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Food Security's Unholy Trinity – The Case of the Sahel

The Sahel region of Sub-Saharan Africa is becoming more unstable. Our partners at the United Nations University (UNU) warn that because of climate change, environmental degradation and migration, increased food insecurity across this fragile region will only make matters worse.

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Yesterday we broadly outlined how climate change, environmental degradation and migration continue to have a negative impact on global food security. This hardship is being felt both in the economically hard-hit developed world and, worse yet, in the developing world. Indeed, the problem of food insecurity is particularly acute throughout the Sahel portion of Sub-Saharan Africa, a geographical region that has long been the focus of international efforts to combat the dual threat posed by poverty and starvation.

To explore this particular area of vulnerability further, today we present some of the key findings from [Livelihood Security: Climate Change, Migration and Conflict in the Sahel](#), a report commissioned in 2011 by the United Nations Environment Programme (UNEP), the International Organization for Migration (IOM) and our partners at the United Nations University (UNU). More specifically, *Livelihood Security* analyses the historical climate trends across the 17 countries that make up the Sahel region in order to understand how these trends have both led to and exacerbated the area's growing social, economic and political instability.

A Growing Problem

Stretching from the borderlands between Senegal and Mauritania to northern Eritrea, the Sahel region is a 1,000 km belt separating the Sahara desert from the rest of Africa. Its population has grown rapidly since the 1960s (an estimated 50 million people are currently living across the region) despite patterns of recurring drought and an increase of 1°C in the area's mean temperature over the past 40 years.

The frequency and severity of droughts has also, on occasion, been matched by episodes of severe flooding, which have seemingly grown worse with each incident. The problem has been particularly acute in the westernmost Sahelian states, where 54 per cent of the population is thought to have experienced five or more periods of major flooding since 1985. To further complicate matters, it has also been suggested that the pattern of increased drought and torrential rain may be complemented

with a one meter rise in sea-levels, which could affect the livelihoods of over 3 million people living in the coastal parts of the region.

However, the growing vulnerability of Sahelian lives is not only attributable to the growing irregularity of the weather, but also to the uncertain timing of rainfall and droughts. In turn, such climatic irregularity and uncertainty has resulted in a general decrease in agricultural yields, damage to traditional grazing land, and the shrinking of important water sources, particularly in the landlocked countries of Burkina Faso, Chad, Mali and Niger.

These climate-related problems are troublesome, we might further add, because they compound other existing challenges. For example, because the above four land-locked states traditionally produce the majority of the Sahel's cereal crops, lower yields translate to fewer exports to their neighbors. Second, the countries in the region tend to have minimal government resources and insufficient funds to develop their resource bases. Finally, unequal land distribution and poorly developed markets and infrastructure tend to interact with and compound the other problems we have just identified.

The Past Complicates the Present

After reviewing the above climatic and non-climatic factors that are increasingly shaping the lives of those who live in the Sahel, *Livelihood Security* goes on to consider their impact on conflict and migration. In the latter case, traditional pastoral migratory patterns have increasingly been replaced by a more permanent shift towards the southern portion of the Sahel and beyond, primarily as a result of environmental damage caused by climate-related disasters. In 2007, for example, northern Ghana experienced severe flooding that destroyed approximately 260,000 metric tonnes of crops and precipitated the displacement of over 330,000 people. The damage to local infrastructure also prompted farmers to either migrate to other farming regions in the south or seek new economic opportunities altogether. Of those that eventually returned, many found the land barren and in need of cultivation. This resulted in further compromising food security in a region that was already grappling with chronic poverty and malnutrition.

Migration patterns such as the one just described have also contributed to increased competition for already scarce natural resources, most notably fertile land and water. Consider, for example, the Lake Chad region, whose population had increased from 13 million in 1960 to more than 35 million by 2007. This rise in numbers subsequently led to increased demands for irrigation projects, a 90 per cent decrease in the size of Lake Chad, and numerous disputes over access to land, water and fishing rights between pastoralists and farmers, as well as the 300 ethnic groups and sets of migrant workers that also reside around the lake.

This particular dispute is but one of dozens that have occurred and points to yet another problem - i.e., livelihood diversification across the region. Consider, for example, Niger's pastoral and agricultural regions, which were historically separated by a dividing line that was formally established in 1961. Recent population growth in the south, lack of effective land management in the north, and climate instability have prompted agriculturalists to spread their fields into traditionally pastoralist spaces. The pastoralists, in turn, have continued to move south in the dry season, primarily in order to find water and pasture for their herds. These colliding patterns have inevitably (and unsurprisingly) led to conflicts over the safeguarding of farmlands and natural resources by various groups in the disputed areas.

How Best to Adapt

Despite all the problems we've just described, the countries of the Sahel have nevertheless

attempted to develop climate adaptation strategies that mitigate the downstream problems posed by migration and conflict. A good number of them, for example, have coordinated their efforts within the United Nations Framework Convention on Climate Change (UNFCCC), which was established in 2002. The latter has promoted National Adaptation Programmes of Action (NAPAs) that are designed to help enable developing countries to “identify priority activities that respond to their urgent and immediate needs to adapt to climate change.” Between 2004 and 2011, fourteen Sahel states availed themselves of the NAPA option and submitted action plans to the UNFCCC. Their focus, of course, was to map out ways ahead on how to deal with weather-driven conflict and migration problems.

Despite these efforts, however, the authors of *Livelihood Security* argue that more needs to be done to make the above adaptation strategies work, and therefore by default safeguard food security. For example, while the NAPAs developed thus far do recognize the link between changing climatic conditions and the human responses they precipitate, few of them have included actual provisions for addressing these risks. As a result, *Livelihood Security* argues that adaptation planning should systematically prioritize investments and further strengthen certain climate change adaptation capacities.

This can be done, the report argues, by incorporating conflict and migration “sensitivities” into adaptation policy development, and by relying upon existing regional organizations such as the African Union to improve and coordinate adaptation initiatives between states, particularly if their conflict prevention, migration management and risk reduction capabilities are tapped. (Notice that the intent here is to building upon existing capacities, rather than on setting up new structures. Indeed, Burkina Faso’s efforts to strengthen early warning capacities and development planning strategies are a ‘positive example’ of how this approach would work.)

Ultimately, *Livelihood Security* warns that neglecting the factors that trigger conflict and migration may complicate attempts to develop effective climatic change adaptation policies. Instead, policies that reduce livelihood vulnerability, improve access to natural resources and decrease resource competition can reduce migratory pressures and minimize the threat of conflict. Accordingly, this places the safeguarding of food security at the heart of the Sahel region’s attempts to mitigate the most pernicious side effects of climate change.

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