complicates this landscape. To forge a low-carbon future, Eastern Mediterranean countries must work together to establish a coordinated vision, engage with external powers to align investments with regional priorities, and prioritise cooperation on climate action.

## Introduction

For millennia, the lands bordering the Eastern Mediterranean have been a crossroads of cultures, a stage for shifting populations, trade, and geopolitical events that have shaped the course of history. These lands have also been a stage for many geopolitical and socioeconomic events that have shaped the lives of these populations. At times, environmental changes have themselves triggered and shaped those changes and helped write chapters of this region's long history.

The high variability in rainfall across the Levant (a region that includes modern-day Syria, Lebanon, Jordan, Israel, and Palestine) and the south of Turkey has always shaped the patterns of human settlement and agriculture, as the area of sedentary habitation expands and shrinks during wet and drier years. Furthermore, major environmental changes have tended to have more lasting impacts. The climatic shift to drier conditions between the 15<sup>th</sup> and 19<sup>th</sup> centuries, for example, coincided with the abandonment of settled villages across the region and a shift towards nomadic life.

In the 21<sup>st</sup> century, the East Mediterranean region – which includes the countries of the Levant as well as Turkey, Egypt and the island of Cyprus – is on the cusp of another major environmental shift. The region's exposure to climate change impacts, and its own vulnerabilities, present it with several long-term challenges. As the region grapples with these challenges, it will be important to understand the complex interplay between environmental changes and the social, economic, and political factors that shape the lives of the populations in this diverse and historically significant part of the world. This interplay is further complicated by the growing influence of great powers, whose infrastructure development initiatives have a regional scope and are poised to play a significant role in shaping the region's response to climate change. The decisions these powers make in the coming years will have far-reaching implications for the region's sustainable development and its ability to forge a low-carbon future.

## Weathering the Storm with a Leaky Roof

Due to its distinctive geographical features, the Mediterranean basin is considered a climate change 'hotspot', meaning it is particularly vulnerable to the impacts of climate change. The region is expected to receive less precipitation, with the East Mediterranean projected to receive up to 30% less rain if current trends continue.<sup>1</sup> Climate change models are also projecting longer droughts and more devastating floods, with reduced groundwater storage and increased evaporation diminishing the region's ability to mitigate the effects of dry periods.

The East Mediterranean is also likely to experience temperature increases above the global average. Under the business-as-usual scenario, which assumes that greenhouse gas emissions continue to

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rise at the current rate, the increase in average temperatures around the East Mediterranean could exceed 5°C by the end of the century.<sup>2</sup>

These physical changes are anticipated to result in socioeconomic impacts. The agricultural sector is predicted to be the most severely affected, with reduced water availability, increased temperatures, and shifts in the growing season all combining to reduce agricultural productivity. This will have an impact on food security, as the region will be more dependent on food imports and thus vulnerable to global shortages, price shocks, and increasing disruptions. Reduced productivity will also have an impact on livelihoods, particularly as most of the region's agriculture is rain-fed, with the exception of Egypt and Israel. In Syria, almost two-thirds of the rural population rely on rain-fed crop production for food and subsistence.

Tourism is also expected to be adversely affected by climate change due to water scarcity and unattractive summer weather conditions, which could deter visitors and strain the industry's resources. This poses a major economic risk for countries that depend on tourism for income and employment. Job losses in agriculture and tourism are expected to lead to urban migration in search of city jobs, resulting in higher urban unemployment, reduced municipal services provision, and potentially increased social tensions.

These impacts would have been enough to contend with, but they are also compounded by existing structural vulnerabilities. The region's population and environmental footprint have long exceeded the levels that could be sustained by available water and biocapacity. Growing demand for natural resources puts more pressure on already struggling infrastructure.

Additionally, the region's crumbling infrastructure is far from resilient to the impacts of climate change. Like a house with a leaky roof, it leaves its inhabitants vulnerable to the storms ahead. Being largely reliant on one or two sources of energy, one or two sources of water, and one mode of mobility, regional infrastructure lacks redundancy and flexibility to address any disruption caused to these systems due to climate change.

One of the most critical areas where the region's infrastructure is failing is in water management. Across the East Mediterranean, a significant portion of precious freshwater resources is lost due to leaky pipes, aging distribution systems, and inefficient irrigation practices. It is estimated that half of fresh water is lost during the distribution process in Egypt, Jordan, Syria and Lebanon, 40% in Palestine, and 20–30% in Cyprus.<sup>3</sup> In many parts of the region, groundwater is being abstracted from aquifers at an unsustainable rate. The region also lacks sufficient infrastructure to fully reuse its treated waste water.

The consequences of this wastage are far-reaching, particularly in a region already grappling with water scarcity. Lost water means reduced availability for agriculture, industry, and households placing additional stress on communities and economies. It also means that the region is less able to buffer against the impacts of climate change, such as more frequent and severe droughts. Leaky water infrastructure is not only failing to protect against water shortages but is also squandering the limited resources that could help the region weather the coming climate crisis.

## Gathering Clouds

The impacts of climate change are already affecting the region's climate, economics, and politics. The region has experienced a marked increase in the severity, magnitude, and duration of droughts over the last decade. The drought that affected the region between 1998 and 2012 was the worst drought since the 12<sup>th</sup> century. It resulted in damage to agriculture, the death of 85% of private cattle, loss of rural livelihoods, and ultimately the displacement of 800,000 people who relocated in search of urban

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jobs, creating informal settlements around cities such as Homs, Daraa, and Hama.<sup>4</sup> This led some scholars to suggest that the drought contributed to the Syrian uprising in 2011.

Viewed this way, climate change is considered a threat multiplier, meaning it can exacerbate existing challenges and tensions for this fragile region, rather than a future challenge that should give way to other pressing problems. Its impacts on agriculture, resource competition, and living conditions are all correlated with conflict, instability, and other violence – although no direct causal link has been established between climate and violent conflicts.

In this arid region, increased competition for water resources caused by climate change is exacerbated by the reality that every country in the region shares at least a river or an aquifer with its neighbours, and by the lack of transboundary water management in some cases. The construction of the Southeastern Anatolia Project in Turkey, which includes 22 dams on the Tigris and Euphrates, is estimated to have reduced the average annual flow in the Tigris-Euphrates River Basin to 45% of the long-term average,<sup>5</sup> while Israel's control of the Jordan River limits Syrian, Lebanese, Jordanian, and Palestinian access to its waters.

Moreover, climate change could also exacerbate existing grievances by fuelling political discontent, socioeconomic tensions, and unrest. Its uneven impacts might align with existing rifts between communities. Such inter-communal tensions, coupled with the deterioration of living conditions, could provide a recruitment opportunity for terrorist organisations.

For armed violence to erupt, additional factors such as a political ideology are needed, but when it does, it often securitises natural resources and infrastructure, reducing communal resilience to climate change impacts. For example, in 2016, less than two-thirds of Palestinians under Israeli occupation had access to safe and adequate drinking water,<sup>6</sup> while 95% of the water supply in the Gaza Strip is contaminated by sewage and seawater infiltration.<sup>7</sup> In Syria, the conflict damaged half of the country's water distribution infrastructure, reducing water supply rates to 5–30% of pre-war levels.<sup>8</sup>

To address climate challenges, countries in the region must work together to address the underlying social, economic, and political factors that contribute to regional instability. This will require a concerted effort from governments, civil society organisations, and the international community to foster cooperation, build resilience, and promote sustainable development in the face of a changing climate.

## United in Adversity

If regional historical precedents are anything to go by, the chances of resource competition spilling over into conflict might prove limited. In a study by the World Bank, water-scarce areas of the Middle East and North Africa have been shown to have experienced more instances of water cooperation (57%) than water conflict (36%).<sup>9</sup> While the share of conflict events in the East Mediterranean is likely to be higher owing to the conflicts between Israel and Arab countries over the waters of the Jordan River, this confirms evidence from other parts of the world suggesting that long-term exposure to water scarcity strengthens preference for cooperation. Such a preference must be built upon through regional collaboration if the worst impacts of climate change are to be avoided.

The recently formed East Mediterranean Gas Forum has demonstrated that the region could cooperate on issues of common benefit. The Forum itself – if reformed to encompass shared climate and energy challenges, and to include Turkey, Syria and Lebanon – has the potential to become a vehicle for climate action, collaboration and conflict prevention. But historical grievances and unresolved conflicts such as those in Syria, Israel–Palestine and the island of Cyprus all present obstacles that need to be addressed first. Regional rivalries must also give way to a spirit of partnership. The abrupt

cancellation of the water-for-energy agreement between Jordan and Israel following the outbreak of the Gaza war demonstrated that peace and climate collaboration must go hand in hand.

## In the Great Game

To address these challenges and develop national and regional climate adaptation and mitigation capabilities, the Eastern Mediterranean region urgently needs technical and financial support. This fact has not gone unnoticed by great powers whose infrastructure development initiatives have a regional scope and are poised to target the region with infrastructure projects.

Infrastructure development has long been used by great powers to advance their strategic objectives, long before the Marshall Plan was implemented in Europe 75 years ago. From the perspective of these powers or other supporting countries, infrastructure development allows for influence to be gained within the recipient nation at different stages of the project cycle. Financing, the first and largest avenue, enables great powers to extract concessions, reward allies, access local resources, and shape projects to suit their interests. The design and construction stage provides opportunities for setting standards, transferring technology, and collecting intelligence, while the final stage of ownership and operation can be leveraged for deeper intelligence gathering and restricting competitor access.

Moreover, great powers can accrue more influence if they, or businesses they control, own and operate a network of infrastructure assets, allowing them to monopolise critical skills and technologies and enhance their resilience to disruptions during conflicts and disasters. This incentivises great powers to strive for creating larger networks of infrastructure elements such as ports, roads, and railroads, further consolidating their strategic advantage and influence in the recipient countries.

The first to establish a presence in the region has been China's Belt and Road Initiative (BRI), which recently marked a decade of infrastructure investment. From China's perspective, the Eastern Mediterranean is a vital geostrategic crossroads to its major markets in Europe and is already a key part of the BRI. The BRI has not placed a lot of importance on climate projects, but China has recently indicated that the next stage of the BRI will be greener and that it will further deepen cooperation in green infrastructure and energy projects with developing countries.

The BRI has made significant inroads in the Eastern Mediterranean region, with various projects and investments in countries such as Egypt, Turkey, Israel, and Greece. In Egypt, the BRI has focused on infrastructure development and energy projects, with significant Chinese investments in the Suez Canal Economic Zone, the new administrative capital, and the renewable energy sector.

Turkey, given its strategic location at the crossroads of Europe and Asia, is emerging as another partner for China with investments in transport infrastructure totalling \$4 billion including the Yavuz Sultan Selim Bridge and the Kumpart container terminal in Istanbul. China also operates the Haifa port in Israel, and its state-owned company COSCO holds a controlling stake in the Port of Piraeus, which has become a key hub for Chinese trade with Europe.

The EU's recently announced response to the BRI, known as the Global Gateway (GG) initiative, is likely to emerge as the region's most influential initiative. This is due to the region's proximity to Europe and the EU's stake in the region through Cyprus, a member state. The EU's recognised leadership on climate action and its domestic flagship initiative, the European Green Deal, also support expanded collaboration.

The last, but not least, infrastructure initiative aiming to establish a presence in the region is the G7's Partnership for Global Infrastructure Investment (PGII). In 2023, it made headlines with the unveiling of the India – Middle East – Europe Economic Corridor (IMEC), a trade and infrastructure route that



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presents a direct competitor to China's BRI in the region. With the United States being the driving force behind the PGII, the initiative could leverage American alliances and security architecture in the region to shape its infrastructure.

Unlike the BRI, both the PGII and the GG have prioritised high-quality, sustainable human and physical infrastructure that incorporates green principles from the beginning. President Biden stated that the PGII would allow countries to "see the concrete benefits of partnering with democracies".<sup>10</sup> Also contrary to the BRI's dependence on government finance, the PGII and GG's approach to finance envisions a mix of investment, aid, and blended finance for projects.

## The Chessboard of Climate Geopolitics

This emerging competition between infrastructure investment initiatives highlights how the increasing multipolarity in the geopolitical landscape and intensifying great power competition pose challenges for advancing climate action in the Eastern Mediterranean. Competing interests and priorities among major powers can hinder coordinated efforts to address climate change, as each pursues its own strategic objectives in the region. Moreover, geopolitical tensions and conflicts, such as disputes between regional states, risk diverting critical attention and resources away from the urgent task of developing climate resilience.

As countries in the Eastern Mediterranean manage their varied partnerships and alliances with the US, EU, and China, the effectiveness of climate initiatives may be impacted by shifting geopolitical sands. The pressure to align with one great power or another could lead some states to prioritise short-term economic gains over long-term sustainability, further complicating the path to a low-carbon future. For example, nations might choose to adopt a cheaper or faster route to financing energy projects that locks-in carbon emissions for decades.

One scenario in which this could occur is one where the EU offers to fund a large-scale project for decentralised renewable energy production in Lebanon as a solution for its chronic shortages and in order to reduce its dependence on fossil fuels. The project would necessitate grid restructuring and upgrades to facilitate decentralised power generation. In this scenario, China would simultaneously offer to finance the rapid construction of a new natural gas power plant, which could be fuelled by future discoveries of offshore natural gas and necessitates a different approach to grid modernisation more suited to centralised electricity generation. Such scenario could leave Lebanese policymakers in a dilemma, forcing them to make a difficult choice balancing energy security with the energy transition, and implementation speed with long-term sustainability. Additionally, they would need to make difficult calculations regarding their political alignments.

The region has not yet agreed on a unified approach to climate adaptation and mitigation and is thus unable to set regional parameters for engaging initiatives on its own terms or in a way that ensures integration. In the absence of a regional framework, the initiatives are unlikely to spearhead infrastructure integration themselves, given the differing interests of each grand strategy, their quest for influence at the expense of other great powers, and their reluctance to share information. This lack of a coherent and consistent approach to climate policy will inevitably result in fragmented, disjointed, and less efficient climate infrastructure.

The heightened rivalry between great powers also threatens to undermine much-needed regional cooperation on shared climate challenges. As countries in the Eastern Mediterranean face increasing pressure to choose sides in the geopolitical competition, collaboration on transboundary issues like climate change may fall by the wayside. While some countries might be able to leverage great power competition to their advantage and access initiatives on their own terms, in other cases, making a choice would result in increased dependence. This threatens to deepen regional rifts and tensions by creating competing visions for regional climate action. Climate infrastructure, as part of mechanisms

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for advancing grand strategies could – paradoxically – replace one cause of regional instability with another in this arena of great power competition.

Finally, the region's ability to forge a sustainable future, and the pace at which it will do so, will depend to a large extent on how the US, EU, and China choose to wield their influence, whether through regional institutions, development finance, technology transfer, or other means. The decisions these powers make in the coming years will shape the incentives for countries in the Eastern Mediterranean to prioritise either green development or business-as-usual approaches.

## Charting a New Course for the Region

To navigate the complex geopolitical landscape and ensure that great power competition does not undermine the region's climate goals, countries in the Eastern Mediterranean must work together to establish a coordinated vision for addressing the common challenge of climate change and the required socio-economic transformations. Developing this shared vision will be key to guiding engagement with external powers and ensuring investments align with regional priorities. This vision should serve as a framework for regional climate action, guiding engagement with external powers and ensuring that investments and initiatives align with the region's priorities and development goals.

By presenting a united front and a clear set of priorities, the region can engage with the US, EU, and China in a way that establishes genuine and equitable partnerships. This approach will enable countries in the Eastern Mediterranean to co-design investments and funding in line with national policies and the regional framework, ensuring that external initiatives complement existing plans and support long-term sustainable development.

However, forging this regional consensus will require countries in the Eastern Mediterranean to overcome their differences and establish effective mechanisms for collaboration. This will involve addressing long-standing political tensions, building trust, and finding common ground on shared challenges. Only by working together can the region hope to navigate the complex geopolitical landscape and secure the support it needs to build a more resilient and sustainable future.

To establish genuine and equitable partnerships with the US, EU, and China, countries in the Eastern Mediterranean must develop a collaborative approach that prioritises regional consensus and a shared vision for sustainable development. This approach could involve the creation of a comprehensive regional climate action framework that outlines the region's climate priorities, targets, and strategies. Existing regional organisations, such as the Union for the Mediterranean, the Eastern Mediterranean and Middle East Climate Initiative, or the East Mediterranean Gas Forum, could be reinforced and expanded, providing a platform for dialogue, coordination, and decision-making on climate-related issues.

Furthermore, countries in the region could collaborate to identify and prioritise key climate infrastructure projects, such as renewable energy installations, water management systems, and climate-resilient agriculture initiatives. By presenting a united front and a clear set of investment priorities, the region can engage with external powers more effectively and negotiate terms that benefit all parties involved. Regional cooperation could also involve the establishment of knowledge-sharing platforms, joint research initiatives, and capacity-building programs, allowing countries in the Eastern Mediterranean to enhance their collective ability to address climate challenges and develop innovative solutions tailored to the region's specific needs.

Additionally, the Eastern Mediterranean could work together to leverage international support for regional climate action, including financial assistance, technology transfer, and capacity-building initiatives. By presenting a united front and demonstrating a commitment to regional cooperation, the region may be better positioned to attract support from infrastructure development initiatives as well

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as multilateral institutions. Ultimately, implementing this collaborative approach will require political will, diplomacy, and a willingness to compromise. Countries in the Eastern Mediterranean must recognise that the long-term benefits of regional cooperation on climate action outweigh the short-term costs of setting aside political differences.

The Eastern Mediterranean region faces significant challenges in addressing the socioeconomic and security impacts of climate change, with its path to climate resilience complicated by political and geopolitical hurdles. However, there is reason for optimism in this ancient and diverse region. By resolving their differences, establishing effective mechanisms for collaboration, and skilfully navigating the complexities of the multipolar world order, the countries of the Eastern Mediterranean have the opportunity to write an inspiring new chapter in the region's history – one characterised by resilience, cooperation, and sustainable progress. The road ahead may be difficult, but with a shared vision, a commitment to working together, and the support of the international community, the region can overcome the obstacles it faces and build a more prosperous and sustainable future for all its inhabitants.



## About the author

Karim is a sustainability and climate expert based in London. He is an Associate Director at Buro Happold, an Associate Fellow at Chatham House (The Royal Institute of International Affairs), and a Non-Resident Scholar at the Middle East Institute in Washington. Karim is also the Founder and Coordinator of Carboun, an advocacy initiative promoting sustainability in cities of the Middle East and North Africa, through research and communication.

Karim's interests include urban sustainability and resilience, climate policy, and energy transition. His current work focuses on the Middle East and North Africa region, especially around the Eastern Mediterranean and the Gulf, but his two decades of experience also span Europe, North America, and sub-Saharan Africa.

Karim has written tens of articles and publications. He has been invited to over one hundred public speaking engagements and has delivered guest lectures at some of the world's leading universities. He is regularly interviewed and quoted by TV, print and digital media, and has appeared in most mainstream media outlets including The New York Times, The Washington Post, Financial Times, BBC, Reuters, Associated Press, Bloomberg, CNN, NBC, ABC News, PBS, NPR, Le Monde, USA Today, Los Angeles Times, Chicago Tribune, Christian Science Monitor, Independent, France 24, ARD, Forbes, Al Jazeera, Al Arabiya, Sky News Arabia, TRT, Asharq, and RT.

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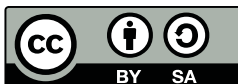
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