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Climate Change and the Mediterranean: Reframing the Security Threat Posed by Environmental Migration

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Foreword

This report is part of a final research project for the Environment and Resource Management (ERM) Master's Programme at the Vrije Universiteit, Amsterdam, in conjunction with the Research Group Climate and Security (CLISEC), Universität Hamburg. It has been supervised internally by Dr. Frank Biermann, head of the Department of Environmental Policy Analysis at the Institute for Environmental Studies (IVM) Amsterdam, and externally by Dr. Jürgen Scheffran, professor in Climate Change and Security with CLISEC, Universität Hamburg. I am indebted to both for the time and energy they have spent editing drafts and pointing me in the right direction.

CLISEC has been working on multi-disciplinary research related to security and climate change; I have attempted to bridge several disciplines in my own research, in an effort to provide new insights on the security risks related to climate refugees and to offer options for new security policies within the Mediterranean. Since the project itself was only three months long, there was insufficient time for empirical research. Nevertheless, I have developed a conceptual model which I hope will be of use to CLISEC within the context of its ongoing research on the linkages between climate change, natural resources, human needs and societal stability. My research brings together all four, in an effort to discern something concerning the nature of these linkages. There are no answers contained within this work to the myriad of questions which remain unanswered on the subject of climate refugees, but I hope nevertheless that I have said something useful in regards to the way we look at the questions.

A final thank-you to Dr. Angela Oels at the Universität Hamburg whose efforts were instrumental in arranging this project.

Abstract

Environmental migration is seen by national policymakers as a security threat, particularly insofar as it manifests itself in mass population movements. Minimizing this perceived threat, however, has proven difficult, since little is known about the source, destination and motivations of environmental migrants. The solution that has been most widely adopted has therefore been to create security policies which resist environmental migrants altogether. This paper presents the hypothesis that environmental migrants are motivated not by the desire to immigrate, but by the desire to retrieve resources in order to return home, and that by denying migrants the resources they need to do so, governments are in fact exacerbating the problem of environmental migration, adding to the security threat. The paper extends the resilience theory of community coping capacity to explain environmental migration, arguing that rural villages send community members to urban centres in order to cultivate resilience-building resources for their homes. I finally conclude that resisting these migrants is counterproductive to efforts which aim to ease the overpopulation of urban centres.

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Section 1: Introduction

Climate change and human migration are growing international issues which have recently begun to intertwine. Host to a large percentage of migrants, and fingered by the IPCC as a major climatic 'hotspot', the Mediterranean sits at the crossroads of these two issues. The precise nature of the relationship between climate and migration has thus become a matter of pressing concern for the Mediterranean. Politically, the approach taken toward so called 'environmental migrants' has ranged from neglect to full military measures, exposing the relative lack of available information regarding the motivations of these environmental migrants. Such clumsy policies could be handled with a more delicate touch, with benefits for the security of states and migrants alike. Resilience theory provides a means of reframing the environmental migrant problem, unpacking the motivations of migrants. By understanding these motivations in terms of resilience theory, states may design more nuanced migration policies, thereby increasing their own security.

Section 2 explores the basis of this crossroads problem, examining the measures taken by Mediterranean states to combat irregular migration and delineating the security concerns related to the collapse of rural communities and the consequent overcrowding of urban centres Section 3 presents resilience theory as a framework through which the factors behind community collapse or success – flexibility, diversity and networks – are made explicit. Section 4 subsequently applies this framework to environmental migration, arguing that migration contributes to the same factors which determine community resilience. Section 5 introduces these idea to the EACH-FOR case studies, using them to demonstrate that the security concerns related to environmental migration are intensified where resilience, as the motivation for migration, is ignored. Section 6 offers a means through which existing migration policies can be extended to meet the true nature of the security challenges posed by environmental migration, while section 7 concludes with some thoughts on embracing the agency of rural communities.

1.1 Defining Migration: International Antipathy

The distinction between refugees and migrants involves both practical and political reasoning, and this is especially true of environmental migrants. The term 'refugee' confers certain obligations and expectations on the global community to provide support and protection. The specifics of developing a working definition of environmental refugees take on political significance in light of the fact that a tiny change in wording can instantly add millions of human beings to the pool of people who are legally entitled to

support, occasionally to the resentment of those who are obliged to support them. The lack of global enthusiasm for refugees is exemplified by the funding granted to the UNHCR, which currently struggles to help the roughly 11 million refugees under its jurisdiction, even with a budget of close to three billion dollars. Adding millions of environmentally displaced persons to that list would dilute scarce resources even further. For this reason, persons displaced by environmental factors are known by many names, including environmental migrants, climate refugees and environmentally displaced persons – all used without an agreed upon definition (Biermann & Boas, 2010, p. 5). Building on the ideas of Bates (2002), the terms can perhaps most intuitively be placed on a spectrum, from least forced (environmental migrants) to most forced (climate refugees). The common factor between these working terms is a reference to people who have been forced to leave their homes due to environmental factors. Since this is the focus of this paper, the nuances in motivations and capabilities will here be eschewed for simplicities sake, in favour of collapsing all of these definitions into a single term: environmental migrants. For the purpose of this paper, this term should be considered to be a placeholder for all environmentally displaced persons, working definitions for whom must still be developed.

A similar debate continues over the use of the terms 'irregular' and 'illegal' migration. Although it refers to migrants who are, technically speaking, living illegally in their destination region, the term 'irregular' migration is preferred to 'illegal' migration. Koser (2005) argues that the term 'illegal' is dismissive of the human rights and generally non-criminal nature of migrants. To refer to them instead as irregular migrants is to preserve a sense of their agency, which in turn is essential in understanding the disparate causes and motivations held by migrants.

Section 2: Climate Migration and Security

A security threat is one which threatens the stability of the state. There are several layers to this problem. The first is simple: conflict causes insecurity. But what causes conflict? Environmental problems, population density, relative income levels, resource availability and sociopolitical fault lines have been identified by Reuveny, Homer-Dixon and others (Reuveny, 2007; Homer-Dixon, 1994) as major conflict triggers, which are difficult to untangle from one another. Reducing the number of potential causes is thus the best bet for maintaining security, which means that preventing overcrowding, as far as possible, is important for security. This thought process has been thoroughly applied to the concept of environmental migration, which is has been securitized both in theory and in policy. However, the idea that migration poses an inherent security threat becomes a self-fulfilling prophecy: when treated as security threats, migrants are unable to gather the resources which would allow them to discharge themselves from the

overcrowding of urban centres This chapter traces the climatic and migration trends in the Mediterranean, arguing that the securitization of environmental migration is – at best – a lost cause, and that the security problem therefore requires a new perspective.

2.1 Climate Change in the Mediterranean: Variability

Drought, land degradation, flooding and other natural disasters have all been linked to the onset of climate change (Rodriguez, Vos, Below & Guha-Sapir, 2009). More disconcerting, however, are the stack of predictions that these trends will only increase in the absence of global mitigation measures. Such broad predictions can be made with reasonable confidence, but to isolate and extrapolate trends within a given global region has proved more difficult. This is especially true of the Mediterranean region, which the IPCC has identified as a global hotspot, prone to dramatic environmental reactions to a changing climate (Diffenbaugh, Pal, Giorgi & Gao, 2007). Predictions of decreased precipitation levels in the Mediterranean (Solomon et al., 2007) are thus accompanied by the warning that the frequency of perturbations – such as droughts – will themselves be subject to increased variability (Nelson, Adger & Brown, 2007). The Mediterranean is a very complex region, and it remains unknown how even small climatic changes will affect regional environmental functions (Diffenbaugh et al., 2007).

The uncertainty associated with precise climatological predictions is accompanied by much greater certainty in the increase of climate-related victims. Despite incomplete records, African statistics show over 14 million victims of drought in 2008 (Rodriquez et al., 2009, p. 16). Such numbers are on the rise, and are expected to soon spread to many other global regions. In the Mediterranean, precipitation levels have already dropped, and desertification has become a growing concern (MEDSEC, 2009). Concurrent with this rise is the increase in environmental refugees – a term first brought into use in 1985 to label the millions of migrants leaving their homes due to land degradation, natural disasters and other environmental factors linked to climate change. Like climate change itself, it is the predictions of future – rather than present – refugees which matter most politically, and have therefore spurred the most debate. Myers' estimate of 200 million environmental refugees by the end of the 21st century is the most widely cited, although it required a great deal of extrapolation (Myers, 2002). Meanwhile, organizations such as Christian Aid prefer estimates of up to one billion (Christian Aid, 2007). The reason for the discrepancy can be traced to the difficulties involved in isolating a single motivational factor – political, economic or environmental – in the case of any given migration. Indeed, a combination of these is almost always at play. Climate change is perhaps best viewed as an amplifying factor in the decision to migrate, which does nothing to lesson the overall size of the tide of migrants. According to the International Organization for Migration (IOM) (2008), there were

roughly 191 million migrants in the world in 2005. The IOM further estimated that 15-20% of those were living illegally within their destination country (Renaud, Bogardi, Dun & Warner, 2007; IOM, 2007).

The question of where these migrants are going is not easily answered, based on available data. Many countries in the developing world do not keep reliable statistics on the number of migrants coming or going from their country (Baldwin-Edwards, 2005). The information available on irregular migrants is even scarcer. Since environmental migration, from rural to urban areas, often occurs within borders, few statistics are kept on this form of migration. However, there is strong evidence to suggest that the prevailing trend in environmental migration has been the move from rural to urban regions (Barrios, Bertinelli & Strobl, 2006; Herrmann & Svarin, 2009). In support of this claim, the data demonstrate that world urban populations are growing dramatically, in relation to rural populations. Indeed, the world's urban population is expected to number more than five billion within the next twenty-five years, meaning that half of the global population will be urban (Clark, 2006, p. 3). This increase reflects three trends: natural population growth, reclassification of previously rural areas, and migration from rural areas; the last of which is the most significant (Barrios et al., 2006, p. 362). In China, 50 to 60 million people migrate to urban areas every year (Wu & Li, 1996, p. 55). The same trends hold for Africa and for the Mediterranean, where environmental problems are the greatest force behind this cycle: “degradation of agricultural land and water scarcity are destroying traditional lifestyles and driving massive urban migration” (MEDSEC, 2009, p. 24). In Bangladesh, environmental hazards have pushed a large percentage of the rural population out of the agricultural sector and into urban centres (Herrmann & Svarin, 2009). In sub-Saharan Africa, rainfall shortages have increased rates of urbanization (Barrios et al., 2006). Environmental pressures are thus expected to place further strain on urban resources through rural to urban migration.

2.2 The Mediterranean: A Crossroads

In the Mediterranean, the International Centre for Migration Policy Development (ICMPD) (2004) recently estimated that between 100,000 and 120,000 irregular migrants traverse the Mediterranean annually (p. 8). Of these, 35,000 come from sub-Saharan Africa, 55,000 from the south and east Mediterranean, and 30,000 from other (mainly Asian and Middle Eastern) countries (ICMPD, 2004, p. 8). The Mediterranean region has thus become something of 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 high profile 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 **(**Bates, 2002). Environmental migrants are thus likely to be poor, and without the means to procure a trip 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 (Baldwin-Edwards, 2008, p. 1457). Within the Mediterranean, the populations of urban centres have increased. Major centres such as Cairo and Istanbul have seen their populations expand enormously within the last fifty years (Demographia, 2010; IMM, 2008).

2.3 Security Problems

The “implied pejorative connotations” (Brana-Shute & Brana-Shute, 1982) of the term 'migrant' are based in the concern that migrants consume limited resources needed by the local population, and there are indeed real security concerns at stake in environmental migration to urban centres: “overcrowding in city centres encourages a degradation of the available urban infrastructure, and ultimately the 'slumification' of inner cities themselves” (Hermann & Svarin, 2009, p. 13). As land stress and water scarcity concentrate populations within urban regions, the resulting destabilization may impact regional, national and international security (OSCE, 2007). Indeed, MEDSEC (2009) warns of the “grave consequences for the political stability of regimes on both sides of the [Mediterranean]” (p. 10), due to its potential for environmental migrant-induced instability:

> If not addressed and resolved, environmental problems – water shortages, land degradation, pollution – can become security threats. In this respect the Mediterranean is one of the world’s most vulnerable areas. Its basic climatic and environmental features, combined with its cultural, geopolitical and economic complexity, have high potential for social and political instability. If the economic disparity between north and south continues to increase and if the impacts of climate change on the region turn out as predicted, the risk of conflict will affect the whole region, perhaps the whole world. (p. 6)

A call to the aid of environmental refugees is therefore not entirely altruistic; there is self-interest involved. The EU's Barcelona Declaration puts it starkly: “Europeans cannot be secure while others in the world live in severe insecurity” (Kaldor, 2004, p. 10). In other words, the environmental problems contained within rural regions of the Mediterranean, if ignored, will not be contained for long. The EU thus holds a vested interest in supporting rural communities throughout Africa and the Middle East. Overcrowded urban centres in Egypt, Morocco and other bordering states hold the smouldering potential for conflict, if migration and climate change continue their steady increase.

The Mediterranean countries, led by the EU, have taken note of these dangers, and responded with an ever-

increasing securitization of climate change and migration, through the implementation of aggressive security policies (Lutterbeck, 2006; Brauch, 2010; Pastore, 2007; Baldwin-Edwards, 2005). Border patrols and surveillance measures have been the principle manifestation of the fight against irregular migration, and the Global Commission on International Migration estimates that 2000 people die every year, attempting to evade Mediterranean security controls. Still, militaristic controls have done little to stem the tide of irregular migration, especially within and across the Mediterranean (Brauch & Spring, 2009). The International Centre for Migration Policy Development (ICMPD) finds that 80,000 irregular migrants per year travel from Libya to Sicily or Malta (ICMPD, 2004). Migrant trafficking networks are able to quickly seek out new security loopholes when an old one closes (Monzini, Pastore & Sciortini, 2004), rendering ineffective controls such as Spain's new 140 million dollar Integrated External Vigilance System for border surveillance. Even setting aside their futility, militaristic reactions to irregular migration ignore the real goals of migrants, and supersede policies which may have a positive effect both on the security of the state, and on the human security of the migrants. Missing from such expenditures are policies which address the root causes of environmental migration.

The security concern is, in fact, two-fold, as overcrowding in the cities is joined by a simultaneous drain from rural areas. A loss of local land knowledge and of agricultural workers further cements the decline in resources available to urban regions, thus amplifying the risk of conflict. Traditionally, technological developments have decreased the percentage of the workforce needed in the agricultural sector, releasing labourers into the manufacturing sectors (Davis & Henderson, 2003, p. 99). This accounts for the low percentage of the workforce in developed countries which is involved in agriculture. The current movement out of the agricultural sector in developing countries mimics this shift from rural to urban, but without the accompanying technological developments: the loss of agricultural workers means a loss in agricultural productivity. The defence of borders does nothing to alleviate the danger posed by this drain on rural resources.

2.4 A Self-Fulfilling Prophecy

The EU has slowly moved toward greater cooperation with the Mediterranean states, but such efforts have manifested so far themselves mainly as attempts to implement strict anti-irregular migration controls in neighbouring countries. Policies in Turkey and Morocco have followed suit in contributing funds to migration surveillance and control programmes (Baldwin-Edwards, 2005). However, the outsourcing of EU irregular migrant security controls to Africa and the Middle East has occurred without an assurance that the human rights of migrants will be respected (SID, 2006). Within Africa as well, the majority of countries

have either no policy regarding migrants, or a policy to reduce them (SID, 2006, p. 18). These figures are part of a general attitude of dismissal toward environmental migrants. Whether subject to active security controls or not, environmental migrants – both transnational and domestic – are considered to pose a security threat. This attitude manifests itself in policies which actively securitize migration, or merely discourage it. Both positions stand in the way of policies which earnestly work to examine the nature of the security risk.

2.5 Reframing Needed

To summarize the problem: the combination of increasing rural to urban migration and the unpredictability of climate change pose a serious risk to security in the Mediterranean. However, current policies which attempt to militarize the Mediterranean are unlikely to create more security for anyone. The security problem is migration from rural to urban areas, due to environmental factors. Climatic research in the Mediterranean, however, suggests that there is no foolproof means of predicting from where these threats will originate. Efforts such as that by the German Advisory Council on Global Change (WBGU) (Fig. 1) and the Development, Concepts and Doctrine Centre (DCDC) to locate climatic hotspots where demographic and environmental concerns converge, have thus been limited to identifying broad regional risk areas based on current population data, without taking into account migration trends. Efforts, in practice, to stem the migration tide have been equally ineffective. At the base of these efforts are fundamental assumptions regarding the nature of migration and the motivations of migrants. The need to reframe these assumptions can no longer be ignored.

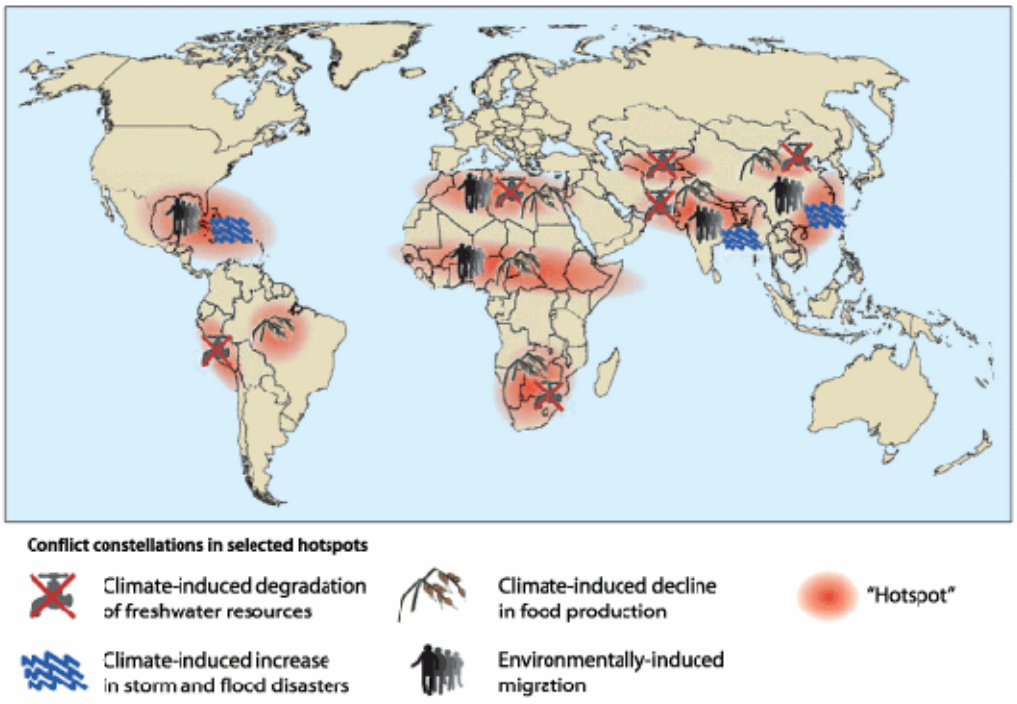

Figure 1

The potential security risk areas created by climate change. No mention is made of migration.
Source: German Advisory Council on Global Change (WBGU)

Section 3: Resilience Theory

The seeds of this potential reframing come from a theory originally developed to explain the varying coping capacities of biological systems. Applied to human systems, resilience theory provides insight on the factors which force migration, but also on those which permit a community to remain where it is. The real security risk can be found in community collapse its prevention is essential to the security of cities, since the flow of rural to urban migrants would quickly become a flood. Where urban regions must bear of weight of the collapse of rural communities, they too may crumble. The standard policy view has been that rural communities are helpless against the effects of climate change, and thus against the possibility of collapse. Through the lens of resilience, however, rural communities are viewed as systems possessing the agency to determine their own fate. To this end, three main resilience strategies can be distilled from the literature: the building of networks, the cultivation of diversity and the maintenance of flexibility. These central three tenets are interrelated and interdependent, forming the backbone of the climate change coping capacity of rural communities. Further, the ecological and human systems are themselves interdependent: for communities at risk of climate change, the stability of the ecological system is essential. This section argues that resilience itself is central for survival against climate change in environmentally-dependent communities.

3.1 Theory

There are two independent variables to be taken into account in measuring the impact of climatic changes on a community. The first is the strength and size of the change, and the second is the relative capacity of the community to cope with the change. Resilience theory focuses on this second variable as the key in determining to what extent an ecosystem will be able to cope with the disturbance without shifting to a qualitatively different state (Galez, Moberg, Downing, Thomalla & Warner, 2008). Resilience theory has recently gained academic traction for its capacity to address the complex and inter-related nature of natural and social systems, which do not always respond to environmental change as expected. Resilience theory abandons the idea of coping capacity as a function of a system's rigid resistance to change. The crucial factor is not whether the system is able to resist a quantitative change, but whether it is able to retain its qualitative structure: a dynamic, rather than static, stability. A resilient system is one which “has the

capacity to withstand shocks and surprises and, if damaged, to rebuild itself" (Huitric et al., 2009, p. 32). This approach, which takes change as the natural state of a system (Nelson et al., 2007), is well-suited to the varied and unpredictable challenges of climate change.

Importantly, resilience theory also takes into account the interdependence of social and ecological resilience. The resilience of one cannot be considered in isolation from the other. Further, one system may compensate for the weakness of another. Thus, in the example of a lake ecosystem in danger of collapse, a social system may respond to the change, correct the imbalances and restore the resilience of the lake (Folke, Hahn, Olsson & Norberg, 2005, p. 444).[1] Conversely, a resource-poor community would benefit greatly from the reliable supply of resources from a resilient ecosystem; or else would face collapse. This interdependence can also be glimpsed within the debate over the causes of climate migration. Few pure climate refugees exist, because some combination of social, political and economic factors is almost always at play. However, land-degradation and other environmental problems are also often at the root of ostensibly social motivations for migration: compounding existing difficulties. The amplifying link between the social and ecological is especially relevant for those who depend on the land for their livelihoods – i.e. those who are most at risk of becoming environmental migrants.

3.2 Diversification

Resilience theory holds up diversification as an essential component to sustaining agricultural livelihoods in the face of production uncertainty (Painter, Sumberg & Price, 1994; Davis, 1996; Brock, 1999; Roncoli, Ingram & Kirshen, 2001). This includes ecological variety, in addition to the diversity of coping mechanisms employed. Biodiversity is essential to the health of an ecosystem, so that damage to one species is unlikely to overcome the entire system. It is in this context that a recent UN report highlights the potential problems associated with low biodiversity in the form of unrotated crops, which lead to soil over-exploitation, while a variety of crops induces much less strain on its environment (Brauch & Spring, 2009, p. 14). Similarly, agrarian communities rely on a diversity of social coping mechanisms, protecting themselves from the potential failure of a single measure. Thus, for example, farming households may allocate several members to engage in off-farm economic activities (Ellis, 1998, p. 15). This is especially true of communities directly dependent on ecosystems for their livelihoods, for which resilience rests not only on biodiversity, but on the diversity of the means through which the biodiversity is managed (Adger, 2000). A single environmental approach may fail against strong shocks, whereas a diversity of strategies

1 This poses the question: what constitutes a system? A system is an integrated whole. Since this paper concerns itself with communities at risk of environmental displacement, and who are, almost by definition, dependent on the environment, such communities will here be considered to form a complete system.

provides a buffer against variability. The International Commission on Climate Change and Development (2008) remarks: “Resilience depends not only on ecological factors such as biodiversity, but also social factors, such as diversity in institutions and knowledge” (Galaz et al., p. 1). Indeed, ecological and human resilience are interdependent in their reliance on diversity.

3.3 Flexibility

The flexibility of response mechanisms is also crucial in determining resilience. Modern agriculture again provides a pertinent example of the forms of inflexible systems which pose a threat to ecological resilience: specialized monocultural systems abandon flexibility in favour of efficiency. These strategies may survive in industrialized regions of the world, but those communities at greatest climatic risk are rarely in a position to make such a trade-off (Smithers & Smit, 1997, p. 138). Attempts to reduce systemic vulnerability through an increase in stability often have the opposite impact, with systems becoming more, rather than less, vulnerable to major environmental events. The reason behind this counter-intuitive effect is that pastoralists in poor regions rely on flexible patterns of resource use as well as flexible social relations (Fernandez-Gimenez 2002) in order to withstand climatic uncertainty. In establishing a static stability, these strategies remove the dynamic stability provided by a flexible response. Modern efficiency being – almost by definition – static, there is little use for it in agrarian societies. These negations serve to demonstrate the importance of the principle of flexibility.

3.4 Networks

In the Canadian Arctic, Berkes and Jolly (2001) found that times of environmental stress brought about an increase in marriages within the Inuit village they studied. This behaviour serves to illustrated the importance of social networks in times of crisis, the expansion of which is important in developing support for communities in vulnerable positions (Connell & Conway, 2001). Resilience theory posits that “the reduction of social vulnerability through the extension and consolidation of social networks, both locally and at national, regional, or international scales, can contribute to increases in ecosystem resilience” (Tompkins & Adger, 2004, p. 2). By strengthening communal ties, the community improves the networks of support which studies have shown to be essential for communities affected by climate change (Tompkins & Adger, 2004, p. 5). In studying the Maasai tribe in Kenya, Mwangi (2003) found that cattle herds were moved more freely between pastures in times of environmental stress, as “relations among members of the *olosha* were generated and sustained” by such practices (p. 37). A literature review by Bodin and Crona (2009) points to three benefits of social networks in improving resilience: the generation of different kinds

of knowledge, the mobilization of key resources for effective governance and a commitment to common rules. Networks bring both flexibility and diversity of knowledge and resources to bear on the issue of environmental resilience.

3.5 Collapse

Resilience may be conceptualized as the capacity to bend without breaking. However, every system has a tipping point. In ecological terms, a system reaches a point of no return, beyond which it descends into a rapid and irreversible collapse. Further, "even if the perturbation is removed or reversed (e.g. by a reduction in nutrient load or reduced fishing pressure), the system may not return to its original state" (Huitric et al., 2009, p. 35). This is useful as an analogy to community collapse: beyond a certain level of migration – despite the resilience-building aid of the migrants – the community can no longer support itself, and its remaining inhabitants will be forced to relocate (Sofer, 1993). Resilience is lost as resources become so scarce that families compete for them: ending the cooperation that was essential in forming resilient networks and managing ecosystems (Kelly & Adger, 2000). A loss of resilience thus implies the collapse of the socio-ecological system, with the implication that human density will increase, due to the irreversible loss of a region of land. The security concern is first that the loss of agricultural land will reduce resources for everyone, and second that the resulting sudden increase in population density will promote conflict between groups in urban areas.

3.6 Resilience Matters for Climate Migration

Resilience theory has become more than a mere academic concept in the context of increasing climate change, as entire communities are forced into unfamiliar regions, increasing the population density in urban centres. Large-scale environmental migration, as opposed to the smaller intrusion presented by lesser numbers of dispatch migrants, brings with it a greater danger of conflict in the receiving region. Small numbers of migrants or seasonal labourers are more easily integrated into a region than entire communities, which may spark fears related to the availability of resources, in addition to possible ethnic tensions (Reuveny, 2007). Large numbers of migrants are not inherent security risks for the receiving area, but have been shown to amplify the chances of conflict. Prominent examples include the arrival of Bangladeshi environmental refugees in India in the 1980s (Homer-Dixon, 1999), U.S. Great Plains migrants in California during the 1930s (Gregory, 1989), and migrants from El Salvador to Honduras in 1969 (Durham, 1979): all of these large-scale environmental migrations led to conflicts and even wars (Reuveny, 2007).

The resilience of communities threatened by climate change is thus directly linked to much wider security concerns surrounding the overcrowding of urban centres. Once a community reaches a tipping point, it is no longer self-sustaining. The threat of systemic collapse thus represents a greater security concern than migration: where the latter generally occurs in the form of a slow trickle, the risk presented by collapse is of a domino effect upon other systems. Resilience strategies are enacted in the day to day activities of rural communities, but these activities are rarely seen through the lens of resilience. Doing so provides a perspective on the ability of communities to control their own fate against climate change. A resilient system is one which remains resistant to the threat of collapse; an increase in one thus provides assurance against the other. In the face of climatic variation, this means that resilient communities will avoid becoming part of the mass rural to urban migration already found throughout the Mediterranean. Further, factors which work to improve the diversity, flexibility and networks of a community will also contribute to its resilience.

Section 4: The Role of Environmental Migration in Resilience-Building

Despite being generally overlooked throughout the literature on resilience, environmental migration has been elsewhere demonstrated to contribute to the same strategies – network building, diversification and flexibility – that form the backbone of resilience theory. Indeed, environmental migration constitutes an extension and continuation of conventional resilience-building strategies. Circular migration contributes to diversification, while remittances add to flexibility, and migrant networks work to extend the depth of networks at home. These are often explicit goals of environmental migrants, demonstrating an awareness of the importance of resilience, and of the intentions behind rural to urban migration. To view migration in terms of resilience theory provides insight into both the actual motivations of environmental migrants, thus providing a reframing of the security risk associated with rural to urban environmental migration. Insofar as community resilience is important in staving off collapse, migration may also be used as a strategy in the same vein.

4.1 Migration Motivations Ignored

Within the literature, environmental migration is largely ignored as a means of increasing community resilience. More often, migration is characterized as resulting from a purely economic decision-making process. Far from being a *homo economicus* – the perfectly rational economic decision-maker, the average environmental migrant often remains at home far beyond the point of economic utility, employing migration as a survival strategy, rather than a purely economic decision. Paradoxically, migration occurs not because

the migrant wishes to leave his home, but because he wishes to stay. Migration is often used as a means to gather the resources necessary to sustain a family or community within its geographical context. This motivation is, however, often dismissed in the literature, in favour of arguments which overlook the cultural – not economic – attachment of migrants to their land. Calls for the institution of property rights in order to provide "an incentive [for farmers] to [...] protect their land from degradation" (Kahn, 2004, p. 610) thus miss the point entirely. Such attitudes prevail in policy as well, leading, in the case of mandatory relocation programs, to inadequate attention being paid to the selection of the resettlement region. In Mozambique, for example, very little consideration was given to the location of the new settlement zone for a community of rural families, leading to conflict between the families and their new neighbours (Stal, 2009). A United Nations University (UNU) (2008) report thus argues that governments would do well do pay attention to the relocation regions, so as to avoid "[pushing people] to move elsewhere where their locally specific knowledge may no longer apply" (Warner, Afifi, Dun, Stal & Schmidl, p. 7). Lacking a specific knowledge of the land, many internally displaced people become environmentally displaced again, due to "their unsustainable agricultural practices in the resettlement areas (Schwartz and Notini, 1995, in Afifi, 2009, p. 12). Geographic context is important for rural communities, which is why many migrants are unwilling to leave their homes, even if greater economic opportunities exist elsewhere.

For marginalized communities, there is an element of danger involved in day to day life. The margin for error in an emergency is slim. These societies adapt to the harsh conditions by practising adaptation; "by manufacturing for themselves a good deal of potent chronic risk mimicking dangers generated in emergencies (Torry, 1984, p. 234). Thus, in the case of an emergency, the difference in actions is quantitative, not qualitative. This phenomenon has been observed in the actions of Northern Sudanese pastoralists, who "developed a great variety of adaptation mechanisms" in order to deal with climatic changes (Meze-Hausken, 2000, p. 17). Migration often occurs as an extension of this philosophy, used even in times where it is economically unnecessary, in order to maintain the culture of wariness which permits these societies to survive. Seasonal migration, in some rural areas, has become part of the culture (Afifi, 2009).

4.2 Context

It is in this context that migration sits; underappreciated and misunderstood by governments and policymakers. Yet migration plays a large role in maintaining the resilience of a community. While resilience can be increased through inputs from outside the system, rural communities have long employed migration as a means to the same. Community members leave, lessening the strain on scarce resources, and

bringing fresh resources back. The strain on the destination region, however, is slight, as migrants return with two things: knowledge and money. Knowledge, as an anti-rival good, does not harm an urban region through its export; that is, consumption by one person does not reduce the amount of knowledge available for others. The export of money, through remittances, is outweighed by the benefits gained from the additional labour.

Resilience Strategies	Resilience Manifested Through Migration
Networks	Migrant Networks
Flexibility	Remittances
Diversification	Circular Migration

4.3 Circular Migration: Diversification

Migrants returning to their communities bring with them social capital. Referring to the connections between both networks and individuals, social capital is a significant contributor toward resilience (Galaz et al., 2008; Bourdieu, 1983), through the diversification of resources available to communities. Return migration creates these connections between the source and destination region, as returning migrants bring with them social capital, in addition to economic capital (Connell & Conway, 2001). In the Caribbean islands, for example, it was young, professionally-trained returnees who were largely responsible for a number of successful environmental initiatives (Conway & Lorah, 1995), diversifying the coping strategies of the community. It is not inevitable that an influx of new knowledge will contribute to resilience, but the fact that returnees already possess a thorough understanding of the local socio-ecological system is likely to help. Further, social capital may be extended to source regions without the physical return of migrants. Evidence from Egypt suggests that networks built by migrants in their host countries prove beneficial to their home countries: “If they extend part of their activity to their country of origin, this results in transferring to said country the benefits of any social capital accumulated abroad” (Fargues, 2009, p. 76). Social capital, as a contributor to diversity strategies of resilience, thus accumulates through the act of

circular migration.

4.4 Remittances: Flexibility

The international importance of remittances cannot be overstated. Many countries depend on migrant remittances as an essential component of national GDP (Gammeltoft, 2002; Hanson, 2009). On a smaller scale, many communities depend equally on the remittances of their migrants for survival. The primary usage of remittances; whether they are invested, or used on non-essential consumption (Bertram, 1986) remains unclear. For the purposes of resilience, however, it is more pertinent that remittances have been shown to increase sustainability and improve land management (Gould, 1994). One likely cause is that monetary inputs provide flexibility in the possibilities open to a family. For example, the reduction of biodiversity through logging may not be necessary if remittance funds enable a family to find more a more sustainable livelihood. However, the importance of remittances is not limited to increased wealth: "remittances and return migrants' contributions to social and cultural capital accumulation strengthen familial and communal networks and ties. They not only help to maintain these institutions but enlarge their social fields of interaction" (Connell & Conway, 2001, p. 53). Indeed, remittances are a primary means through which networks are enlarged and reinforced. They "tie the migrant to the source community" (Conway & Cohen, 1998, p. 33), further empowering the network, and, by extension, increasing resilience (Adger, 2000).

4.5 Migrant Networks: Networks

In their application to resilience theory, networks are not necessarily contained within a single community. Indeed, inter-regional and even international networks can be a supporting factor in local resilience (Folke et al., 2005). A typical example comes from the Polynesian islands, where declining biodiversity has left the socio-ecological system vulnerable to environmental shocks. With local flexibility now limited, the island's adaptive capacity has been augmented by outside help (Nelson et al., 2009). Such supplementation is often delivered, not through formal channels of international aid, but through migrant networks. These links grant access to resources otherwise unavailable to a small network: "Because this type of capital can bring in new and potentially novel information, it can establish strong resource management institutions and thereby contribute to group resilience" (Galvin, 2009, p. 192). The networks established through migration thus constitute an expansion of the diversity of resources available to a socio-ecological system. The difference is quantitative, not qualitative: this diversification operates according to the same principles as conventional diversification. Just as marriages are used to increase the breadth of knowledge and resources available to a

community, so migrants are able to expand a community's reach.

4.6 Migration Increases Resilience

Networks, remittances and return migration constitute the three paths through which migration is used as means of increasing resilience. Where they are in place, migration does not automatically imply a security risk. Rather, it is a quantitatively greater resilience-building measure. Migration encompasses the same main resilience-building strategies – networks, diversification and flexibility – as are employed elsewhere. It is thus an extension of existing resilience strategies. Where migration contributes to resilience, fewer migrants are forced in urban areas, thus decreasing the chances of conflict. Those who stay home reduce conflict by permitting the return migration of those who have already migrated, and by looking after community members who would otherwise contribute to the overcrowding of a city. This facet of migration – as a means of increasing source resilience – is often ignored by governments. The apparent inevitability of migration overlooks resilience in the source region, focusing instead on the potential conflict within the destination region.

Section 5: EACH-FOR Case Studies

The UN EACH-FOR case studies bring several trends to light, through interviews in twenty-three countries, predominantly in Africa. First, environmental factors have weighed heavily in the decision-making process of potential migrants. Further, where environmental migration does occur, it is often from rural to urban areas. Morocco, Egypt and Turkey illustrate both the security problems created in destination regions – generally urban centres – and that the source of the migration is often environmental problems at home. Understanding the migration described in the case studies in terms of resilience presents a different perspective on the motivations of the environmental migrants in the interviews. The stated desires of the interviewees indicate, moreover, that they would return to their homes if certain environmental conditions were met. The case studies thus demonstrate firstly that urban migrants seek the means to increase resilience, and secondly that, so long as they fail to achieve these means, migrants become part of the larger problem of overcrowding. Standing in the way of these measures, however, are reactions of indifference from policy makers – part of the larger, prevailing view of environmental migrants as a security threat. The case studies show that the neglect of environmental migrants makes them more likely to become part of the security problem of urban overcrowding.

5.1 Context: Lack of Empirical Data

The empirical evidence surrounding environmental migration is scarce. Irregular migration – since it occurs illegally – is generally measured only in estimates, if at all. Within the Mediterranean, hard numbers are not kept by many states, leaving interviews as the best source of information regarding the motivations and intentions of environmental migrants (SID, 2006). However, these generally present too small a sample size for generalizations to national or regional motivations of migrants (Brauch & Spring, 2009, p. 45). That such migration often occurs within borders makes reliable statistic-keeping all the more difficult (Hanson, 2009). As it stands, the UN EACH-FOR case studies represent the first attempt at a widespread study of these motivations, providing insight into the motivations of migrants, and operationalizing the theory that environmental migrants are met with no less antipathy when they do not cross borders.

5.2 Resilience as an Explicit Goal of Migration

It matters whether the resilience-building efforts of migrants are merely incidental to the act of migration. If socio-ecological resilience is an explicit goal of migration, then enabling and aiding this process will contribute to the resilience of source regions. If not, then policy prescriptions that aim to increase resilience cannot rely on local migrants to make further contributions to the effort. However, migrants, regardless of their personal desires, understand the goal of their migration to be resilience. This can be seen through the stated indifference from remitters to Togo, who expressed indifference regarding the specific use of the remittances they sent home. It was sufficient to have 'done one's duty', thereby maintaining enough social capital to enable a possible return migration (Vete, 1995; Connell & Conway, 2001). Such indifference is consistent with evidence that the decision to migrate is rarely made alone: more often the sending off of an oldest son or father constitutes a well-considered strategy of family risk spreading, and an important aspect of social stability (Adger, 2000). Referred to as 'dispatch migration', families send individual members away to a foreign region to diversify their income, without resorting to the relocation of the entire family (Bates, 2002; Henry, Schoumaker & Beauchemin, 2004). In times of emergency, however, the greatest remittances are sent back to families at greatest economic risk. As Lucas and Stark (1985) explain: “This is precisely the response one should expect if households allocate members to urban migration in order to insure against adopting risky asset portfolios at home” (p. 912).

Yet remittances alone to do not suffice to show that resilience is the goal of migration. Lucas and Stark (1985) explain again: “In the end one cannot probe whether the true motive is one of caring or more selfishly wishing to enhance prestige by being perceived as caring” (p. 904). Hence the importance of the case studies in parsing motivations. Whether the desire and intent to return home underlies the actions of

migrants sending remittances home from abroad remains unclear within quantitative remittance data. This desire, however, can be seen in the EACH-FOR case studies, wherein an attachment to one's land is a prevailing theme. The implication of this attachment, according to Henry et. al., (2004) for migration is that "people continue to maintain strong links with their place of origin" (p. 428). Corroborating this finding, researchers in Ghana found that "at least one 'strong man' has to be at home to farm the ancestral land, look after the family house and assume the position of 'yir-sob' (head of the house)" (van der Geest, 2009, p. 10). One Mozambican interviewee describes the objection as follows: "moving destroys culture, social networks and rips families apart" (Stal, 2009, p. 26). These motivations are reflected in the case study interviews, demonstrating that the intention to return often remains with migrants in urban centres.

5.3 Morocco

The case study in Morocco found that people who left their homes to look for work in other regions did so with the desire and intention of returning to their home. In a particularly revealing statement, one villager explained: "According to the worsening degradation, people leave to look for additional revenue in the hope of going back to take up their normal life" (Hamza, Faskaoui & Fermin, 2009, p. 23). That a life in the source community is perceived as normal implies that those parts of one's life spent abroad in search of revenues do not constitute a genuine existence. Further, the interviewees expressed the importance of leaving at least one family member behind, as he or she must stay to look after the family house, which remains their only true home (Hamza et al., 2009, p. 27). Indeed, the inhabitants of one community, who could no longer support themselves on their land, refused to sell any of it after their departure (Hamza et al., 2009, p. 24). Another villager declared: "selling one's land is shameful" (Hamza et al., 2009, p. 24). To migrate has become an acceptable means of supporting a community (e.g. adding resilience), but it is done with the full intention of returning. Lacking the capacity to make the structural changes necessary to facilitate a return, migrants are reduced to "waiting to see things return to how they used to be" (Hamza et al., 2009, p. 32), so that they may themselves return.

5.4 Egypt

Many Egyptian interviewees, having been forced from their homes by environmental degradation, expressed a strong desire to return, "if the conditions in the original homes would improve" (Afifi, 2009, p. 27). Clues as to the motivations of such migrants come from those who have thus far resisted environmental migration. One interviewee in Upper-Egypt explains, in response to soil degradation: "I cannot leave my land. I have inherited this land from my father long time ago, and cannot just leave it" (Afifi, 2009, p. 25).

Interviewees were, overall, unwilling to leave unless they had no other options to support themselves. Migration thus constitutes a strategy of last resort to continue what a Moroccan migrant termed a “normal life”. Where economic opportunities do not present themselves in the destination region, many migrants prefer – all things being equal – to return home (Afifi, 2009, p. 23) if they are unable to save money for a successful return later: “I did not get any economic benefits from living here [in Cairo]. The money that I get from my job I spend on daily stuff to survive [...]. I think I would like to go back to Kharga” (Afifi, 2009, p. 22). Indeed, most of the migrants interviewed were seriously considering a return to their home towns, in the absence of savings-building opportunities and due to environmental problems (Afifi, 2009, p. 23). The “emotional attachment” (Afifi, 2009, p. 24) felt by migrants and non-migrants alike, motivates them to stay as long as possible, and where migration is necessary, to return as soon as improved environmental conditions, or the money to live through them, become available.

5.5 Turkey

In Turkey, the case study focused on the former inhabitants of the district of Suruç. Having migrated due to drought, many had resorted to seasonal agricultural work “in order to support their families back home” (Kadirbeyoglu, 2009, p. 28). Facing discrimination in Istanbul, many interviewees wish to go back to Suruç if the region is provided with water from a nearby dam (Kadirbeyoglu, 2009, p. 30). Until this drought-averting condition is not met, the former residents of Suruç will have no choice but to work elsewhere, despite their desire to return. Thus, rural migrants have begun to congregate in overcrowded cities, where pollution has become a major problem (Kadirbeyoglu, 2009). In a separate region, few of the villagers forced to leave their homes due to the building of a nearby dam were happy in their relocation region. In both cases, the desired return was impeded by a lack of resources.

5.6 Becoming Part of the Problem

That many of the migrants have not returned to their homes is closely tied to their reasons for migrating in the first place. Despite finding the conditions “humiliating,” one migrant remained in Cairo because he was forced to spend all of his income on daily survival, leaving nothing to bring home (Afifi, 2009, p. 22). Researchers found that most of the interviewees in Cairo were suffering from environmental problems (Afifi, 2009, p. 23), which also limited their capacity to consolidate resources. Flooding in Turkey forced many rural villagers into the city, where their presence “exacerbated the [existing] service provision problems” (Kadirbeyoglu, 2009, p. 23). The greatest difficulty faced by Turkish interviewees was in integration into urban societies. The hostility of their host environment inhibited efforts to return home.

Indeed, all three case studies interview migrants facing environmental problems in their "real" homes, but lacking the resources to address those. Migration to urban centres in order to accumulate resources (e.g. money) was a common solution, but many of the interviewees found that conditions for migrants were so bad that they were largely unable to save money to help their families at home. The case studies demonstrate, in sum, that the prevailing attitudes toward environmental migrants hindered the efforts of those migrants to return to their homes.

Section 6: Promoting Resilience through Policy

Once the issue of environmental migration has been reframed as an issue of resilience, the obvious next step is policy reform. The threat of community collapse presents the world with a decentralized security challenge. The accompanying unpredictability is especially immediate in the Mediterranean, where climate change promises a high degree of variability. In this context, it is important that migration be framed not as a symptom of collapse, but as a mitigating effort against it. If source regions work to create circular migration programs and promote the sending of remittances and the establishment of strong networks, they may alleviate the security risk of mass rural to urban migration before it appears. Further, system resilience itself is not static: it can be increased and improved by contributions from outside itself. States are thus far from helpless against collapse: measures which increase the access of rural communities to networks and strengthen their systemic flexibility and diversity may well contribute to the prevention of system collapse. The EU may offer resilience-building measures to those migrants already within its borders, and irregular migration partnerships to other Mediterranean states; thus acting to prevent rural community collapse which would further inundate urban regions. This decentralized approach to security reflects the nature of the challenge posed by climate change: one of uncertain and unpredictable effects. This section examines the policy options which may be explored, based on this analysis.

6.1 Policy Context

The Human Security Doctrine for Europe (2003) suggested for the first time that "human rather than nation-state security should be at the heart of European policy" (Brauch & Spring, 2009, p. 12). The reason for this shift can be partly seen in the threat posed by climate change, which is both trans-national and decentralized. The EU has responded by engaging in preventative cooperation (Bremberg, Driss, Horst, Lecha & Werenfels, 2009) and other decentralized security measures. These methods, however, are used for legal migrants, but never for environmental migrants, who, if they cross international borders, often do so illegally (Hanson, 2009). Such partnership programmes as have been created, for example the Euro-African

Learning Programme and the Euro-African Circuits Programme, have been aimed exclusively at professional and educated Africans. Indeed, irregular migrants, if they are thought of at all, tend to be lumped together as a group of people who present a collective security threat. This dismissal can be traced to the idea that there is no resilience involved in migration; thus, the receiving area has little incentive, from a security standpoint, to allow irregular migration. From this standpoint, an influx of migrants represents nothing more than a net population increase. Having embraced the decentralized nature of the problem, states have not recognized that irregular migrants can be part of the necessarily decentralized solution. By restricting migrant access to resources within urban areas, states have inadvertently impeded their own efforts to stem the tide of rural to urban migrants.

6.2 Remittances

Communities are able to create their own resilience, within limits, but, as the inclusion of migration in resilience building efforts demonstrates, resilience can also come from outside inputs. Remittances, meanwhile, remain the outward face of resilience; the most obvious sign that migrants retain a connection to their homes. Within the MENA region, remittance totals of several countries actually exceed foreign direct investments (Baldwin-Edwards, 2005, p. 23). Insofar as environmental migrants are successful in sending remittances to their families, they also reduce the likelihood that collapse will bring many more rural migrants into urban areas. Remittances therefore play a large role in maintaining the well-being of migrants and states. The promotion of these is thus in the self-interest of both. The nature of environmental migration as a primarily intranational enterprise, suggests that more attention should be paid to the sending of remittances within borders.

6.3 Networks

In 1998, The Euro-Mediterranean Partnership (EMP) launched its pilot programme for the “Creation of a Euro-Mediterranean System of Prevention, Mitigation and Management of Natural and Man-made Disasters”. The project brought together civil protection experts to exchange information, with the goal of promoting the creation of networks between practitioners (Courela, 2004, p. 13-14). Such networks, it was hoped, would be beneficial to all involved, as information exchanges among experts are recognized to have a positive effect on the development of new ideas; the pooling of resources may be used to create something greater. The theory behind migration networks is the same, yet no conference for irregular migrants is forthcoming. Migration networks work to provide resources for source regions, and also for new migrants. The latter function is especially important in ensuring that migrants are able to locate the resources they

need, not only to offset the societal drain represented by swelling slum regions, but also to send further resilience-building resources back home, thus easing the need for more migrants, and lessening the strain on the host region.

6.4 Circular Migration

In a 2005 communication, The European Commission presented circular migration as a mean through which brain drain may be used to “foster skill transfers and mitigate brain drain” (European Commission COM 248, 2007). The state is not helpless in this matter; evidence has shown that state policies may increase or decrease circular migration. Fargues (2009) highlights the fact that “a legal institutional setting which favours frequent coming and going, *ceteris paribus*, will incentivise short-duration stays” (p. 396). The logic behind this principle is simply that migrants who would arrive anyway, do not feel compelled to stay. This may have the effect of reducing urban population pressure, something which the government of Egypt has resorted to paying citizens to move to desert areas in order to improve (Warner, 2009, p. 21). The desire of environmental migrants to return to their homes reduces the need for such incentives. The EACH-FOR Synthesis Report calls for such a response, arguing that “seasonal migration is a viable coping strategy in response to environmental change or degradation for many households, efforts should be made to help migrants find viable work opportunities” (Vag, 2009, p. 5). Rural migration may further be conceptualized as a form of agricultural brain drain, whereby farming knowledge and skills are depleted from rural areas, without replacement. The loss of agricultural productivity in regions which provide for urban centres will only exacerbate the resource-availability problems found there. The Repatriation of rural migrants may well be as important as that of skilled workers.

6.5 Pre-emptive Measures

There are two main ways into the enabling of resilience: pre-emptive and reactive. The latter includes circular migration and the resources allocated to rural migrants within urban areas. In order to achieve the former, states may identify environmental 'hotspots', maps of which have been compiled by multiple sources (see Figure 1). Further monitoring of the potential tipping points in these regions would allow for the precautionary allocation of resilience-building resources (Boano, Zetter & Morris, 2008). The key is enabling. Given the resources, communities will work to increase their own resilience. The resilience theory of community survival flies in the face of portrayals of rural community members as helpless and without agency. Boano et al. (2008):

> Concepts and practices of resilience and adaptation challenge the deterministic notion of vulnerable groups being passive victims. Rather, they highlight people's skills, strategic responses, and agency [...] in relation to climate change in which migration is only one of the possible adaptation measures. (p. 18)

The recognition of environmental migrant agency is central to the implementation of measures which react to these independent and assertive motivations, and not to a hollow and dismissive strawman figure of the quintessential irregular migrant. Positive signs of an acceptance of resilience have shone through from recent Mediterranean dialogues, as the policy brief which emerged from the 2006 Joint International Conference: "Desertification and the International Policy Imperative," declared that "engagement and enabling of communities leading to effective stewardship should remain at the heart of policy formulation" (Adeel et al., 2006, p. 6). Enthusiasm for engagement and a respect for the geographically specific knowledge of rural communities has been gaining steam in academic and political circles. Understanding that migration is an extension of resilience is the next step in moving toward mutually beneficial policies for migrants, rural communities and national security.

6.6 Overview of Policy Recommendations and a Call for Further Research

The call for more empirical research on environmental migrants has by now grown to a deafening din within the academic community. This paper offers, a suggestion for policy makers that the questions asked be reframed in recognition of this emerging knowledge: the policy challenge is not for new policies so much as an extension of existing policies to cover a larger group of migrants. Mediterranean states, and the EU in particular, have recognized the importance of sharing expertise and providing resources to skilled migrants, but have treated irregular migrants in a qualitatively different manner. That a similar level of diversity and a similar mix of motivations may well exist within the mass of irregular migrants has not been properly acknowledged in Mediterranean migration policy. In viewing the issue of irregular migration from the standpoint of resilience, states may find that the security problem is not so much the presence of migrants, but the neglect of the same. The need for further research remains, of course. Much more research is needed on the motivations and capabilities of environmental migrants, and hard data on the number of environmental migrants who return to rural communities is sorely lacking. This paper has not presented new answers on any of these topics, but rather called for the re-posing of old questions.

Section 7: Conclusion

Resilience is widely recognized as one of the keys to community survival in the face of unpredictable climatic change. The extent of this resilience, however, remains largely unexplored. Through the actions of

rural communities exposed to environmental risk factors, it becomes clear that these communities do not view resilience as an exclusively internal phenomenon. Indeed, migration constitutes just one of the resilience-building measures of rural communities. Resilience, however, may be encouraged from outside. The difficulties involved in identifying at-risk communities are mitigated by the fact that migrants often cluster in urban areas. Embracing this movement can reduce the potential for community collapse, which in turn would bring not a trickle of environmental migrants, but a flood.

The security discourse surrounding irregular environmental migration obscures the fact that not all forms of irregular migration occur with the same motivations and goals in mind. This paper has presented resilience building as an alternative motivation to the presumed purely economic considerations of the migrant: *homo economicus* is not a sufficient explanation for the intentions of the legal migrants, nor does it capture the true aims of those poorer migrants, dispatched from their homes due to environmental factors. Resilience embraces the agency of rural communities in coping with climate change – the same agency that is assumed to belong to other, more conventional migrants.

With increasing climate change on the horizon, the number of environmental migrants on the move within the Mediterranean is already on the rise. Of those, many will find themselves in already overcrowded, and potentially overwhelmed urban centres. The potential for conflict, which may then spill over into neighbouring regions, is high. It is counter-intuitive to think that relief may come from embracing these new migrants, but by doing so, states may find that they ease their own security problems: persecuted and neglected migrants lack the means to return home. Environmental migrants are not an inherent security threat, but by treating them as such, the security concerns become a self-fulfilling prophecy.

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