

## **Workshop on Climate Change, Human Security, and Democracy**

Moulay Hicham Foundation  
Skhirat, Morocco, Sept. 10-11, 2011

Miriam R. Lowi

In discussing the social and political effects of climate change in North Africa specifically, it's important, I think, to first make some comments that relate to geography and demography, because both impact climate as well as politics and social change.

What's included in North Africa? Is it the entire land mass north of the Sahara? If we take this definition, we run into some important distinctions since neither Libya nor Egypt are shielded by high mountains (as are Morocco, Tunisia, and Algeria) which, to a degree, can act as a barrier to environmental changes emanating either from the south or from the north; moreover, Egypt has some unique characteristics that set it off from the rest of the region. If, however, we consider North Africa to be constituted by the Maghreb Union countries of Morocco, Algeria, Tunisia and Libya, then we have to determine whether Mauritania is included in the Union? But what, then, about Egypt? Egypt is distinct from the other countries of the region in particular ways. For example, its population – of about 70 million, is roughly that of the other 5 countries combined. Moreover, the Nile River, that rises in Lake Victoria and extends northward through 9 countries before reaching Egypt's southern border with Sudan and then flows from there to the Mediterranean coastline – the full extent of the country, ties Egypt's future to East Africa. This is very important to ponder, but at the same time, we can better understand the challenges of the Maghreb by considering the lessons to be learnt from the Egyptian experience.

The Maghreb Union is separated from the Sahel (the zone that is the transition between the Sahara in the north and the African savannas in the south, and includes parts of Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal and Sudan) by the Sahara, although Mauritania has a frontier with Mali and goes all the way to the Senegal River. As for Libya, it extends to countries of the Sahel (eg Niger) and countries of central Africa. What's significant about location for the purposes of any discussion of climate change is that the Sahel is experiencing increasing dessication and aridity, and this condition is creeping northward, affecting the countries north of the Sahara as well. The northern plains of Algeria and Morocco, for example, are shielded from this phenomenon of climate change by virtue of the Atlas Mountain range that forms a natural barrier. But south of the Atlas, in Algeria especially, and also in the Western Sahara (claimed by Morocco), one finds increasing dessication and aridity. Mountains in Morocco shield the plains of the region north of the Atlas, but in Algeria encroachment of aridity moves far northward, sparing really only the Mediterranean coastline. While Tunisia also is affected, it has a longstanding tradition of arid land agricultural activity and as a result, it has shown more resilience to climate change... As for Libya, most of it is desert apart from localized plains and plateaus along the

Mediterranean coast... .... As for the Mediterranean coast itself, the rising sea level and the increased salinity of the water prove to be important new developments as well. In short, therefore, climate change affects agriculture and livestock output, but also maritime resources. This being the case, climate change impacts food security in these countries, with considerable effect on social and political life, as well. Consider a country like Algeria: while it was 100% self sufficient in food production at independence in 1962, it now imports at least 70% of its food. Obviously it's able to do so because it has oil, but if one considers a future with less oil or without oil, and the relative neglect over time to the agricultural sector, the problems facing Algeria are severe.

But the other important factor to add to the equation is demographic growth: that is to say, not only are water, livestock, forest cover, agricultural land and productivity and fishstocks threatened, but also, populations in the region are growing consistently. Between 1960 and now, the population of this region (excluding Egypt) has almost doubled – from roughly 35 million to about 80 million today.

The projections are that it will increase by one-half to two-thirds between now and 2025. [the entire MENA from 300 million today to 500 million by 2025]... The situation is all the more threatening when severe threats to resources and sources of livelihood are combined with high population growth....

Certainly, the phenomenon of persistent migration northward from the Sahel region can be understood as a response to desertification (climate change) and its impact on the lives and livelihoods of peoples. North Africa today is a way-station en route to Europe. ... These are populations chased by famine and scarcity... And migrants from south of the Sahara are large enough in number to affect not only the relations among the states of the North Africa region, but also the relations between the region and Europe... Remember that in recent months Qaddafi was threatening Europe with allowing sub-Saharan Africans to 'invade' Europe... He would not stop the flow.... Let me remind you that Europe has expected North African governments to police migration routes and stem the flow. Hence, environment- induced migration impacts international relations, as well...

### **Case of Algeria:**

In an effort to address the desertification from the south, the Algerian regime began speaking a couple of decades ago about a plan to create a 'green barrier' – involving the planting of trees and shrubs supposed to be resistant to aridity. This plan, which has recently been taken up by international organizations in conjunction with the 11 countries located along the southern border of the Sahara and is now called the Great Green Wall, is aimed at both limiting the desertification of the Sahel zone and acting as a catalyst for a multifaceted international economic and environmental program. As implemented though by the Algerians, it was largely unsuccessful for two important reasons that reflect the challenges to environmental management in the MENA: first and foremost, the project was ill-conceived because it has systematically excluded the communities of the south – those who would be directly impacted -- from planning and implementation. Moreover, the Tuareg, who, along with various tribes, populate the south, consider the land to be tribal land, belonging

to them and for their sole use. Despite the arrival of the Algerian state with all its money, the populations of the south move about and make use of the newly planted trees and shrubs for their own purposes..... They were not included in the development of this project, nor in its implementation. This general trend functions as a major impediment to addressing climate change effectively in MENA countries: the failure to integrate local communities – the resource users – in finding and implementing solutions to environmental change and environmental degradation.

In any event, Algeria, with its primary focus on the oil sector and the investment of oil rents principally in heavy industrialization (until early 1980s) and building up the military and security apparatus, has systematically neglected agriculture, but also infrastructural development. The neglect of agriculture has had several important negative effects: first, the country could no longer feed itself and now imports about 75% of its food needs; second, with little work and sources of livelihood in the countryside, there has been a huge migration to the cities, overwhelming the urban fabric and causing tremendous strain on infrastructure: for example, the water supply – the capacity to ‘feed’ the overgrown cities – has been exhausted, and there are regular cuts in electricity, as well...

In short, though, as long as the hydrocarbon sector dominates to the extent it has to date, attention to such things as conservation of land and resources, management of water supply and distribution, etcetera will remain of secondary importance, if not neglected.....

Besides, this is a regime that – despite the populist rhetoric – in fact pays little attention to popular demands, and has no interest in encouraging local participation in addressing local challenges....

As for international organizations, there is little interest in working with them unless there is some benefit to be gained and only if the i.o. has some leverage on its oil endowment; besides, for the most part, the Algerian regime jealously guards its concerns and shuns cooperation beyond its borders (and provides safe haven on ‘humanitarian grounds’ to Qaddafi’s family!!!)

### **Case of Morocco:**

Unlike Algeria, the country has no oil, and it has been overburdened by a struggle to gain control over the Western Sahara since 1975, which is part of its rivalry with Algeria. With regard to food production, there has been a major effort at putting roughly 2 million hectares of arable land under modern irrigation; for that, there has been a lot of attention to building big dams and promoting intensive, modernized agriculture destined largely for export while responding to local demand, as well.

The politics of the big dams and of modernized, irrigated agriculture, though, has had two principle effects that relate to the themes we’re treating here today. First, the focus on major irrigation schemes has meant that most other land including pastureland, rainfed agricultural land, mountains and forests, have been largely neglected, even though they constitute the majority of the land in the country. The result has been that these lands are losing more and more of their vegetation, and are threatened by erosion, salinity, and desertification. Second, the focus on modernized, irrigated agriculture – largely for export -- has resulted in the extreme

concentration of private property in newly irrigated zones and the emergence of a class of big landowners who monopolize vast revenues from modern irrigated lands, while wheat production – the mainstay of the Moroccan diet, and that grows in the northeast, without irrigation water – is receding . In fact, the Moroccan state has been forced to mobilize capital to import more wheat (roughly 40% of need, and other food items) and subsidize staple items for the majority of the population... And so, we're left with one very rich sector, and the majority of the population – who live in rural or semi-rural areas, are left out ....

It is likely that the failure to implement major policies in cooperation with neighbors (eg Algeria – the trade of food and manufactured goods for oil and natural gas, for example,) and with international organisations, could mean that climate change effects will ultimately be disastrous...

The “politics of the dams”.... Intensive modernized agric mostly destined for export but responding to local demand as well...

Just as an aside,..... it is likely that the failure to implement major policies in cooperation with neighbors (eg between Morocco and Algeria – the trade of food and manufactured goods for oil and natural gas, for example,) and with international organisations, could mean that climate change effects will ultimately be disastrous... [note that Morocco imports 100% of its oil and gas....]

On other hand, all over North Africa, you have a kind of bipolar environment with still fairly large rural sectors, but an unprecedentedly large population in big urban sprawls on the coast. These growing populations – many of whom have been going into the streets these past months -- are demanding water, sewage, industry, etc.... Therefore, it is likely that an increasing share of an already severely strained water supply will go into hygiene and other urban water -related needs, rather than to agriculture and related sectors.... and so, the rural population will be compromised yet further....[note massive urbanization; but also craziest – most unsustainable -- use of water: Libya invested in that Great Man Made River that was a huge disaster – particular case of oil rent destroying the environment....]

No doubt, de-salination of sea water is a possibility for those who have money, but it doesn't resolve problems related to environmental management and conservation..... **Also, desalination – just like the big dams and irrigation schemes -- reflects the preference across the region for supply-side solutions to resource scarcity, as opposed to demand-management solutions.... The preference for big, sophisticated, ideologically-laden, elite-driven schemes to increase supply reflects the preference for technology that remains in the hands of the elite and supposedly reflects modernity; but this preference also reflects the persistent discomfort with – and systematic rejection of -- solutions that engage the community of users, and that necessarily require attention to issues of justice, equity, property rights ..... This is a serious matter: this overwhelming preference functions as a formidable (institutional, social and political) impediment to successful environmental management.**

**Characteristically there is very little in any political party, union, or public opinion organisation about the environment in North Africa.... For time being still very little organised interest in these issues..... hardly any mention in political campaigns about water conservation; there is talk about building roads and creating jobs and bringing irrigation water, but pollution, erosion, etc are not politically mobilizing topics for now....**

**Moreover governments nod to international organizations either to ward them off or else to gain a special advantage from them. In Morocco, for example, you do have environmental policies related to, for example, struggle against erosion, water conservation, etc , but it appears that they are mostly international money grabbing ventures, aimed at getting stuff from international organisations, rather than serious concerns with sustainable development.**

No doubt , environmental changes are very real and the predictions for the future are worrisome, and demand serious attention. In closing, I would like to perhaps go out on a limb and think out loud a bit more about the Arab uprisings these past months, how to understand them differently, and in ways that include the environment, and in the hope to respond to the demands of the people responsibly, respectfully, and effectively.

According to several interpretations of Islamic doctrine, natural resources, in general, constitute “public wealth” or “communal wealth” [*tharwa ‘umumiyya*], to be managed and exploited by the governing authorities for the good of the community. Different schools of Islamic law devote attention to public wealth and its proper disbursement by the state, for the ‘common good’ (*al-maslaha al-‘amma*). However, the application of Islamic law regarding public wealth varies considerably across the Muslim world: some governments have adopted the notion of the community’s commonweal, while others have remained deliberately silent on Islam’s directives about the leadership’s responsibilities regarding the allocation and utilization of public wealth. There are, to be sure, disparate, contrasting, and competing views on the subject. Moreover, there are raging debates today, in the Arab media, as well as in Islamist publications, precisely about the exploitation and development of natural resources *qua* public wealth. Muslim publics criticize their rulers for failing to make ethical choices relative not just to the distribution of oil wealth and other resources, but to development generally.

Indeed, part of the failure of all these regimes, I would argue, is that when formulating their agendas, they have neglected to acknowledge a relationship between the country’s resources and the Muslim notion of community [*umma*]. That is to say, political leaders have failed to integrate *Shari’a* norms of social justice and redistribution – manifested by, for example, providing charity and, by extension, alleviating inequality, and imposing limits to property -- into their development

programs. As a result, Muslim populations in some countries of the region could neither identify with, nor envision themselves as having a meaningful stake in, their government's development programs. This would emerge as a major source of social strife. Hence, reconciling the tension between Islamic norms (of solidarity, reciprocity, redistribution) and objectives that are particular to the nation-state (as in the development of the natural resource endowment), and promoting a negotiated understanding of the 'common good' (*al-maslaha al-'amma*) may contribute to alleviating a source of instability in the region.