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Andrew Geddes

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## **Governing migration from a distance: interactions between climate, migration, and security in the South Mediterranean**

Andrew Geddes\*

*Department of Politics, University of Sheffield, Sheffield, South Yorkshire S10 2TN, UK*

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Links between security and migration are well established and are associated with the meaning, status, and practice of borders in the international political system. This article assesses how and with what effects the effects of environmental and climate change have entered this relationship between migration and security. It does so by assessing the EU's external governance of migration in "South Mediterranean Partner Countries" (SMPCs): Algeria, Egypt, Iraq, Israel, Jordan, Libya, Morocco, Palestine, Syria, and Tunisia. It is argued that a focus on promoting "adaptation" and building "resilience" has developed that is consistent with the logic of governing migration from a distance. However, the article challenges ideas that environmental/climate change act as simple migration "triggers" and instead explores implications of movement towards and not away from risk, as well as the potential for populations to be trapped in areas that expose them to risk. It is shown that both have important implications for the relationship between migration, environmental/climate change, and security in SMPCs.

**Keywords:** migration; climate change; security; South Mediterranean

### **Introduction**

This article analyses the ways in which the construction of "new security challenges" in South Mediterranean countries contributes to the development of the external dimension of European Union (EU) migration governance and of broader strategies of "external migration governance" or "governing migration from a distance". In particular, the article focuses on the definition of environmental and climate change as new security challenges with potential implications for migration, for the EU's Global Approach to Migration and Mobility (GAMM, CEC 2011) and for the Strategic Guidelines on Migration and Asylum agreed by the member states in June 2014. As such, the article deals with classic transboundary issues – migration and environmental change – that render problematic the status and meaning of borders in international politics but that are also entangled with the meaning and practice of security in the international system. As will be shown, research evidence now challenges previous simplistic assumptions about environmental change as a potential "trigger" for mass migration. Instead, the evidence suggests that the challenges are more complicated than first thought but, as will be shown, they are also closely connected with the development of the external dimension of EU migration governance and have become linked to efforts to govern migration from a distance. The paper thus

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\*Email: [a.geddes@shef.ac.uk](mailto:a.geddes@shef.ac.uk)

draws from work on EU external governance that focuses on situations where “the institutional/legal boundary is moved beyond the circle of the member states” (Lavenex 2004, p. 683). Governance is understood to possess a dual meaning both as the conceptual representation of social systems and the empirical analysis of their capacity to adapt (Pierre 2000). This privileges no particular site or location for governance and is thus open both to the transboundary nature of both migration and environmental change as well as to the new venues and locations for migration governance that emerge as a result of transgovernmental cooperation in this field. Building on recent work both in the fields of environmental science and international relations, the article shows how this strategy of governing migration from a distance is becoming associated with ideas linked to human security including vulnerability, adaptation and resilience, their sources, and potential solutions. It does so by assessing the EU’s external governance of migration in the EU’s “South Mediterranean Partner Countries” (SMPCs): Algeria, Egypt, Iraq, Israel, Jordan, Libya, Morocco, Palestine, Syria, and Tunisia. The article focuses on both internal and international migration in SMPCs because internal migration is far more significant in scale than international migration and often takes the form of rural–urban migration that raises questions that tend not to be associated with migration policy, such as urban governance and the sustainability of rural livelihoods. In ecological terms, SMPCs comprise dry lands, coastal zones, and mountains. There is exposure to the effects of both rapid- and slow-onset environmental change that is likely to lead to an extension of arid land and increased desertification in SMPCs.

The questions addressed by this article are, first, how and in what ways did environmental change and migration governance become defined as security challenges? What was the perceived nature of the challenge and how has new research questioned the epistemic foundations of these initial perceptions. Following from this, the article then explores the ways in which scientific and research evidence about links between environmental change and migration have informed perceptions of the challenges associated with the EU’s external governance of migration but has done so with important implications for a broader set of policies linked to ideas about “vulnerability”, “adaptation”, and “resilience”, which, as operational concepts, can be linked to the expression of EU power in the international system and new ways of framing the security issue.

The argument is developed as follows. It is shown that environmental change can drive migration in SMPCs, but its effects are likely to be made evident through interaction with other economic, social, political, and demographic drivers of migration. This means that it is difficult to distinguish a group of people that fall into the category of “environmental migrants” or “climate refugees”. Moreover, interactions between environmental change and other migration drivers in SMPCs mean that migration may be towards rather than away from environmental risk. For example, there is large-scale rural to urban movement in many parts of the world, including SMPCs. This includes movement to large and growing cities in low-lying coastal areas in which migrants who are often residentially concentrated in poorer parts of these cities can be exposed to environmental hazard. In addition, rather than environmental change being a simple “trigger” mechanism for migration, some people in SMPCs will either choose not to move or will lack the resources to move. Indeed, environmental change may further erode resources at a household level that could facilitate migration. The article then assesses the implications of reframing links between migration and environmental change towards adaptation and resilience in the context of EU external migration governance.

### **Building resilience: environmental change and migration as a security challenge**

The linked concepts of adaptation, vulnerability, and resilience emerged in environmental science to explain the relationship between natural and social systems in the context of environmental change. This article argues that these concepts have analytical value when applied to other social systems, such as migration, but also that they can acquire particular meaning in the context of EU governance. For example, there may be a focus on the resilient individual in the context of neo-liberal governance able to enhance the competitiveness of the own state's economy (if they do not move) and the economy of EU member states (if they do) (Joseph 2014). Within the environmental science literature within which these ideas have been particularly influential, adaptation is taken to refer to decision-making processes, sets of actions, and associated capacities to deal with future changes to systems (Nelson *et al.* 2007, p. 397). The UN's Intergovernmental Panel on Climate Change (IPCC) defines adaptation as all actions to reduce vulnerability of a system, such as a city, population group, individual, or household to adverse effects of anthropogenic climate change. An outcome of successful adaptation is resilience. It has been argued that adaptation measures now, which may include proactive migration, can reduce the potential for forced movement in the future. Resilience can be understood as the amount of change a system can undergo while retaining the same controls on function and structure and maintaining options to develop (Nelson *et al.* 2007, p. 398). Vulnerability is the "degree to which a system is susceptible to and is unable to cope with adverse effects" (Adger 2006, p. 269). Maladaptation refers to the ways in which adaptation actions can also increase the vulnerability of other groups and sectors (Barnett and O'Neill 2010, p. 211).

There has been increased interest in the international relations literature in the idea of resilience, for example in relation to the idea of "governing from a distance". The notion of governing from a distance can be understood as a key strategic component of EU action on migration. A significant literature has emerged since the late 1990s that explores how and with what effects the EU has sought to develop policy interventions in the area of migration and border policy that have as their objective the intention of securing an effect in a non-member state. The easiest and most obvious way to do this was through the enlargement process where the "carrot" of eventual membership provided a powerful impetus to internal domestic change in applicant states. This has proven more difficult in countries without the prospect of membership and where, as Lavenex (2004, 2006) notes, the extension of the EU's role into the external domain does not bring with it the institutional and legal reach necessary to assure efforts at compliance. Lavenex also notes the differentiation of the EU's external governance in the area of migration with a strong sectoral focus being clearly evident.

The differentiation of governance means that patterns of interaction have acquired a strong sectoral focus, i.e. on the migration and border security sector, with the development of routinized and regular interactions between officials in various multilateral forums within and outside the EU system. Differentiated governance in the area of migration has also been supported and facilitated by international organizations such as the International Organization for Migration (IOM) that provides migration management services to its member states. This is redolent of the tendency towards "transgovernmentalism" that has been identified in areas of "high politics" where states remain the key actors, but the context within which they operate has changed as a result of routine and regular interactions. This changes the strategic context for policy and may also

have effects on the preferences and identities of actors involved in these interactions (Slaughter 2004). Joseph (2014) sees such governance – or governmentality as he puts it – as consistent with a broader shift from direct forms of intervention to policies of “disaster prevention”. However, as this article shows, resilience is linked not only to disaster prevention, but also to the development of “adaptive capacity” deigned to pre-empt policy challenges. In the context of the external dimension of EU migration policy this can be understood as efforts to “keep people in their place” (Lavenex, 2004, 2006, Bakewell 2008). Walker and Cooper (2011, p. 144) describe a “pervasive neo-liberal philosophy of adaptive systems” that they see as more broadly consistent with some of the mantras of global governance. Put another way, partners and stakeholders are encouraged to “take the lead”, but with the idea that they will “do the right thing” (Joseph 2014, p. 5).

This article explores the interactions between environmental and climatic change, migration, and security in order to highlight the place of ideas about resilience in the external dimension of EU migration policy. The starting point is the very powerful scientific consensus that the world is getting warmer and that this will have important implications for the ways in which societies are governed and the ways in which states relate to each other in the international system (IPCC 2013). This evidence powerfully suggests that a warming world will lead to rising sea levels, changes in atmospheric chemistry, increased expanse of deserts, the melting of mountain glaciers, and the increased occurrence of extreme weather events. Such events will draw into view complex issue linkages between institutional responsibilities and policy areas while also necessarily impinging on political decision-making. For example, some populations will clearly be exposed to the effects of environmental changes as rising sea levels may threaten coastal settlements while desertification will affect the sustainability of household livelihoods for millions of people in areas exposed to such changes. In total, hundreds of millions of people across the globe live in areas that render them vulnerable to such changes. But the question is whether these people are forced to migrate? Interest in this question has ascended the policy agenda in recent years through notions such as the “environmental migrant”, “environmental refugees”, and “climate refugee” (El Hinnawi 1985). In cases of fast-onset environmental changes such as natural disasters people will be forced to move. However, much environmental change is slower onset, and its effects are likely to interact with a range of economic, social, political, and demographic factors to affect migration outcomes (such as who moves, whether this movement is intra-state or international, the distance and duration of movement, etc.). These form the general parameters of the debate about environmental change and migration. We now move on to explore the political articulation of this debate and its relationship to debate about security and the external dimension of EU migration governance.

The debate about the potential effects of environmental change on migration developed during the 1980s and 1990s and was driven by environmental scientists concerned about the effects of environmental and climate change on populations in affected areas. A key feature of this work was estimates of the numbers of potential migrants. These estimates ran into the hundreds of millions with the argument then developed that urgent measures needed to be adopted to protect those people that could be affected by such change. For example, it was argued that environmental change could lead to up to 200 million people by 2050 becoming “environmental refugees” (Myers 2002). There was a tendency to represent such migration as a potential natural disaster

requiring urgent measures to offset risk. These estimates were then used by campaign groups such as Friends of the Earth and Christian Aid to draw attention to the potential scale of the issues. Drawing from these perspectives and maintaining the security frame, it was also argued that environmental change could exacerbate conflicts and thus drives displacement and forced migration (Homer-Dixon 1991).

While these estimates draw from only a very limited number of sources that themselves admitted their provisional nature, the projection of potentially large-scale migration became a notable feature of the debate about the human effects of environmental and climate change. Big numbers were, for example, taken forward by the influential Stern Report produced for the British government that reproduced the estimate of between 150 and 200 million climate-related migrants by 2050, albeit by drawing from early provisional evidence rather than any substantial new analysis (Stern 2006). As discussed below, there are good reasons to doubt some of these claims, but the point that is now developed is that the projection of large numbers of potential migrants did have effects on the EU political system given the prevailing fears about the effects of large-scale migration.

The research evidence and projections of numbers of potential migrants outlined above were designed to draw attention to the scale of the issues, but projections of hundreds of millions of migrants can just as easily fuel security-driven perceptions of the “migration problem”. To take an example, in March 2008, the then EU High Representative for the Common Foreign and Security Policy, Javier Solana, presented a paper to the European Council, entitled *Climate Change and International Security* (CEC 2008). There was specific reference to “environmentally-triggered additional migratory stress” and the point was made that “Europe must expect substantially increased migratory pressure”. Not only could environmental and climate change lead to increased migration, but, more specifically, this would lead to large flows towards the EU. Moreover, this was then taken forward as a theme by foreign and security policy actors when it is also plausible that the issues could be understood as challenges for those dealing with development and/or climate policy (Geddes and Somerville 2012).

This security framing illustrates how policy-makers often focus on the possibility that environmental change “triggers” specifically international migration (as opposed to internal migration), yet this proposition has been challenged by recent research evidence that suggests that the issues need to be reconsidered and resultant policy responses reframed (Foresight 2011). In short, this research evidence not only shows how and with what effects environmental and climate change can drive migration, but also shows that their effects are more likely to be evident through interaction with other economic, social, political, environmental, and demographic factors. The very strong influence of economic factors such as relative inequalities of income and wealth on migration decisions means that people may move for economic reasons towards and not away from risk. This can take the form of movement to urban areas in low-elevation coastal zones (LECZs) that may themselves be exposed to the effects of rising sea levels. People living in areas that are affected by environmental and climate change may choose not to move or lack the resources to move while environmental change may further erode resources and could lead to “trapped populations” in areas exposed to the effects of environmental change (Black *et al.* 2011, Geddes *et al.* 2012).

These issues are likely to have powerful effects on the Mediterranean as it has significant dryland areas exposed to the effects of desertification combined with large

settlements in low-elevation coastal areas potentially exposed to the effects of rising sea levels. For example, more than 33 million people in SMPCs live in LECZs that create exposure to the effects of rising sea levels. However, as noted, vulnerability to the effects of environmental and climate change should not be seen as a simple trigger mechanism for large-scale displacement; some people may choose not to move or be unable to move while others may move internally to large cities. These outcomes arise because the effects of environmental change on both internal and international migration to, within and from SMPCs, are likely to be indirect and occur through interactions with other potential drivers of migration (economic, social, political, and demographic). Of particular importance are the effects of economic drivers, political upheaval, and conflict in the south Mediterranean region that clearly have had and will continue to have powerful effects on migration. These effects, however, are complex and could lead to displacement but could also erode the resources that allow people to migrate and thus mean that people are unable to move. In this latter situation, people may be trapped in areas where they are exposed to serious threats to their lives and livelihoods, including those arising from environmental change (although these may well not be the most immediate threats).

The issue of resources (financial, physical, and social) is central to migration decisions. Environmental changes such as the drying of land can have negative effects on resources by affecting livelihoods in rural areas while migration either internally or internationally can be a way of diversifying income in order to sustain livelihoods. Migration decisions are also likely to depend on social connections that link people in sending and destinations. We can now consider how this connects with the powerful global trend of rapid urbanization. Migration interacts with this trend to the development of large cities. Although it is not always central to the analysis of the external dimension of EU migration governance, it could be argued that interactions between urban growth and migration (both internal and international) present some of the key and most pressing challenges but cannot be simply read as migration policy challenges. The EU Strategic Guidelines on Migration and Asylum (SGMA) agreed by EU member states in June 2014 focused mainly on external challenges to EU member states, but mentioned only demographic change and political instability. These can, of course, drive migration, but the Strategic Guidelines present only a partial picture of migration drivers. They neglect the key role played by relative income and wealth inequalities and also neglect the role played by social factors (such as networks) and of environmental/climate change. The SGMA thus reinforce the idea of migration as a threat to the EU by raising the spectre of instability and demographics as potential drivers of mass migration. The Guidelines neglect economic, social, and environmental. They also neglect that the interaction between these various drivers may be a driver of internal migration (often towards large cities) or, alternatively, may mean that people are unable to move and may be “trapped” in areas in which they are exposed to risks (of poverty, conflict, environmental change, for example). A key point that emerges from this discussion is that migration (both internal and international) towards growing urban areas in SMPCs raises issues associated with the sustainability of urban environments, such as the provision of water, health, education and other services, the need for urban planning that protects the rights and well-being of migrants, and measures to secure tenure rights in both formal and informal settlements. In such terms, the development of “adaptation” and “resilience” as the frames for a response leads to a focus on options that include migration and non-migration

policies such as the transmission of remittance incomes as well as measures to help sustain rural livelihoods such as irrigation systems that could help to maintain cultivable land. These are not to be found in the EU's SGMA.

By shifting attention from some supposedly imminent (albeit, in reality, unlikely) threat of mass migration to Europe, and by looking instead at the interplay in SMPCs between migration and key global trends such as environmental change and urbanization, it is possible to understand more about the emergent EU strategy of "governing from a distance" and the ways in which this ties in with ideas about vulnerability, adaptation, and resilience. This then presents an alternative way of thinking about the effects of environmental change on migration by emphasizing its multicausal dynamics while also suggesting that environmental change is unlikely to be a simple trigger for migration.

### **Vulnerable populations**

Central to the adaptation framework is the idea of vulnerable populations exposed to the effects of environmental and climate change. This section argues that it is possible to identify populations in SMPCs that are likely to be seen as vulnerable to the effects of climate change, but that this is not the same as identifying potential migrants because, as already outlined, migration is multicausal and the effects of environmental change will interact with other factors such as economic and political change. The broader point is that EU external migration governance seeks to keep the vulnerable where they are by trying to find ways to promote their adaptation and build resilience. This also means relating international migration in the South Mediterranean to the broader social, economic, and political changes within which it is nested and which provide the context for the impact of transboundary issues such as environmental change and migration on national and regional governance systems.

The UN-Habitat Report on *The State of Arab Cities* highlights the potentially destabilizing effects of environmental and climate change. Climate change is seen to possess the potential to destabilize the region through its effects on competition for scarce resources, food security, poverty, social instability, and resource conflicts. The UN-Habitat Report goes on to note that: "climate change can affect water supply, ecosystem services, energy provision, industry and services". "It can disrupt local economies and strip populations of their assets and livelihoods, in some cases leading to mass migration" while "impacts tend to reinforce existing inequalities as a result climate change can disrupt the social fabric of cities and exacerbate poverty" (p. 65).

Dryland areas in SMPCs are exposed to the effects of both land degradation and climate change. Land degradation is a reduction in the suitability of land for agriculture as a result of erosion, salinization, or a decline in soil nutrients. These may be initiated by human activities such as farming, grazing, and clearance for firewood and may be exaggerated by periods of drought or flood. According to the Millennium Ecosystem Assessment, between 10% and 20% of the world's dry lands suffer from land degradation. Most climate models simulate an increase in drought frequency across most of the dryland areas around the Mediterranean. An increase in the frequency of droughts reduces the productivity and reliability of agricultural and pastoral systems. [Table 1](#) shows the percentage of population living in dryland areas in each of the SMPCs.

Table 1. Percentage of the population in SMPCs living in dryland areas<sup>a</sup>.

Country	Percentage of the country's population living in dry lands
Algeria	65.8
Egypt	100
Israel	100
Iraq	100
Jordan	100
Libya	100
Syria	96.2
Tunisia	98.3

<sup>a</sup>Data not available for Lebanon and occupied Palestinian territory.

Source: Stafford Smith *et al.* (2011).

Table 2 extends the analysis to show the extent of territory in each of the 10 SMPCs within LECZs which is defined as the contiguous area along the coast that is less than 10 m above sea level. In LECZs, environmental events like floods can affect whole communities, directly and indirectly impacting the lives and livelihoods of people who reside there. For example, approximately 30% of Egypt's population lives in the LECZs of the Nile delta. An overall total of more than 33 million people in the 10 SMPCs live in LECZs. Table 3 further breaks down the data to explore the distribution of this population in LECZs between rural and urban areas.

To summarize, significant numbers of people in SMPCs are exposed to the potential effects of the drying of land and rising sea levels. However, as explored more fully in the next section, this exposure and subsequent potential for vulnerability does not necessarily mean that these people will migrate either internally or internationally. It is in this context that we can begin to delineate the ways in which the security framing of EU migration governance can be challenged by the development of a framework that identifies vulnerable populations, makes different assumptions about the migratory potential of these populations, and introduces ideas and practices associated with "governing from a distance".

Table 2. Extent of LECZ in southern Mediterranean countries and exposed population.

Country	LECZ (km <sup>2</sup> )	Exposed population
Algeria	1,236	739,375
Egypt	21,761	25,641,200
Iraq	34,658	2,664,710
Israel	201	245,770
Lebanon	66	679
Libya	9,550	645,381
Morocco	238	1,739,490
Palestine	21	72,214
Syria	74	98,900
Tunisia	4,026	1,388,600
Total	37,173	33,236,319

Source: Vafeidis *et al.* (2011).

Table 3. Urban and rural populations in South Mediterranean countries within the LECZ, 2000.

Country	Population in the LECZ (km <sup>2</sup> )				
	Total	Total urban	Urban (%)	Total rural	Rural (%)
Algeria	739,375	196,507	26.58	542,868	73.42
Egypt	25,461,200	3,735,020	14.67	21,726,180	85.33
Iraq	2,664,710	370,008	13.89	2,294,702	86.11
Israel	245,770	80,894	32.91	164,876	67.09
Jordan	679	3	0.44	676	99.56
Libya	645,381	125,268	19.41	520,113	80.59
Morocco	1,739,490	202,621	11.65	1,536,869	88.35
Palestine	72,214	0	0	72,214	100
Syria	98,900	18,541	18.75	80,359	81.25
Tunisia	1,388,660	355,506	25.60	1,033,154	74.40

Source: Vafeidis *et al.* (2011).

### Environmental change and migration decisions

Environmental and climate change can affect migration decisions now and in the future, but their effects are more likely to be *indirect* and operate through their interaction with and effects upon other migration drivers (such as economic, social, political, demographic, and environmental changes). For this reason, the terms “environmental migrant” and “climate refugee” are unlikely to be robust categories. Also, the presence of a potential migration driver does not mean that a person will migrate. As already noted, social, physical, and financial resources facilitate or militate against movement while gender and other forms of social inequality can affect migration. As noted, this can give rise to challenges that are not about “mass migration” but are associated with movement that can be towards and not away from environmental risk plus the very real possibility of “trapped populations” in areas that where people are exposed to the effects of environmental change.

Evidence suggests that economic factors are crucial in driving migration in ecological zones as diverse as dry lands, mountain regions and LECZs, and in geographical regions as diverse as the Mediterranean and Asian mega-deltas (Chappell 2011). The nature of these economic drivers (and of their interaction with social, political, demographic, and environmental drivers) has changed over the last 50 years. There is considerable uncertainty about how they will evolve and change in the future in the EU’s SMPCs, linked not least to the outcomes of economic and political change. Political upheaval has been a key migration driver in SMPCs. Conflicts such as the Gulf Wars and in Israel, Palestine, Libya, and Syria have all led to massive displacement. Conflict can also cause people to be trapped in areas rather than for them to be displaced, thus making conflict-related movements particularly unpredictable, dynamic, and hard to analyse. This questions “Malthusian” approaches to the analysis of “environmental scarcity” or “environmental security” as migration drivers. The development of an adaptation perspective within the strategy of governing from a distance emphasizes the capacity of households and communities in the light of broader economic and socio-political factors. For example, water resources and water scarcity are important features of conflict in the eastern Mediterranean, but there is no evidence that water problems have caused local conflict that have led to migration. Indeed, a more pertinent question is why there has

been so little migration as a result of water stresses in locations such as the divided territories of Cyprus, Israel–West Bank and Gaza. One explanation is the use of alternative techniques, such as reduced water allocations to agriculture; increasing groundwater abstraction; household-level demand/supply management techniques; increasing consumption of bottled water; and “the fact that water shortages are now considered sufficiently normal and routine that they are integrated into everyday life and experiences”. For Palestinians, a further reason why water stress and conflict has not led to migration is “the fear of losing the right to return to the West Bank and Gaza ... and the political importance of maintaining a physical presence within the homeland” (Selby and Hoffmann 2012, p. 1003). This is another example of how, for various cultural and political reasons, a group of people is unable or unwilling to leave their homes despite environmental vulnerability.

### The scale of movement and destinations

Exposure to the effects of environmental change does not necessarily mean migration or, if migration does occur, it may be towards and not away from risk (i.e. to a large city exposed to environmental risk). This section now examines the scale and time frame of potential movement with a particular focus on environmentally vulnerable urban areas with assessment of the potential effects of environmental change on international migration. Such a discussion is shown to be particularly relevant in the context of the EU’s external governance of migration.

A key challenge is likely to be movement towards and not away from environmental risk. Rural–urban migration has been and is a central aspect of social change in SMPCs and environmental change may contribute to this process. The drying of land, for example, has negative effects on agricultural productivity and can lead to migration away from affected rural areas. Indeed, migration will often be towards urban areas *whether or not* the environment has been a factor in the decision to move. Nonetheless, migrants may then become more exposed to other environmental risks and hazards due, for example, to the location of cities in low-lying coastal areas and the concentration of migrants in informal settlements in areas of cities that are particularly exposed to such risks. Table 4 draws from data in *The State of Arab Cities* to show projected growth through until 2020 in major urban areas in SMPCs with populations of more than 750,000 or that are projected to rise to more than 750,000.

*The State of Arab Cities* observes, for example, that in pre-civil war Syria rural–urban migration was spurred by drought and environmental degradation and led to an estimated 200,000–300,000 people moving to cities from the north east of the country between 2000 and 2010, although this has been followed by massive displacement mostly to neighbouring states as a result of conflict. In Jordan the level of urbanization stands at 78%, with 71.5% of the total population resident in the cities of Amman, Irbid, and Zarqa. Rapid industrialization in Jordan during the 1970s and 1980s also contributed to urban growth. Around 500,000 of the 2 m population of Amman had fled conflicts in Palestine and Iraq, which has placed pressure on resources. Much of the international migration to Jordan is refugees from the OPT, Iraq, and, more recently, Syria.

The critical issue that arises is not whether migration was motivated by environmental change, but rather whether the migration takes place in the *context* of environmental change. For example, drought famine or threats to agrarian livelihoods can generate a desire for out-migration from communities or settlements in the SMPCs. However, the

Table 4. Urban agglomerations in the southern Mediterranean with populations of 750,000 or more: size and rate of change 2000–2020.

	Estimates and projections ('000)			Annual rate of change (%)		Share in national urban population (%)		
	2000	2010	2020	2000–2010	2010–2020	2000	2010	2020
<i>Algeria</i>								
Algiers	2254	2800	3371	2.17	1.86	12.4	11.9	11.5
Oran	705	770	902	0.88	1.58	3.9	3.3	3.1
<i>Egypt</i>								
Alexandria	3592	4387	5201	2.00	1.70	12.0	12.0	11.5
Cairo	10170	11001	12540	0.79	1.31	33.9	30.0	27.7
<i>Morocco</i>								
Agadir	609	783	948	2.51	1.91	4.0	4.2	4.1
Casablanca	3043	3284	3816	0.76	1.50	19.8	17.4	16.5
Fès	870	1065	1277	2.02	1.82	5.7	5.6	5.5
Marrakech	755	928	1114	2.06	1.83	4.9	4.9	4.8
Rabat	1507	1802	2139	1.79	1.71	9.8	9.6	9.2
<i>Israel</i>								
Haifa	888	1036	1144	1.54	0.99	16.0	15.5	14.9
Jerusalem	651	782	901	1.83	1.42	11.7	11.7	11.7
Tel Aviv	2752	3272	3689	1.73	1.20	49.5	48.9	48.1
<i>Jordan</i>								
Amman	1007	1105	1272	0.93	1.41	26.5	21.7	21.2
<i>Lebanon</i>								
Beirut	1487	1937	2090	2.64	0.76	45.8	52.2	51.4
<i>Libya</i>								
Tripoli	1022	1108	1286	0.81	1.49	25.0	21.7	20.8
<i>Syria</i>								
Damascus	2063	2597	3213	2.30	2.13	2.41	20.7	20.7
Aleppo	2204	3087	3864	3.37	2.25	25.7	24.6	24.2
Hamah	495	897	1180	5.96	2.74	5.8	7.2	7.4
Homs	856	1328	1702	4.39	2.48	10.0	10.6	10.7

Source: UN-Habitat (2012), data for Tunisia not available.

effects of environmental change may also reduce the ability of people to move due to negative effects on household resources. International migration is relatively costly and requires substantial resources. People with subsistence-based livelihoods who have been adversely affected by drought or famine are less likely to possess the social, economic, and human resources to engage in this form of migration. Thus, environmental change may reinforce the tendency towards shorter-distance migration as opportunities to migrate are generally reduced for those who suffer the impact of environmental change. This means that the effect of environmental change and its interaction with other migration drivers is likely to be a reduction in migration options, and certainly to reduce longer-distance, international migration within the SMPCs and beyond. Thus, if EU external migration governance is based on the idea of some kind of imminent threat of mass migration then this is likely to be misplaced. Bakewell (2008) explores the impact of EU migration policy in countries in sub-Saharan Africa (SSA) to identify a preference for

keeping people in their place, which diminishes the scope for people to use migration as a way of sustaining livelihoods.

It is also important to extend the analysis to SSA, which is relevant for SMPCs and for the EU in the context of the external governance of migration because of the idea that there is potential for onward movement to the EU. Much movement from SSA will relate to the effects of environmental and climate change although much of this migration will be internal and within states or relatively short distance to neighbouring states. Whilst the availability of assets will affect decisions about migration, in terms of scale it is likely that any movement towards the EU will be significantly smaller than movement within SSA states or to neighbouring states. For example, a study of the effects on migration of the 1983–1985 drought in Mali showed a significant increase in short-cycle circulatory migration during this period, and that migration was a crucial strategy for the majority of families to get them through the drought (Findley 1994). However, overall migration levels remained constant because there was actually a *reduction* in international migration, mostly to France or nearby African countries, during this period. Similarly, the major drought in Burkina Faso in the early 1970s saw short-term migration as a widespread response measure to diversify incomes; yet longer-term and longer-distance migration only increased during periods of *higher* rainfall, as this generated the capital to enable travel to occur (Hendry *et al.* 2004).

### **Building “resilience”**

The external governance of EU migration has sought to export measures to neighbouring states, including SMPCs with a preference for keeping people in their place. This has meant that a focus for EU migration policy (necessarily linked to a range of other policy areas such as trade, development, agriculture, and security) has been on building forms of resilience based on an understanding that migration represents a failure to adapt (a last resort) when, in fact, it might be better understood as a form of adaptation that can facilitate the movement of some members of a household in a way that helps to sustain the livelihoods of themselves and other family members, including those that stay behind and may, for example, receive income linked to migration (remittances).

The article now moves to assess ideas about environmental and climate change as “triggers” of mass migration, which it is shown, neglect two other important potential outcomes: first, that people may move towards and not away from risk; and, second, some people may be trapped in areas that expose them to risk.

### ***Movement towards risk***

There are important challenges in relation to migration to cities that can occur in the context of environmental change (Foresight 2011). For example, Cairo is the only Arab mega city, which is usually defined as a city with a population of over 10 million people. There are an estimated 20 million people in the Greater Cairo region. A key issue arising from urbanization is informal settlement. In Cairo, 62% of households were estimated to live in informal settlements (UN Habitat 2012). More generally, many cities around the world, including in SMPCs and SSA, will experience growing populations as rural–urban migration continues – in some cases influenced by environmental change, in some cases not. Such growing cities will *in addition* face increasing challenges from future environmental change, such as flooding, water shortages, and coastal storms.

Furthermore, new city migrants tend to be the most vulnerable as they concentrate in hazardous districts of cities. Migrants are often located in such settlements where there are low levels of water, health, and other services. This does require effective urban planning plus measures to protect the rights and well-being of migrants. In a similar vein, World Bank research has identified weak and unclear tenure rights in both formal and informal settlements as the most critical mechanism for city planners and governments to address in reducing the vulnerability of urban populations, including new migrants (Moser *et al.* 2010).

### Trapped populations

There is ample research evidence to demonstrate that the poorest are least able to migrate. Furthermore, it is also recognized that the poorest are also likely to be the most vulnerable to environmental change (Smit and Wandel 2006). The Foresight report for the UK government synthesized these two outcomes to identify a group of people – the poorest, with fewest financial/political/social assets – who were simultaneously most vulnerable to environmental change, and yet their socio-economic situation means they have the fewest options to migrate (Foresight 2011). This situation is represented in Figure 1.

If people who are vulnerable to being trapped do eventually migrate, then they are likely to do so in very vulnerable situations where they are exposed to social and financial exploitation, or may move to locations which are unsafe, environmentally or otherwise.

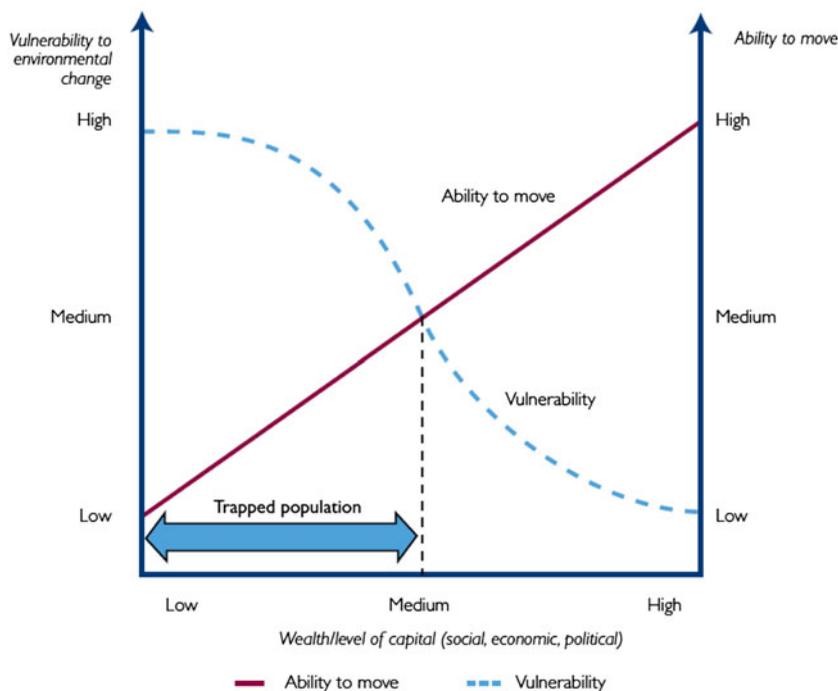


Figure 1. Representation of how the level of wealth/capital (social, economic or political) correlates with vulnerability to environmental change and can influence the ability to move.

Source: Foresight (2011).

Furthermore, in many situations this group will not possess the assets to migrate and will be trapped in increasingly precarious environments – often in marginal rural areas, but sometimes also in vulnerable urban locations. In this situation, an inability to migrate may actually mean that populations are more vulnerable to *ex post* displacement from environmental events. It could then be argued that the facilitation of migration would help to offset future problems of forced migration and displacement while also allowing for income sources associated with migration such as remittances, to help sustain the livelihoods of family members in affected areas. This is clearly an example of how the building of resilience can be framed as an adaptation response to the effects of environmental change on migration, but to do so necessarily draws in a wide range of policy areas that are not the normal focus for migration policy, including development and climate policies.

This section now moves on to explore five areas of policy that all relate to the development of adaptive capacity and the building of resilience in the face of environmental and climate change and that have a clear relationship both to the EU's GAMM and SGMA but also, more broadly, to the ideas and practices associated with governing from a distance. First, measures will be required to address the long-term rate of change, including climate policy, policies that seek to reduce the impact of environmental change, and policies to build resilience to environmental change.

A second set of measures focuses on adaptation in SMPCs to shortages of natural resources such as water and cultivable land for agricultural production. For example, an increase in irrigation has led to a large increase in agricultural productivity (Montgomery 2009). The total irrigated area in Mediterranean countries (including SMPCs) doubled in 40 years to exceed 26 million hectares in 2005, which represented more than 20% of the land under cultivation (Plan Bleu 2009). Access to irrigation has become the main driver for recent agricultural change in North African countries, and irrigation technology and experience have accumulated in this area. Awwad (2003) identifies economic drivers for the increase in irrigation in North Africa including “out-of-season” production of vegetables and fruits, which is cost-effective because of high market prices and low labour costs in North Africa.

A third set of measures concerns approaches that seek to plan for and respond to migration influenced by environmental change, as well as to the challenges of movement towards (and not away from) risk, and of immobility. Of particular importance is planning for urban growth and adaptation, which includes dealing with tensions and conflicts associated with migration and, and potentially immobility, influenced by environmental change. This necessarily includes policies that focus on the welfare of new city migrants that may live in areas that are particularly exposed to environmental risk (Foresight 2011). In the light of this, it is particularly important to build resilience in urban areas exposed to the effects of environmental change within which migrants are more likely to live. Policies that seek to address urban planning and governance are not migration policies per se, but are important in the light of future migration and environmental change, and may include: effective urban planning and land use; the provision of health and education; measures to develop human security and social protection; and measures to tackle vulnerability to environmental change.

A fourth set of measures concerns responses at regional and international level to address protection gaps for those displaced, but here the effects on SMPCs have been relatively minimal. The UN's Guiding Principles on Internal Displacement (GPID) recognized that trying to create “hard law” at a global level to protect internally displaced

people could be long and drawn-out process with no guarantee of success. Instead, a set of principles was developed through an expert-led consultative process. This avoided the need for negotiation and agreement at state level. The Principles were presented to the UN Commission for Human Rights in 1998 and have been endorsed by the UN General Assembly. They seek to provide protection from forced displacement, assistance during forced displacement and return, and resettlement and reintegration assistance to:

persons or groups of persons who have been forced or obliged to flee or to leave their homes or place of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognised State border

These Principles offer some scope for development of enhanced protection and assistance to those whose displacement is influenced by global environmental change. In 2009 the African Union (AU) adopted the AU Convention for the Protection and Assistance of IDPs in Africa. The Kampala Convention, as it is known, is based on the GPID and is an important example of the translation of “soft law” into “hard law” at a regional level. Article 4 of the Convention states that “State parties shall take measures to protect and assist persons who have been internally displaced due to natural or human made disasters, including climate change”. While this more piecemeal and disaggregated approaches may provide a solution to displacement influenced by environmental change, there are still limitations. The Kampala Convention has been signed by 39 and ratified by 22 of the AU’s 53 members (as of November 2014). The GDIP are non-binding and their diffusion into national legal systems is not, as yet widespread. There are also extensive shortcomings in the institutions charged with implementing them and the exclusion of certain groups, for example non-citizens who are displaced within their host country. A further significant limitation is that, at the time of writing in March 2014, no SMPCs that are also AU members (Algeria, Egypt, Libya, and Tunisia) have signed the Kampala Convention.

More ambitiously, a fifth set of policies could be pursued that recognize that migration can be a solution for people exposed to the effects of environmental change. There is only limited scope in the external dimension of EU migration governance for migration and mobility. The EU’s GAMM (CEC 2011) does seek Mobility Partnerships that do not focus on migration in the context of environmental change but that could create scope for migration for primarily economic reasons that may be influenced by the effects of environmental change. These are, however, agreements in international law between the EU and non-member states and decisions about the numbers of migrants to be admitted remain a matter for the member states. Given that EU approaches have sought to stem rather than solicit migration, there is an obvious difficulty that arises when trying to see migration – and the encouragement of migration – as a form of adaptation rather than as a failure to adapt or as a potential disaster to be averted. As has been discussed earlier, the EU’s external governance of migration has centred on strategies that seek to govern from a distance and to keep people in their place, if possible. One potentially significant development is the emergence of “Mobility Partnerships” that are agreements in international law between the EU and non-member states with provisions for flows of migrants (particularly for short-term or circular/back and forward flows). However, a significant constraint on such partnerships is that the numbers of migrants to be admitted remains strictly a prerogative for the member states (affirmed by Article

79(5) of the Lisbon Treaty). A Mobility Partnership with Morocco was agreed in late 2013 while one with Tunisia will be finalized in 2014. These reflect the EU's interest in temporary and circular migration that may allow international migrants with a wide variety of skills to play a role in high-income or emerging economies. In early 2014, the EU also reached agreement on a directive covering migrant seasonal workers, but, as with Mobility Partnerships, this does not allow the EU to impinge on the right of member states to determine the numbers of such migrants to be admitted. Similarly, remittance income is not a panacea for development, but there is significant evidence of the role played by remittances as a source of international capital that helps households to sustain their livelihoods, particularly in rural areas. Remittance income has remained relatively stable in SMPCs in the aftermath of the post-2008 economic crisis. Research for the UK government argued that:

Reduced options for migration may cut off important forms of income support, such as remittances, and in the long run may make it unsustainable for households and communities to remain *in situ*, ultimately leading to a much larger migration at a later point, potentially in an unplanned and vulnerable way. (Foresight 2011)

### Conclusions

This article asked how and in what ways environmental change and migration governance were defined as security challenges, examined the perceived nature of the challenge, and also explored how new research has questioned initial perceptions. The article then examined the ways in which this new evidence has informed perceptions of the challenges with implications not only for EU external governance of migration but also, more broadly, for the associated ideas and practices about governing migration from a distance and the differentiation of migration governance.

The debate about the effects of environmental and climate change on human migration has been strongly driven by projections of the potential for large-scale migration. The impact on the policy agenda was for the issue to be viewed as a foreign and security policy issue with an emphasis on the need for pre-emption and/or controls to prevent large-scale migration viewed as akin to a natural disaster. The EU's external governance of migration has thus pursued a range of policies that involve seeking closer collaboration with sending countries with the aim of keeping people in their place. In fact, the EU *qua* EU creates no possibilities for migration by people from non-member states as admissions remain a matter for the member states.

The article then examined how and with what effects new research evidence has challenged the idea that hundreds of millions of people will be forced to migrate as a result of environmental and climate change. Rather than viewing such changes as a trigger mechanism for large-scale movement, this new research has argued that environmental change needs to be understood as potential drivers of migration alongside other economic, social, political, and demographic factors that can lead to migration. Moreover, the reasons that may cause people to move may also be reasons that channel or direct this movement or that prevent people from moving. Thus the resultant challenges may be more complex than first thought and hold important implications for SMPCs and for the EU. First, movement may be towards and not away from risk, particularly for economic reasons to large cities. Second, environmental change may interact with other

factors to reduce the ability to migrate and can lead to situations where people are trapped in areas in which they are exposed to serious environmental risk.

On this basis, the article argued that governing from a distance has acquired a new focus on adaptation and resilience that is consistent with governing from a distance, but that also places migration in the context of a broader range of factors and related policy challenges that can be associated with the human security components of adaptation and resilience. This was illustrated for SMPCs through assessment of exposure to risk, but also of key dynamics such as urban development. It was argued that these are – and will increasingly become – central to EU strategies of governing from a distance, which in the context of the external governance of migration has involved a preference for keeping people in their places. This article suggested that such a preference tends to be based on an understanding of migration as a failure to adapt, but an alternative reading could see migration as a form of adaptation, although measures to promote migration seem to be a bridge too far for policy-makers.

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No potential conflict of interest was reported by the author.

### Notes on contributor

Andrew Geddes is Professor of Politics at the University of Sheffield and, for the period 2014–19, has been awarded a European Research Council Advanced Grant for the project Prospects for International Migration Governance (MIGPROSP).

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