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CLIMATE JUSTICE IN THE EASTERN MEDITERRANEAN ARAB STATES: THE CASES OF EGYPT AND JORDAN

İrem AŞKAR KARAKIR*
Dokuz Eylul University, Izmir, Turkiye

*CORRESPONDENCE

İrem AŞKAR KARAKIR
✉ irem.askar@deu.edu.tr

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Abstract

At the opening of the 27th Conference of the Parties (COP) Climate Summit in Sharm El-Sheikh, Egypt, United Nations (UN) Secretary General Antonio Guterres (07.11.2022) stated: "we are on a highway to climate hell with our foot on the accelerator." It would not be wrong to suggest that the distance on this highway is closing faster in the Eastern Mediterranean Arab States (EMAS) including Egypt, Jordan, Lebanon and Syria. These states have been greatly exposed to the negative impacts of climate change such as very high summer temperatures, declining precipitation, floods, droughts and decreasing water supplies. Yet, neither they are the major contributors to the climate crisis nor they have sufficient resources to cope with its consequences by themselves. Noticeable asymmetries have had their mark on the current international order regarding climate change. Globally, they are the industrialized nations of the global North to have contributed to climate change greater extent with their cumulative carbon emissions and the hydrocarbon rich Arab Gulf states continue to exploit fossil fuel revenues in the neighborhood. When compared with the developed states of the global North and the Arab Gulf states, EMAS suffer more from the climatic shocks and are less prepared to respond. Even within these states, consequences of climate change are unevenly felt. Referring to the concept of 'climate justice' with a special focus on the ordinary citizens of EMAS, this paper seeks to question to what extent climate action related responsibilities have been undertaken by national governments and the international community.

Keywords: Climate change, climate justice, Eastern Mediterranean Arab States (EMAS), Egypt, Jordan

Introduction

At the opening of the 27th Conference of the Parties (COP) Climate Summit in Sharm El-Sheikh, Egypt, United Nations (UN) Secretary General Antonio Guterres (07.11.2022) stated: "we are on a highway to climate hell with our foot on the accelerator." It would not be wrong to suggest that the distance on this highway is closing faster in the Eastern Mediterranean Arab States (EMAS) including Egypt, Jordan, Lebanon and Syria. These states have been greatly exposed to the negative impacts of climate change such as very high summer temperatures, declining precipitation, floods, droughts and decreasing water supplies. Yet, neither they are the major contributors to the climate crisis, nor they have sufficient resources to cope with its consequences by themselves. Noticeable asymmetries have had their mark on the current international order regarding climate change. Globally, they are the industrialized nations of the global North to have contributed to climate change greater extent with their cumulative carbon emissions and the hydrocarbon rich Arab Gulf states continue to exploit fossil fuel revenues in the neighborhood. When compared with the developed states of the global North and the Arab Gulf states, EMAS suffer more from the climatic shocks and are less prepared to respond. Even within these states, consequences of climate change are unevenly felt. Referring to the concept of 'climate justice' with a special focus on the ordinary citizens of EMAS, this

paper seeks to question to what extent climate action related responsibilities have been undertaken by national governments and the international community.

In all these states, combatting climate change has been far from being a priority. The ongoing war in Syria has contributed and accelerated the negative impacts of climate change. In Lebanon, forest fires have become a common phenomenon attracting less attention than the political deadlocks in the country. Jordan has been under serious threat of unprecedented levels of water scarcity. When it comes to Egypt, despite some ambitious projects such as developing wind energy and greening tourist destinations, the country's climate profile has remained poor. On the national front; EMAS governments have adopted several initiatives to cope with climate change in recent years. But these top-down initiatives are mainly elite-led projects to benefit ruling elites from green finance and they do not take into consideration the needs of their citizens. On the global front; while some members of the international community have adopted emission commitments within their own borders or regions, they have taken hesitant steps to address the problem in other regions of the world. This paper argues that progress in addressing climate change can only be achieved through unified efforts by policy makers at national, regional and global levels to develop coherent and consistent strategies. Encouraging greater equality in terms of curbing climate vulnerability of those people living in disadvantaged regions such as the EMAS is one of the leading challenges for the international community in the 21st century.

This study consists of four sections. In the first section, the focus is on the unfolding of climate change within the context of the EMAS. The second section elaborates on the concept of climate justice; its emergence, evolution and main claims. The third section addresses climate governance by two states among the EMAS: Egypt and Jordan. Lastly, the fourth section points out climate action related responsibilities by the international community regarding the EMAS.

Climate Change in the EMAS

The Intergovernmental Panel on Climate Change (IPCC) (2023) points out that human-induced climate change has caused extensive destructive impacts on nature and people across the globe, that are unevenly spread across regions and communities. The disproportionate negative effects of climate crisis are mostly felt by those vulnerable communities who have historically had the least contribution to climate change when cumulative greenhouse gas (GHG) emissions are taken into account. According to the United Nations Environment Program (UNEP) (2023), "the Mediterranean region is warming 20% faster than the global average". The region takes place "in a transition zone between the arid climate of North Africa and the temperate and rainy climate of central Europe" and is closely influenced by "interactions between mid-latitude and tropical processes" (Giorgi and Pierro, 2008, p.90). As a result, even slight changes in the general circulations considerably alter the Mediterranean climate, making the region potentially exposed to climatic changes (Giorgi and Pierro, 2008, p.90). The situation becomes more critical when we move to the eastern Mediterranean as the region has been subject to increasing harmful consequences of climate change including heat waves, aridity conditions, forest fires, declining rainfall and air pollution. These negative effects are aggravated when combined with existing political, economic and social shortcomings, and weak capacity of the governments to respond in terms of mitigation, adaptation and resilience to climate change. This is particularly the case in the Eastern Mediterranean Arab States (EMAS) including Egypt, Jordan, Lebanon and Syria. Vulnerable groups in the EMAS such as "people suffering from the sickness, the elderly, children, and in general the urban population" are estimated to feel the worst outcomes of this process (Lelieveld et al., 2012, p.682).

EMAS are increasingly exposed to very high summer temperatures, declining precipitation, droughts and floods under climate change, which in return leads to declining agricultural production, migration flows from rural to urban areas, health problems (Paz, Majeed and Christophides, 2021) and accelerating pressure on resources. To make matters worse, high-fertility rates in these states place further burden on water and food supplies. Vulnerability to climate-related risks of the EMAS populations is not only higher when compared with many other regions, but also it is remarkably greater than that of the hydrocarbon rich Arab Gulf monarchies. Yet, even though the Arab Gulf monarchies have severe water scarcity, they "consume more water per capita than the global average" (Waha, Krummenauer and Adams et al., 2017, p.1624). Through the hydrocarbons they extract and sell, these monarchies have highly contributed to global carbon emissions. Nevertheless, fossil fuel rents have enabled them to purchase adaptive capacity against climate change in terms of food imports and seawater desalination (Mason, 2019, pp.627-628). In a stark asymmetry, while having contributed very slightly to climate change through their historical cumulative carbon emissions, the EMAS have had greater share from the negative consequences of climate change and their adaptive capacities against climate change have remained very limited. This situation presents uneven and unfair conditions to EMAS citizens in comparison to those of global north or Arab Gulf. Even within the EMAS, visible inequalities exist in terms of responsive capacities of different socio-economic groups. Vulnerable segments of society (poor, women, children, elderly, refugees…) continue to suffer from the worst consequences of climate change.

Climate Justice: Placing Ethics at the Heart of Climate Action

The term 'climate justice' gained prominence by the early 2000s, emerging out of a broader term, 'environmental justice'. Coinciding with the sixth session of the United Nations Framework Convention on Climate Change (UNFCCC) conference at the Hague (COP 6) in 2000, the first climate justice summit was organized by the Rising Tide[1] network as an alternative to official talks attracting attention to the 'real victims' of the climate change, the people in the developing world (Whitehead, 2014). At the official level, the term 'climate justice' was for the first time indicated in the Paris

1. Rising Tide is a grassroots international network of groups and individuals who take direct action to confront the root causes of climate change and to promote local, community-based solutions to the climate crisis. For more details, view https://risingtide.org.uk/

Agreement (2015). It stated: "Noting the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of 'climate justice', when taking action to address climate change" (Paris Agreement, 2015).

Climate justice advocates were initially inspired by the mass resistance taking place in the global south against fuel companies to prevent climate change such as the Ogoni people's battle against Shell in Nigeria (Paris Agreement, 2015). They have viewed the outcomes of climate change as an illustration of inequality in the contemporary world. In this context, it is suggested that while industrialized countries are considered as largely responsible for climate change, developing countries face its negative consequences. Despite not being responsible from most historical emissions, developing countries have to cope with its disproportionate consequences with their limited capacity and resources. According to 2018 report by the World Bank, whereas the US and Europe contributed 26% and 22% of global cumulative GHG respectively, the African continent just contributed 3.8% (World Bank, 2018). As it is mentioned in the IPCC 2023 (p.8) report, adaptation to climate options and their implementation remain limited in the developing countries and current global financial flows are insufficient to eliminate these limitations. The destructive impacts of climate change on low-income countries are multidimensional and besides triggering natural disasters, they prevent quality education, intensify existing gender inequalities, provoke conflict, destabilize governments, and force people to leave their homelands (Walsch 2019, p.40).

The disproportionate outcomes of climate change are not only observed among developed and developing parts of the world. Asymmetries are also seen among people within the same country or even within the same city. Despite having contributed least to increasing temperatures, less privileged people in their societies due to a number of factors are likely to suffer greater from the outcomes when compared with more privileged people whether in developed or developing states who have contributed greater to the problems. Similar uneven outcomes can also be viewed for older and younger generations. While older generations have contributed greater extent to global warming, younger generations are likely to be worse affected from climate change. United Nations Development Program (UNDP) classifies three main aspects of climate justice as structural inequalities (race, ethnicity, gender, disability…), socioeconomic inequalities and intergenerational inequity. Accordingly, it maintains that climate justice is about determining climate-related responsibilities in accordance with the amount of contribution to the problem while addressing the three categories of inequalities (UNDP, 2023). Against these disproportions, climate justice seeks to place ethics at the heart of climate action. Admitting the fact that action is to be taken by every region, every country, every community and every individual, climate justice aims to distribute climate-related responsibilities in a fairer way prioritizing human rights and equality. In this regard, climate justice pursues solutions that would overcome embedded injustices in global, national and societal levels. While no one is immune to global warming, the level of risk depends "on trends in vulnerability" (IPCC 2023, p.15). As Boyd et al. (2021, p.1367) rightfully suggest "the scale and magnitude of the impacts of an extreme event are a product of socio-political processes that create vulnerability" and there is need for addressing these vulnerabilities in order for the first step towards transformation is to be taken.

The concept of climate justice has become popular with the campaigns and demonstrations of grassroots movements in the 2010s in different parts of the world. Friends of the Earth International (FoEI) helped hundreds of thousands of people to mobilize around the world, calling for climate justice on the eve of the UN COP 21 climate change summit in 2015 (FoEI, 2015). Mary Robinson Foundation for Climate Justice has promoted various campaigns on climate justice to raise awareness about the vulnerable people subjected to negative outcomes of climate change. The International Institute of Climate Action and Theory (IICAT) has also encouraged the international struggle for climate justice through its emphasis on the disproportional negative impact of global warming. Climate justice movement proved its transnational strength in 2019 with its reinforced mobilization capacity through Extinction Rebellion (XR) and Fridays for the Future and their actions across the globe (Almeida, 2019, p.975). Equality, fairness, participation, access to resources and information, and protection are the leading themes to be employed in the definitions of climate justice by these grassroots movements (Shaw, 2016, p.508).

Climate Governance by the Egyptian and the Jordanian Governments

Historically, the EMAS have been referred as "low-ambition, low-emission" countries regarding climate governance with their governments and ruling elites frequently downplaying the outcomes of climate change (Chibani, 2022). While there are some distinctions among the policies adopted by the governments of EMAS, in recent years, there have been greater interest among the governments in the region with respect to adopting policies to cope with climate crisis including GHG emission reduction assurances, renewable energy investments and carbon taxes. According to IPCC (2023, p.32), effective climate action requires "political commitment, well-aligned multilevel governance, institutional frameworks, laws, policies and strategies and enhanced access to finance and technology". Among them, inclusive decision-making processes prioritizing equity and justice occupy a central place in reducing vulnerabilities and climate risks. Policymakers should pay attention to contextual inequities based on gender, ethnicity, disability, age, location and income (IPCC, 2023, p.32). Climate governance is mainly based on two pillars: mitigation and adaptation. Mitigation includes measures to limit or slow down climate change, whereas adaptation is about making necessary adjustments to cope with negative consequences of climate change or at least to reduce its harmful effects.

Egypt continues to be one of the most vulnerable countries to climate crisis due to several reasons such as visible reduction in average flow of the Nile River which constitutes Egypt's leading water supply, the threat of inundation of fertile lands in the Nile Delta from sea level rise, decreasing crop yields due to increasing temperatures and decreasing irrigation capacity (Smith, 2014, p.59). Egypt ratified the UNFCCC in 1994, submitted its Nationally Determined Contribution (NDC) in accordance with the Paris Agreement in November 2015 and ratified Paris Agreement on 29th June 2017 (Egypt's Second Updated Nationally Determined

Contributions, 2023). Investing in renewable energy has been Egyptian government's most ambitions mitigation strategy against climate change. Egyptian Ministry of Electricity and Renewable Energy released Integrated Sustainable Energy Strategy to 2035 in 2015, which paid special attention to renewable energy aiming renewable energy capacity to constitute 42% of power capacity by 2035 (IRENA, 2018). Egypt has heavily invested in wind energy projects to curb GHG emissions such as "the Zafarana wind farm with 700 wind turbines and a total capacity of 545 MW, Gabal El Zeit wind farm with a total capacity of 580 MW" (Gebaly, Nashwan, Khadr and Shahid, 2023, p.3). Other than wind energy, Egypt has developed its hydro, solar and biomass energy sources which led to "the installation of solar water heaters (SWHs) in new cities, solar industrial process heat systems (SIPHS), wind farms and photovoltaic (PV) applications in water pumping, cold stores and desalination plants, as well as biogas digesters in rural areas" (IRENA, 2018, p.21).

Egypt has also introduced two ambitious projects: the regreening of the Sinai Peninsula and the development of the Suez Canal Economic Zone. The regreening of the Sinai Peninsula project aims to restore vegetation to the Sinai Peninsula reducing moisture loss between the Mediterranean Sea and the Indian Ocean thus encouraging rainfall (Chibani, 2022). On the other hand, the Egyptian government seeks to turn Suez Canal Economic Zone into "a global hub for the production of green hydrogen and ammonia" (Chibani, 2022). Furthermore, Egypt hosted COP27, the 2022 UN Climate Change Conference, designating Sharm ek-Sheikh as the venue. Prior to the event Egyptian officials signed the Sharm Green City Project Agreement to turn Sharm el-Sheikh into an environmentally sustainable tourist destination by eliminating single-use plastics, installing solar-powered lighting systems, planting thousands of mangrove trees, and moving "smokestacks that currently lie within the city limits to the desert area instead" (Asi, 2022). During the COP27, Egyptian President Abdel Fattah El-Sisi emphasized that Egypt was hosting the event "on behalf of African nations" (Asi, 2022).

Despite the large-scale projects and significant investment in renewable energy, Egypt's climate governance record remains poor. According to Climate Action Tracker, Egypt's climate targets and policies are "highly insufficient," since "Egypt's climate policies and commitments are not consistent with the Paris Agreement's objectives and lead to rising, rather than falling, emissions" (Climate Action Tracker: Egypt, 2023). Egypt is Africa's second largest natural gas producer and expansion of natural gas production and exports has overshadowed investments in renewable energy to large extent (Climate Action Tracker: Egypt, 2023). Projects introduced by ruling elites in terms of climate action in the country have so far not changed anything for ordinary Egyptians. Climate action is led in a top-down manner without cooperation with civil society. Egyptian authorities prioritize green finance, climate finance from developed countries (Climate Action Tracker: Egypt, 2023). As Chibani (2022) suggests; climate change mitigation projects in Egypt display monopolization of climate change finance by political and military elites who are not much concerned about potential effects of them on the people.

When it comes to Jordan, Jordan is a relatively small and stable nation when compared with its neighboring states. However, the country has been coping with severe economic challenges whose negative impact on the Jordanians has heightened with climate change (El-Sharif and Muasher, 2024). Jordan ratified UNFCCC in 1993 and Jordanian governments have been issuing National Communications within the framework of the UNFCCC since 1998 which provide detailed information about the country's GHG emissions, climate change effects, and present climate actions. (El-Sharif and Muasher, 2024). Creation of a Climate Change Directorate is one of the initiatives to address climate change in the country. The Climate Change Directorate was introduced in 2014 within the Ministry of Environment "to oversee Jordan's climate change strategies as well as to represent the country at the international level" but it has so far remained understaffed and underfinanced (El-Anis and Poberezhskaya, 2023, p.8).

Jordan presented its first NDC in 2015 and enacted Climate Change By-Law (No. 79) in 2019 to present a national legal framework for climate-related actions (Updated Submission of Jordan's 1st Nationally Determined Contribution, 2021). The By-Law confirmed the status of Ministry of Environment as the leading authority in climate change policies with National Climate Change Committee responsible for coordination, and formalized climate change debates in the country (El-Anis and Poberezhskaya, 2023, p.8). Initiatives for adaptation and resilience include Climate–Smart Agriculture Action Plan, Amman Resilience Strategy, Amman Climate Plan (a Vision for 2050) and Amman Green City Action Plan (Updated Submission of Jordan's 1st Nationally Determined Contribution, 2021). Climate–Smart Agriculture Action Plan seeks to contribute to Jordanian farmers' adaptation and resilience to climate change at the national level, whereas the other three local plans put forward by the Greater Amman Municipality aim at reducing GHG emissions and to enhance resilience of Amman, the capital of Jordan (Updated Submission of Jordan's 1st Nationally Determined Contribution, 2021).

In addition, Jordanian Ministry of Environment (Dec.2022) launched Climate Investment Mobilization Plan to encourage climate responsive projects to involving the private sector and to promote Jordan as an attractive destination for climate investments. Within the context of this Plan, Jordan has been able to attract attention of climate investors for the Aqaba-Amman Water Desalination and Conveyance Project, whose success according to El-Sharif and Muasher (2024) will depend on financial achievement through public-private partnership. Overall, Jordan has introduced promising climate action policies and initiatives, but the real challenge is implementation in a proper and coherent way and the accomplishments have yet to be seen (El-Anis and Poberezhskaya, 2023, p.3).

Climate Action Related Responsibilities by the International Community

With respect to global climate action, the international community has two leading responsibilities: encouraging countries to make commitments in reducing their own GHG emissions in a fair way and ensuring the provision of financial and technical assistance to developing countries for climate change mitigation and adaptation. The international community is expected to support green transformation in developing parts of the world though sharing technology and resources and monitoring them in the protection of vulnerable groups (Al-Mailam, Arkeh and

Hamzawy, 2023, p.19). The Paris Agreement recognizes the principle of 'common but differentiated responsibilities,' meaning that while all countries are responsible from climate action, this would take longer time and may depend on financial and technical assistance in the case of developing countries (Paris Agreement, 2015).

COP, also known as UN's annual climate change summit, has been held since 1995 and is widely accepted as the planning platform for the international community in combatting climate change. However, COP has also been subject to widespread criticisms as the agreements made by countries to reduce their emissions are not binding and there are no concrete penalties for not meeting the targets (Asi, 2022). The latest COP, the 28th held in Dubai, United Arab Emirates, from November 30 to December 13, 2023 saw the launch of 'loss and damage' fund aimed at supporting developing countries in combatting the effects of climate change. In this regard, while COP28 presented an important mechanism that would encourage reparations by the developed world responsible from historical cumulative emissions, to developing world facing the destructive consequences of climate crisis, it lacks significant details to be called as a comprehensive plan (Kanbergs, 2023). Other than the 'loss and damage' fund, the COP 28 had two accomplishments; an agreement by participant countries to transition away from fossil fuels and the publication of an assessment and monitoring of the global progress in mitigating climate change, referred to as the Global Stocktake (Nasser, 2023). The 2023 Global Stocktake points out that current climate action is insufficient for limiting global warming to 1.5°C and underlines urgent need for "tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030," while "accelerating efforts towards the phase-down of unabated coal power" (UNFCCC, 2023).

In order for international community to increase its impact on climate action and to support vulnerable communities, it should do more than just setting pledges. A potentially effective step can be through the establishment of a reward and punishment mechanism in which countries exceeding emission quotas are penalized and those payments could be used to fund climate finance (Nasser 2023). But, here again there is the challenge of enforcement of such a mechanism. Another contribution to vulnerable countries and vulnerable societies in support for climate action would be through the development of climate debt swap deal. Most of the developing states face debt burdens to international financial institutions such as the World Bank and the International Monetary Fund (IMF) and this situation makes it more difficult for them to adopt mitigation and adaptation initiatives (Schulz and Idriss, 2023). Debt swaps for climate are not new, but they can be restructured to offer solution to debt distress of the vulnerable states and a way of directing additional resources to climate (UNDP, 2023). Alternatively, climate-conditional grants or grant/loan combinations can be more effective in supporting climate investment in recipient countries since they are targeted solely for climate investment and they cannot be redirected to debt service or other spending purposes (Chamon, Klok, Thakoor and Zettelmeyer, 2022).

Conclusion

This study analyzed climate action taken by Egypt and Jordan among the EMAS and the international community within the context of 'climate justice' debate. 'Climate justice' seeks to attract attention to disproportionate impacts of climate change on the vulnerable communities and the responsibility of the governments and the international community to take necessary climate action for securing these communities. Located in the eastern Mediterranean, the most rapidly warming region in the world, Egypt and Jordan have been highly subject to negative consequences of climate change. The climate-induced harmful consequences have particularly been felt by the ordinary Egyptians and Jordanians, when these consequences are combined with the existing political, economic and social shortcomings in their countries.

In the last two decades, both national governments and the international community have taken steps to contribute to mitigation, adaptation and resilience to climate change. Yet, the momentum and properness regarding the implementation of relevant climate action policies and initiatives have lagged behind the speed of harmful effects of climate change on vulnerable communities. The national governments and the international community need to undertake greater climate action to reduce the vulnerability of communities such as those in Egypt and Jordan.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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