Geostrategic Implications of Climate Change in the Mediterranean

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The recent IPCC (Intergovernmental Panel on Climate Change) report (2013) shows that global warming is human made, is accelerating and is having and is going to have massive impacts by altering the basic conditions of life on earth. It is increasingly interacting with everything that matters to humans; mainly food, health, water, energy, environment and livelihood securities. This is basically turning climate change into a political issue, and a matter of defence and security for all nations (Gwynn, 2008-2010). Accordingly, global warming, as a new geostrategic issue, is putting international relations under pressure with the potential to affect existing governance structures. These are the reasons why climate change – as a growing multidimensional crisis – is becoming a prominent item on the agenda of world and regional concerns.

According to the German Advisory Council on Global Change (WBGU) report (2008), six key threats to international security will arise if mitigation efforts fail: the possible increase of vulnerable states; risks to global economic development; risks of growing international distributional conflicts between the main drivers of climate change and those most affected; the risk to human rights and the industrialised countries' legitimacy as global governance actors; triggering and intensification of migration; and overstretching of classic security policy. For Brauch (2010), some of these conflict constellations are highly relevant for the Euro-Mediterranean region such as: climate-induced degradation of freshwater resources; climate-induced decline in food production; environmentally-induced migration; and climate-induced increase in storm and flood disasters.

This paper aims to highlight some of the most important geostrategic implications of climate change for the Mediterranean. After analysing climate change as a growing security and geostrategic issue both internationally and in the Mediterranean, the analysis assesses the vulnerability of the Mediterranean to climate change and shows the areas where climate change may provoke a geostrategic shift in the Mediterranean – such as water security, food security, and environmental migration.

Climate Change as a Growing Geostrategic Issue

Environmental geostrategy is happening now with the emergence of climate change, and appears to be the new way a growing number of governments and non-state actors are starting to adapt to its complex consequences. This new approach tends to orient strategic thinking towards understanding how and when new tensions and armed conflicts could arise through the convergence of environmental, social, political, and economic tensions (for example, we are witnessing an enhanced interest in the strategic implications of the summer melting of the Arctic, which may well open the famous 'north-west passage' in the coming years and start a new 'all resources race' in the region). This is the logic behind the new extreme environment security (Valentin, 2013).

Additionally, there is currently a large number of worldwide occurrences where and when the climate

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interacts with diverse, complex and volatile social, political, economic and strategic situations, making them merge in strange new ways. This accelerating and unstable redistribution of power and tensions around the world is deeply connected with the climate destabilisation of the planet. Climate change is one of a series of powerful planetary geophysical and biological changes that are under way (like biodiversity crises, land and freshwater use, ocean acidification, etc.). Since changes are taking place so fast, they are altering the basic equilibrium on which the security of nations rests and playing new roles as powerful strategic forces, which need to be fully understood. According to Valentin (2013), these forces are reshaping the entire international relationships network, as well as the fabric of nations, societies, and communities. They are causing new kinds of tensions, which are the engines of current, and coming, conflicts, struggles, revolutions, and wars.

From a state-centred international security perspective, the WBGU report (2008) argued that without resolute counteraction, climate change will overstretch many societies' adaptive capacities within the coming decades. This could result in destabilisation and violence, jeopardising national and international security to a new degree.

The Mediterranean as a Climate Change 'Hot-Spot'

The Mediterranean lies in a transition zone between the arid climate of North Africa and the temperate and rainy climate of central Europe and is affected by interactions between mid-latitude and tropical processes. Because of these features, even relatively minor modifications in the general circulation can lead to substantial changes in the Mediterranean climate.

Accordingly, a robust picture of climate change over the Mediterranean currently emerges, consisting of a pronounced decrease in precipitation and increase in warming. The projections ascertained from global and regional model simulations are generally consistent with each other on a broad scale. They suggest that the Mediterranean might be one of the most prominent 'Hot-Spots' in future climate change projections (Giorgi and Lionello, 2008).

According to existing studies, many climate-induced impacts are highly relevant for the Mediterranean such as the degradation of freshwater resources, decline in biodiversity, regression in food production, environmentally-induced migration, and increase in storm and flood disasters. These impacts are currently affecting the water, food, health, environmental and political security of the region and have the potential to increase climate-induced conflicts among and within Mediterranean countries.

Climate Change as a Security and Geostrategic Issue in the Mediterranean

Whether and in what way climate change may alter the conditions of international and regional security is still under investigation. From this perspective, the initial effects of climate change will vary according to existing economic, political and social structures in different parts of the world, including the Mediterranean region. Organised violence is more likely to happen in weak states and regions with conflictual inter-state dynamics than in those characterised by cooperative relations. In the short to medium term, climate change is unlikely to alter the constitutive structures of security. However, depending on the severity of global warming, these conditions may change over the long term. A long-term development marked by unmitigated climate change could very well have serious consequences in terms of security (Haldén, 2007).

In the implementation paper (2008) of the European Security Strategy (2003), the 27 countries of the European Council concluded that "natural disasters, environmental degradation and competition for resources exacerbate conflict, especially in situations of poverty and population growth, with humanitarian, health, political and security consequences, including greater migration." This decision was based on a report of the High Representative and Commission presented in March 2008 "which described climate

change as a threat multiplier." The European Council also noted that "climate change can lead to disputes over trade routes, maritime zones and resources previously inaccessible" (Brauch, 2010).

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The WBGU, in its 2008 report, argued that climate change could also unite the international community, provided that it recognises climate change as a threat to humankind and soon sets the course for the avoidance of dangerous anthropogenic climate change by adopting a dynamic and globally coordinated climate policy. If states fail to act early and proactively, climate change may trigger numerous conflicts between and within countries over the distribution of resources, management of migration or compensation payments between the countries mainly responsible for climate change and those countries most affected by its destructive effects. The report also argued that climate change amplifies mechanisms which lead to insecurity and violence affecting, specifically, countries in transition, those with weak governance structures and poor countries affected by resource scarcity and often with high population growth. These local or national conflicts may spill over and destabilise neighbouring countries through refugee flows, arms trafficking or combatant withdrawal. The social impacts of climate change can thus transcend borders and expand the geographical extent of crisis and conflict regions.

Climate Change Impacts on Mediterranean Food and Water Security

Mediterranean countries are diverse from various points of view including their socio-economic development, climate, water availability, infrastructure levels, or social and ecological resources. However, the region as a whole is undergoing rapid social and environmental changes which may harbour negative implications for current and future sustainability and human security (Iglesias *et* al., 2011). This is particularly true for Mediterranean food and water security where pressures and impacts on water, soil, and natural resources are predicted to multiply under climate change.

Our current understanding of the Mediterranean climate leads to a projected overall temperature increase from 2 to 4 °C and precipitation changes of 10% to 50% by the 2080s. The changes are not equally distributed across regions or seasons. In many Mediterranean countries, especially in the Middle East and North Africa, water systems are already under intense stress. Roughly two thirds of Arab countries depend on sources outside their borders for water. Existing tensions over access to water are almost certain to intensify in this region. This will unavoidably lead to further political instability with detrimental implications for Europe's energy security and other interests. In southern Africa and the Sahel, droughts are contributing to poor harvests, leading to food insecurity in several areas with millions of people expected to face food shortages. Migration in this region, but also migration from other regions, through North Africa to Europe (transit migration) is likely to intensify. In Africa, and elsewhere, climate change is expected to have negative effects on people's health, in particular due to the spread of vector-borne diseases, which will further aggravate tensions.

In terms of food security, and according to WBGU (2008), the self-sufficiency rate in food – and especially cereals – in the MENA region has been declining rapidly since the 1960s and it is projected by the FAO to drop rapidly until 2030 and 2050. Climate change and bioenergy development will affect food security in its four dimensions – availability, accessibility, stability and utilisation. With global warming set at 2-4 °C, a drop in agricultural productivity is anticipated worldwide. This trend will be substantially reinforced by desertification, soil salinisation or water scarcity. In North Africa, the areas suitable for agriculture are already largely exploited. This may well trigger regional food crises and further undermine the economic performance of weak and unstable states, thereby encouraging or exacerbating

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destabilisation, the collapse of social systems, and violent conflicts. This situation will become even more dramatic in the ten countries in the Nile Basin that are already severely affected by a vicious circle of repeated droughts, hunger and famine.

Triggering and Intensification of Climate-Induced Migration

Decisions to migrate are usually the result of multiple considerations that reflect a complex combination of environmental, economic, social, security and political factors (Foresight, 2011). Early analyses of the impact of climate change and migration were based on an overly deterministic understanding of the relationship between the risk of environmental degradation faced by populations and the likelihood that they would migrate. In contrast, more recent research – such as the UK government's Foresight study – has taken a more sophisticated approach, paying greater attention to both the adaptive capacity of persons in low income countries, and the factors behind decisions to migrate. Thus, vulnerability to climate change may significantly impact migration drivers, but does not automatically imply that migration will occur. For this reason, it remains a challenging task to make reliable forecasts of population movements which are likely to result from climate change and related environmental degradation (European Commission, 2013).

Brauch (2010) argues that migration from the MENA region to the EU is already considered as a major security issue and it can be assumed that the number of environmental migrants will substantially rise in the future due to climate change. The increase in drought, soil degradation and growing water scarcity in combination with high population growth, unstable institutions, poverty or a high level of dependency on agriculture means that there is a particularly significant risk of environmental migration occurring and increasing in scale.

The Mediterranean is currently a crossroads where foreign migrants travel to Mediterranean countries in order to make the leap to Europe or the Middle East, or sometimes simply settle where they are. The extent to which increased environmental migration is likely to exacerbate this trend remains unclear. Migration from the Middle East and Africa to the EU is the most significant of this migration, but to cross the Mediterranean requires a certain level of resources. The groups who become environmental migrants consist mainly of those whose livelihoods depend on the environment, and those with fewer resources with which to cope with environmental distress. Environmental migrants are thus likely to be poor, and without the means to procure passage across the sea. In fact, most environmental migration occurs either within borders or to neighbouring states. That they are poor and with few resources also means that they are likely to be classified as illegal migrants (Stu Campana, 2010).

Conclusion

In the Mediterranean, there is a broad recognition that climate change is one of the defining challenges of the 21st century. However, for many decision makers in Europe the complexity and intractability of the diplomatic challenges posed by climate change, the short-term (political) costs of some of the policy actions required, and the risk of becoming associated with 'failure,' has led to a gradual disengagement. At a time of economic hardship, instead of investing in mitigation and adaptation, some governments are seeking to defer the necessary decisions.

This attitude will generate consequences and carry high costs in the future, as mitigation today reduces the need for costly adaptation measures tomorrow. Through carbon lock-in today, we are foreclosing development options well into the 2030s and 2040s. Climate security is inextricably intertwined with food, water, energy and even physical security. These manifold challenges humankind faces in the 21st century cannot be solved by traditional and power-based security strategies. They require a shift to an extended security approach which involves other ministries and agencies responsible for environmental, development, science and technology, as well as

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economic and social policies and measures to adapt to these new challenges and to mitigate against their impacts (Brauch, 2010).

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