Climate Migration in the Eye of the Storm: A Future Challenge for the Mediterranean Region

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Climate Change: A Threat Multiplier in the 21st Century

Today, the Mediterranean region is one of the world’s main climate change hotspots, and, according to numerous scientific studies and reports by international organizations, its accelerated effects are expected to worsen in the coming decades. The media are forever informing us about the natural catastrophes, such as hurricanes, droughts, floods and sudden-onset disasters, that occur frequently on both sides of the Mediterranean, and which feature on the front pages of our newspapers and in our television news programmes. This is a topic of growing concern within civil society and the international community, and especially within the borders of the Mare Nostrum. According to the First Mediterranean Assessment Report (MAR1) on Climate and Environmental Change prepared by the independent network of Mediterranean Experts on Climate and environmental Change (MedECC), the region is warming 20% faster than the global average, sea-level rise may increase by between 20 and 110 cm by the end of the century, while annual precipitation rates will decrease considerably (MedECC, 2021). Moreover, the report stresses the need for urgent and drastic action if we are to limit global warming to 1.5°C and describes climate change as one of the greatest threats of the 21st century. The accelerated effects of climate change have posed significant environmental challenges with truly devastating consequences in the short and medium term for marine and terrestrial ecosystems, but also to human well-being on both shores of the Mediterranean. In this context, climate change represents a modern and unparalleled threat to the Mediterranean region as it acts as a double-edged sword. Beyond presenting direct risks to human security in the form of drastic climate and environmental variations, climate change also has the capacity to interact with other political, social and economic factors and exacerbate instability, conflict and fragility, as well as the pressing issue of human mobility. Looking back, the UN Secretary-General (SG) Ban Ki-moon recognized climate change as a “threat multiplier” in the SG’s Report to the 64th Session of the General Assembly, titled “Climate Change and its Possible Security Implications” (UN General Assembly, 2009). This concept is now widely recognized among the international community, scientists, governments and civil society, and brings to the table the intrinsic link between environmental and climate effects and the realization of a wide range of human rights, including but not limited to the right to life, health, food, water and housing, among others. The key factor that makes climate change one of the greatest threats of the 21st century is that it negatively affects interlinked sectors (agriculture, industry, water, tourism, sanitation, health, energy, environment and biodiversity). This essentially means that climate change has the potential to exacerbate other drivers of insecurity such as water, food, energy or health insecurity, and ultimately lead to political tensions, development risks and migration challenges. Moreover, its negative effects are today hampering progress towards the effective delivery of the Sustainable Development Goals (SDGs) and could even result in slowing down or reversing the development process in the Mediterranean region.
The Climate Crisis Is Also a Migratory Crisis

The UN Intergovernmental Panel on Climate Change’s 2022 report has confirmed that “climate change and weather extremes are increasingly driving displacement in all regions around the world” (IPCC, 2022), including within the southern Mediterranean region. It is undeniable that some regions will be more severely affected by climate change than others due to geographic factors, population growth, states' operational and institutional capacity and other socioeconomic factors (IOM, 2019). For instance, in North Africa and the Sahel, extreme and unpredictable weather variations have already led to natural disasters with negative impacts on crop yields, fisheries and socioeconomic development at different levels. According to the 2019 Afrobarometer Policy Series on climate change, which represents the largest ever public opinion survey of Africans’ perceptions on different issues, respondents from 34 African countries stated that climate conditions for agricultural production have worsened over the past decade, which has had a severe impact on their livelihoods and put their household food security at serious risk. The region’s vast deserts and dry lands are prone to dust storms, extremely high temperatures and droughts, which will certainly be exacerbated by climate change and negatively affect related agricultural and pastoral sectors, as well as air quality (World Bank, 2019). Water security is becoming a major challenge for North African countries, as rainfall and groundwater supplies decrease, and droughts intensify; while climate change heavily impacts soil degradation, desertification and deforestation, and exposes coastal populations to sea-level rise (World Bank, 2018). Moreover, within the southern Mediterranean region temperatures are expected to rise to 7°C in summertime and 4°C in the winter. These variations will be accompanied by longer heat waves and decreases in average precipitation during the wet season, particularly in Morocco and Algeria (Schilling et al. 2020).

In this regard, the United Nations High Commissioner for Refugees, Filippo Grandi, recently called for action to tackle climate change, one of the greatest factors contributing to the world’s worsening forced migration crisis because of its negative impact on people’s livelihoods and productivity in highly exposed locations. According to the World Bank’s Groundswell Report, in the most pessimistic scenario, climate change is expected to displace up to 216 million people across the globe by 2050, of which 13 million will be forced to leave their homes in North Africa because of severe weather conditions and associated food, water, health and human insecurity (Clement et al., 2021). In the report’s worst-case estimates, climate-driven migration could escalate to up to 6% of the total population of the North African region, and nearly half of all internal migrants could be considered climate migrants.

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By 2050, within the southern Mediterranean region, climate out-migration hotspots, which have become as such due to serious water shortages and the impact of sea-level rise, will include coastal areas in Tunisia, Morocco – including Agadir, and the central Atlas surroundings –, Algeria and Egypt – especially across the Nile Delta and Valley. Climate-related migrants will be forcibly displaced towards urban areas such as Algiers, Tunis, Cairo, Tripoli, Casablanca, Rabat or Tangiers, which may lead to a disproportionate population growth (Clement et al., 2021), and serious pressures on cities’ resources and planning. Furthermore, the neighbouring sub-Saharan and Sahel regions have also been portrayed as real hotspots of climate-induced migration due to severe desertification and droughts in arable and farming areas and the regions’ high dependence on agriculture and pastoral movements (Rigaud et al., 2018). Most notably, the World Bank’s 2018 Groundswell Report predicted negative scenarios in which as many as 86 million people could be forced to move within national borders by 2050. Given the region’s proximity to North Africa, which often becomes a transit point to Europe, climate change adversities combined with increased demographic pressures on the sub-Saharan population, security outbreaks and political and socioeco-
Economic instability could lead to increased cross-border migration to southern Mediterranean countries in the upcoming decades (IOM, 2019). This could intrinsically generate associated problems in hotspots of inward migration such as Morocco, Tunisia or Algeria, particularly increasing the risk of resource scarcity.

**The Climate-Migration Nexus: Migration Outcomes in the Southern Mediterranean Region**

In this context of future projections, vulnerable human groups will be forced to flee from home seeking a better future that provides them with the basic elements of subsistence and human progress away from the negative effects of climate change. Climate-driven migration from areas with associated pressures on agriculture and water, and from towns affected by sea-level rise, heavy storms and floods, will continue to spread and intensify in the coming years, particularly increasing internal mobility in combination with other instability drivers. Indeed, most studies and foresight exercises on the topic predict that out of every four displacements induced by the negative effects of climate change and the exacerbation of instability drivers, three will take place within countries (Clement et al., 2021). Thus, climate change could be framed as a direct and powerful driver of internal migration, as it rarely takes place directly across borders and transnationally, mainly due to the lack of economic resources and because few people have the means to migrate for a longer period of time.

Today, the southern Mediterranean region is suffering from a variety of internal mobility outcomes induced by climate-related events, including the disruption of regular mobility patterns, as is the case of pastoralist movements, migration as an adaptation strategy and emergency displacement, the latter two being either permanent or temporary. The linkage between a sudden-onset natural disaster and forced displacement is clear, as extreme weather agents such as hurricanes or torrential storms quickly force large numbers of people to flee from the negative consequences of the catastrophe. This type of disaster-related migration is more easily observable, and often involves significant human and fund resource mobilization for appropriate emergency preparedness, disaster response and recovery.

Human mobility as a form of adaptation to the gradual and constant exposure to slow-onset climate variations and their negative consequences, for instance in the form of reductions in crop productivity due to long droughts or rising temperatures, is one of the most common forms of internal climate-induced migration. This occurs when vulnerable groups adapt in one way or another and over a number of years, to an array of slow, climate-related environmental stressors, and, ultimately, are forced to migrate once they have exhausted all feasible alternatives that made livelihood and habitability possible. This type of internal migration is often short-distance and occurs from rural areas to urban centres. How this type of climate-driven displacement interacts with an individual’s capacity to make the decision to migrate presents more difficulties on the ground. This is because if vulnerable human groups have exhausted all possible ways to adapt to adverse climate events, and finally are being forced to flee from their homes as an ultimate adaptation resource, the voluntariness of their actions is called into question and should not be quantified as voluntary migration in official statistics (Mixed Migration Centre, 2020).

Likewise, it has been widely demonstrated by studies and analysis in which perceptions of worsening climate change effects are associated with a higher probability of migration that the interaction with other drivers of mobility stands out as highly necessary to ultimately induce human mobility. For instance, a study based on household surveys in North Africa demonstrated that up to 70% of respondents in Morocco and Algeria and 40% in Egypt stressed that, in recent times, temperatures have been higher and precipitation scarcer, and that these drastic weather conditions were indeed affecting crop productivity. However, when asked if these climate-related consequences were enough to make them migrate, the same respondents answered negatively and highlighted that other socioeconomic factors such as a lack of jobs or available services in their towns should be taken into account to force them to take this last-resort decision (Wodon et al. 2014). This same example was clearly demonstrated by the Mixed Migration Centre with a study carried out in West Africa in which just 2% of interviewed migrants claimed to have migrated solely for causes related to climate change. However, when asked whether cli-
climate change had affected their decision to a greater or lesser extent, nearly 47% of the same respondents affirmed that climate change had been a factor triggering their decision, but was not their exclusive consideration (Mixed Migration Centre, 2021). However, despite the fact that climate-related displacement may often first translate into internal migration, climate-driven human mobility might be followed in the long run by cross-border migration in combination with other socioeconomic and insecurity drivers of mobility or the progressive gain of financial resources, for instance after some years of work in urban areas.

Moreover, conflicts across the Middle East and North Africa region and severe political instability and economic crisis periods will continue to be powerful drivers of sudden cross-border refugee flows. Similarly, and as demonstrated by the academic literature, adverse climate-related events can have a strong linkage with fragility and may increase the risk of conflict by interacting with other factors, such as limited state capacity and structural constraints (Mach et al., 2019). In addition, according to the IOM report titled “Climate change and migration in vulnerable countries,” it has been demonstrated that countries with a lower degree of socioeconomic development and weak governance structures will be most affected by the effects of climate change and will account for the majority of climate-driven emigrants. This is because their meagre financial resources to address emerging challenges and lack of institutional capacity will not be enough to cope with the challenge of the climate-migration nexus in the future (IOM, 2019).

**Better Informing Future Migration and Development Policies**

The annual World Economic Forum (WEF) Global Risks Report contains a multi-stakeholder survey that measures perceptions of global risks among the international community and global leaders in different domains. In its last edition, climate change was ranked among the “top five” perceived global risks, while other related risks such as food and water security, and migratory movements—which have a strong connection with climate change impacts—were also among the top ten chosen categories this year (World Economic Forum, 2022). Migration is a top long-term concern for the survey’s respondents, and 60% of interviewees in the 2022 Report agreed the issue of migration is not adequately addressed by the international community and governments, despite its strategic importance and the world’s growing concern about it, especially in the wake of the intensifying effects of climate change.

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As previously outlined, framing climate change as just a primary and direct driver of climate-induced human mobility may obscure the complex reality of forced climate displacement and lead to the inadequate implementation of migration strategies, development policies and disaster responses. Climate change is a unique phenomenon not just because of the climate-related environmental stressors that it causes directly, but also because of its cross-cutting capacity to exacerbate interconnected risks within sectors that are intrinsically necessary for livelihood, socioeconomic progress and human development. In this context, if policymakers and civil society continue to address the issue of climate change simply from a unilateral perspective, based on its most direct and short-term environmental consequences, this situation will simply lead to underestimating the risks and scope of the challenge and ultimately to failing to develop appropriate policies. Disaggregating its adverse effects from other climate-driven risks such as water security, food security or human mobility is not a wise option if national leaders want to curb the adverse effects of climate change by 2030 and foster sustainable development at all levels in the Mediterranean region. As a matter of fact, the
need to incorporate a more cross-cutting approach that helps frame the threat multiplier nature of climate change remains crucial to better understand its socioeconomic, health, development, migration and security risks, which have devastating consequences for future generations and Mediterranean societies (Werrell & Femia, 2015).

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Moreover, this paradigm shift will enable decision-makers to implement policies in a more holistic manner and plan ahead, to interconnect different ministries and agencies to develop joint actions to properly address the climate-migration nexus, and to adapt international law to the new cross-cutting features of climate change, for example regarding climate refugees.

Along these lines, for instance, some examples and policy recommendations that take into account the climate-migration nexus from a holistic and inclusive point of view could include investing in better understanding the drivers of internal and cross-border climate-induced migration to inform future-ready policies, as well as embedding the climate-migration nexus in climate change adaptation and mitigation plans, disaster preparedness, disaster risk reduction and disaster response plans. By mobilizing funding and resources towards climate change adaptation and mitigation policies that consider forced migration as a climate-related consequence, governments would be able to take action in advance to help improve affected citizens’ living conditions and livelihood and to prevent them from being forcibly displaced in the future. In the same vein, planning ahead future-ready integration and migration policies based on scenario-based approaches would lead to internal climate migration as an adaptation strategy resulting in positive development outcomes (Clement et al., 2021). Lastly, climate migration drivers and consequences should also be considered in future development planning and European Union development cooperation frameworks with the Southern Neighbourhood, but also with the Sahelian countries, as the Sahel-North Africa-Europe axis is expected to become a direct witness of climate-induced migration flows in the coming decades.

Conclusion

The fact that climate change is not the main direct driver of cross-border and intra-regional migration today, does not imply that climate-related environmental stressors will not continue to increase over the next few years. By that time, the scenario could be dramatically different to what it is today, given the wide-scale and devastating effects of climate change in the southern Mediterranean region and Sahel. Thus, human mobility patterns and trends could see a dramatic increase at the cross-border level, as climate change significantly affects human and socioeconomic development and leads to more pronounced conflicts and instability, exacerbating drivers of insecurity and human mobility.

For all these reasons, there is an urgent need to adopt small changes that help plan ahead for more sustainable solutions for a precarious future. At this crossroads, framing climate change as a threat multiplier remains crucial to better understand and analyse its negative consequences as a direct exacerbator of security, migration and socioeconomic development risks in the Mediterranean region. In addition, this holistic knowledge will help to better inform evidence-based and future-ready migration, integration and development policies, and to truly integrate the migration focus into climate change adaptation and mitigation policies. Lastly, the climate-migration nexus should also be put on the table of Euro-Mediterranean cooperation to join forces in the fight against climate change from a people-centred perspective, avoid and anticipate the devastating consequences of future climate-driven mobility in the region, and foster sustainable development at all levels.
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