



Climate change adaptation, conflict and cooperation: A diplomatic approach for Africa?

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KEY MESSAGES

- Climate change will increasingly challenge the ability of governments to provide for the needs and security of their populations. Climate change will act both as a threat and a conflict multiplier, contributing to a “new set of development challenges” (Brown & Crawford, 2009).
- There is a danger that climate change will contribute to the onset or exacerbation of socio-economic and political tensions. At worst, these tensions may erupt into violence.
- Conflict is not inevitable, nor should it be treated as such. While climate change may set the parameters for violence, effective decision-making will dictate whether specific situations become violent.

Introduction

Internationally, scientific and policy debates on the security implications of climate change have recently gained great momentum. Today, there is little doubt that climate change poses one of the key challenges for global economic development and human wellbeing and may put peace and security at risk, as natural resources such as water, food, and energy become scarce. Alongside these scarcities and as a result of extreme weather events such as floods and storms, increasing migration movements are expected.

Africa is already disproportionately affected by these changes due to weak adaptive capacity and existing vulnerabilities. Scientific analysis has established that, since 1990, at least 18 violent conflicts have been fuelled by the exploitation of and trade in natural resources. More broadly, over the past 60 years, at least 40 percent of all intrastate conflicts have been linked to natural resources (UNEP, 2009).

The global policy agenda on climate and security is evolving rapidly. For the first time in history, the United Nations Security Council (UNSC) has adopted a Presidential Statement on climate change and its impact on international peace and security (20th July 2011). In this statement, the UNSC expressed its concern “that possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security”.

The trajectory of climate and security on the global political agenda

- 2007:** the European Union (EU) proactively pushes the debate on climate change and security.
- 2007:** the United Kingdom of Britain and Northern Ireland (UK) brings the issue to the United Nations Security Council (UNSC).
- 2009:** the United Nations General Assembly (UNGA) unanimously agrees to a resolution on “climate change and its possible security implications”, following a proposal made by the Pacific Small Island Developing States, supported by the EU. This is based on a call on all UN organs to intensify their efforts to address climate change and a suggestion that the UN Secretary General (UNSG) provides a comprehensive report on the security implications of climate change, to be submitted to the UNGA.
- 2011:** Germany chairs UNSC debates on climate change and security and the Presidential Statement is adopted.



Global policy evolution: Africa's position

Africa, as the continent least responsible for global climate change, is typically acknowledged as the place where climate-related conflicts are likely to erupt. This likelihood is a consequence of the continent's existing vulnerability to climate stressors, its economic reliance on climate dependent sectors, and its history of conflict, poverty and weak governance. Yet Africa has been relatively silent in the global climate and security political debate. Neither the African Union (AU) nor individual Member States have articulated formal positions.

There has however been some engagement: on 11 October 2010 Africa, the EU and major international actors embarked on a structured long-term "dialogue process" to address the security implications of climate change in Africa. This dialogue was also the beginning of an assessment of the needs of African partners from the security perspective, with an emphasis on water security, migration, food security, natural disasters and energy security.

The African Union has also expressed willingness to facilitate the debate within Africa, provided that robust research findings reach the institution (Climate Change Conflict and Cooperation in Southern Africa: Dialogue, 23 September 2011). Further, the Secretary of the African Union Peace and Security Council (AUPSC) underscored the benefits of a proposed technical meeting between the AU, the secretariats of the eight RECs, and some civil society and research organisations. The meeting will take place after March 2012.

The imperative for African countries to respond and adapt to climate change impacts is widely acknowledged. Africa's voice in the international climate change negotiations, under the United Nations Framework Convention on Climate Change (UNFCCC) process, has strengthened considerably in the past three years, under the African Group of Negotiators (AGN), which represents 54 Member States. The current Chair of this Group, the Democratic Republic of the Congo, has achieved a remarkable degree of alignment on key negotiation positions, with the AGN favouring the "two track" negotiation process, an ambitious agreement on emission reductions (limiting global temperature rises to below 2 degrees) and the balanced allocation of finance (for adaptation). As a result of these activities, Africa's impact in the UNFCCC process is far less insignificant

than it previously was. Similarly, the stimulation of increased momentum in the climate diplomacy dialogue will help to ensure that Africa does not lag behind in the UNSC process.

Climate vulnerability and exposure to climate change

Threats to security are most likely to arise in those regions where climate change impacts are most acute, where the affected populations are highly vulnerable, and where the ability of local and national governments to peacefully cope with the resultant changes are hindered by weak governance and lack of capacity.

Climate change in Africa, fundamentally, is about water. Access to water dictates where communities can grow food and hence where they can live. According to the UNESCO World Water Development Report (2009), climate change will complicate this relationship by making "[naturally occurring] variability greater, shifting and intensifying the extremes, and [introducing] greater uncertainty in the quantity and quality of supply over the long run".

Over the course of the coming century, Africa will be hit very hard by climate change. With warm climates and inconsistent rainfall, and with large areas characterised by poor soils and floodplains (Garcia, 2008), many parts of the continent are likely to experience amplified challenges.

Warming-induced changes in climate systems are expected to increase the intensity and frequency of extreme weather events, particularly flooding and drought. More rain is expected to fall during more intense storms, with longer periods of drought in between (WBGU, 2007). Given the size of the continent, these impacts will not be uniformly experienced, and significant regional variations in temperature increases, in the frequency and intensity of extreme weather events, and in the magnitude, duration and distribution of rainfall, can be expected. Some areas may see more rain, others less – changes experienced on the periphery of the Sahara, for example, may differ dramatically from those experienced in the Congo Basin.

Increases in rainfall variability also present a more immediate problem. Water resources being so unevenly distributed across the continent, and often in short supply where demand is the greatest, increases in rainfall variability will be far from uniform, and rainfall patterns will become increasingly difficult to predict from one season to the next. The resultant disruptions in planting and harvesting schedules are likely to have profound impacts on food security.

Warming in Africa is expected across all seasons. Internationally recognised climate models project the annual mean surface air temperatures are likely to increase by between 3°C and 4°C by the end of the century (IPPC, 2007). This is roughly one-and-a-half times the projected average global temperature increase (IPCC, 2007). There

will be regional variations: drier sub-tropical regions are expected to warm more than the moist tropics, with warming likely to be greatest over the interior of the semi-arid margins of the Sahara and central southern Africa. Under one high-warming scenario, southern Africa temperatures between the months of September and November are projected to escalate by up as much as 7°C (Ruosteenoja et al, 2003).

Furthermore, sea level rise will threaten the viability of both coastal settlements and coastal agriculture throughout Africa.

No broad consensus has been reached on exactly what these changes will mean for the continent as a whole, but they will have a significant impact on the magnitude, duration and number of precipitation events, the frequency and intensity of extreme weather events, and sea levels.

A scientific review of exactly what a 2°C global temperature increase will mean for differentiated parts of Africa is being promoted. **The proposed review should include a thorough analysis of the related implications for security, peace and stability.** This review will also take into consideration Africa's sensitivity to climate change as well its capacity to adapt.

Sensitivity to climate change

Conflict and instability are key components of Africa's existing sensitivity to climate change. Recent conflict, as well as political and economic instability in many parts of the continent, have contributed to climate sensitivity in a number of ways. These include the reversal of development gains; the displacement of populations; the disruption of social networks; the destruction of infrastructure; and the weakening of governance and institutional mechanisms for dealing with climate change. These conditions have the added effect of leading to a deleterious atmosphere of distrust which creates barriers to cooperation. Countries at the bottom of the most recent UNDP Human Development Index (Zimbabwe, Democratic Republic of Congo, Niger, Burundi, Guinea Bissau, Chad) demonstrate that conflict and instability are incompatible with sustainable development, and are significant drivers of climate vulnerability (UNDP, 2010).

Other key contributors to Africa's climate sensitivity include widespread poverty, water management and sanitation constraints and population pressure. The gross national income per capita for sub-Saharan Africa is the lowest in the world and many African economies continue to rely on rain-fed agriculture with very low irrigation capacity. One third of all Africans live in drought-prone regions and close to 200 million people currently experience significant water stress. The continent's population is expected to double by 2050, and will contribute a quarter of the world's 9 billion people.

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POLICY RECOMMENDATIONS

- Threat minimisers need to be mobilised. These include: increased efforts to secure an ambitious global agreement on reduced emissions; increased support for adaptation; continued investments to reduce poverty and vulnerability; integration of climate change into all relevant levels of governance; support for stronger governance and institution building; investments in better climate data; and increased cooperation to meet shared climate challenges.
- Africa needs to develop continental, sub-regional and national positions on climate diplomacy. These should be aligned with the UNFCCC process. This is critical if Africa is to have a coherent voice in the global political United Nations Security Council (UNSC) agenda, if sub-regions are to minimise the increasing risks of transboundary tensions, and if countries are to respond effectively and coherently to climate change risks and impacts.
- Scientific reviews need to become more regionally and contextually specific. These should include analysis on the security and stability implications of climate change.

Adaptive capacity

However, adaptive capacity to deal with the challenges of climate change does exist in Africa to some extent. African economies are growing (relatively) fast and are diversifying away from agriculture. Such economic growth and diversification should contribute to reductions in poverty, a major barrier to adaptive capacity. African cities are the fastest growing cities on the planet, and present significant opportunities for upgraded efficiencies in terms of service delivery. Democratic governance is also improving. Despite continuing conflicts, Africa is much more peaceful than it was a decade ago. Moreover, African communities have been coping for decades with climate variability in a largely peaceful manner. The capacity of local knowledge and practice and indigenous conflict resolution and coping mechanisms to cope with climate variability has been demonstrated, and is increasingly acknowledged.

Thus, significant adaptive capacity does in fact exist, and needs to be factored into the discussion of the continent's exposure and vulnerability to climate change.

Transboundary water: a source of conflict or cooperation?

A stressor and development challenge in its own right, climate change is also likely to exacerbate existing stresses. Key amongst these is water, an already stressed resource in large parts of Africa both in terms of supply and sanitation. The transboundary nature of water resources complicates the issue: more than 260 African river basins are shared by two or more countries and there are five river basins that are shared by eight or more countries (see Pegram, *et al*, 2011). All told, an estimated 90 percent of all surface freshwater resources are located in shared river basins and lakes (UNDP, 2006).

In the absence of strong institutions and agreements, changes within a basin can lead to transboundary tensions. When major projects proceed without regional collaboration, they may become points of conflict, heightening regional instability. International rivers pose particular management challenges because of competing national interests and limited mechanisms for cooperative action between nations that share major river basins (see Phillips, 2011).

The apocalyptic prospect of future "water wars" has been embellished by some writers and activists. However, history has shown that nations that share international river basins have achieved effective cooperation in the transboundary management of water resources (see Gleick, 1993; Yoffe *et al.*, 2003).

Despite the obvious benefits of regional cooperation, significant political, physical and geographical barriers continue to bedevil cooperative progress on the African continent.

If the continent's adaptive capacity remains largely unharnessed, the possibility that climate change will act as a "threat multiplier", increasing the risk of conflict and insecurity, becomes all too real.



Additional stressors

1. **Recovery capacity:** In addition to water scarcity, droughts and other extreme events is expected to increase in the frequency and intensity. This means that impacted regions, countries and communities will have less time and capacity to recover between events.
2. **Population pressures:** Coupled with increasing urbanisation, population increases will place increased pressure on demand for already scarce resources. This is likely to result in significant impacts on food security and health.
3. **Food production shortfalls:** These are likely to result in rising prices, fewer farming jobs, a decline in economic sustainability and severe food crises, exacerbating the undernourishment that already affects a significant portion of the population.
4. **Governmental capacity:** The cumulative impact of increasing food and water insecurity, population movements, ever more extreme natural disasters, and the burden of more prevalent diseases, all threaten to strain or overwhelm the capacity of governments to meet the basic needs of their growing populations. The mounting demand for jobs and public services could in turn lead to political and economic instability within countries.

In 2004, the UN identified nine river basins in Africa at risk of the onset of tensions or conflict. If the flows of significant international African rivers are lowered as a result of climate change, such tensions may well be exacerbated, and the mechanisms currently in place for transboundary water management may be further compromised. The lowering of river flows may diminish the number and quality of water resources available for upstream and downstream domestic consumption, industrial use, agriculture and energy production. Rapid population growth and the corresponding increase in demand for water resources will add to these problems.

Conclusion

The global policy agenda on climate change, human security, peace and stability has evolved considerably in the last few years and there is every indication that this momentum will be sustained. Africa, acknowledged as a region highly vulnerable to the impacts of climate change and with its own history of conflict, has every reason to actively engage in, and to contribute to, the evolution of global policy.

A well thought-through regional position on climate diplomacy and regional cooperation, underpinned by robust evidence, will assist Africa in achieving a voice in international policy. At the same time, it will serve to guide the continent through its own, much needed, responses to the security-related impacts of climate change.

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