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The Security Dimension of Climate Change in Africa

Interdependencies between environment, development, and conflict prevention have gained significant importance on the international agenda over the past years. Energy, climate security, and sustainable natural resources management are now priorities of most multi and bi-lateral organisations.

At the same time an increasing number of donors are stepping up their efforts to better understand and address the risks associated with state fragility, considered a major threat to national, regional, and international security. State building and peace-building, believed to be key to break the circle of conflict and insecurity in such fragile countries as Zimbabwe or the Democratic Republic of Congo (DRC), are becoming core elements of the international development agenda.

Academic and policy circles agree state fragility and failure of governance, poverty, inequality, and marginalisation, among others, are core causes of conflict and insecurity in most conflict affected environments. It is states that are incapable or willing to perform their core and expected functions that create conducive environments for conflict and insecurity. Climate change *per se* is not a direct cause of conflict and insecurity.

However, commentators reco-gnise that natural resources play an important role in several conflicts, and that the already fragile security situation in some regions of the world risks to be further destabilized as an effect of climate change.

Climate change, in such contexts, would work as a "threat multiplier".

The argument suggests that the consequences of climate change can further aggravate situations of fragility and instability, increasing existing tensions and further under-mining the capacity of weak states to perform their core functions. Also, such states will very unlikely be capable of responding to the threat of climate change adequately.

Africa, where the majority of poor people live, where the greatest number of fragile states is, and where the linkages between conflict, instability and natural resources are evident and complex, is particularly "at risk".

At the same time the African continent risks to suffer the most from global warming and the consequences of climate change.

Understanding the nature and extent of the interaction between climate change, conflict and insecurity is critical and must inform

Abstract

The impact of climate change on conflict and security is increasingly attracting the interest of the international community.

Academic and policy circles agree that climate change *per se* is not a direct cause of conflict and insecurity; failure of governance and poverty are, in most instances, core causes of conflict.

However, evidence suggests that natural resources and climate change-induced environmental stress can play an important role in increasing insecurity. Climate change can act as "threat multiplier" by undermining the capacity of weak states to perform their core functions and increasing competition over scarce resources. Africa, where resources-dependency is high and the greatest number of fragile states is found, is particularly "at risk".

Conflict prevention and peace-building strategies must be informed by an understanding of climate change issues. Actions targeting climate change, particularly in vulnerable regions, must be conflict sensitive.

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conflict prevention and peace building strategies. At the same time, strategies and actions targeting climate change must be conflict sensitive in order to reduce the multiplier effect of the consequences of climate change on conflict and insecurity.

This paper proposes a synthesis of the current debate about the interaction between climate change, conflict and insecurity.

It explores the main mechanisms through which these interactions manifest and the key sectors that are concerned, with specific focus on Africa.

It then summarises some key policy directions, based on recent research, to address the security implications of climate change in Africa.

The Focus of Current Research

Recent and on-going research in the area of climate change, conflict and insecurity aims to understand firstly the causal links between climate change and its environmental, economic and social impacts; and secondly, how those impacts may increase the risk of violent conflict. Whilst research can help identify which sectors and regions are most likely to suffer from the conflict impacts of climate change, it cannot and does not aim to predict where future conflicts or disasters will take place, based on an analysis of climate change trends.

Climate Change, Conflict and Security. The Debate on the Causal Links

The growing potential for conflict associated with climate change and the resulting rise in insecurity are increasingly a subject of discussion, and often of controversy. As a matter of fact, there is still little empirical proof of a direct causal link between climate change and violent conflict.

Several high-level reports and recent studies[1], however, highlight major implications of global environmental change on national, regional, and global security thus putting climate protection and natural resource management into the broader context of foreign and security policy.

Analysts also point to the fact that it is societies with weak adaptive capacity, which are most vulnerable, and, thus, severely affected: developing countries, given their geographical situation and dependency on agriculture and lack of financial or institutional resources and capacities face specific challenges in countering the negative impacts of climate change. Here, climate change poses a threat to human security and undermines key

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[1] *Review* by the Intergovernmental Panel on Climate Change (IPCC), 2007; German Advisory Council on Global Change (WBGU), *World in Transition: Climate Change as a Security Risk*, 2007; CAN, *National Security and the Threat of Climate Change,* 2007; *Stern Review on the Economics of Climate Change*, 2006; O. BROWN *et al.*, *Climate change: the new security threat*, in «International Affairs», 83, 6, 2007, pp. 1141-1154.

development objectives.

There seems to be little doubt that, over the long term, climate change will lead to resource scarcity and environmental degradation, thus amplifying or triggering existing social and political tensions, conflicts and security problems or leading to new ones. State institutions already overstretched will come under additional pressure, and will find it increasingly difficult to perform elementary state tasks.

Combined with growing environmental stress, this will impact the adaptive capacity of societies adversely and will thus also limit their capacity to engage in peaceful conflict resolution. An increasing use of violence to resolve conflicts, some argue, could be the result, as well as escalating security risks in the affected societies and in neighbouring regions.

A range of other global trends, notably rising levels of resource consumption due to economic development, population growth and urbanisation, might make the adverse effects of climate change all the more manifest.

However, we need to be careful in linking climate change to conflict too simplistically, as environmental factors are seldom the primary cause of conflict.

An analysis of more than 70 "environmental conflicts"[2], for instance, shows that environmental factors to date have rarely led directly to violent conflicts or problems of international security. Rather,

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[2] WBGU, *World in Transition*, cit.

socio-economic conditions are often affected adversely by increased environmental stress to such an extent that existing coping capacities are over-stretched.

Crises induced by environmental stresses only become relevant to security policy through their follow-on impacts, i.e. migratory movements, the establishment of war economies and transnational criminal networks.

Focusing on climate change as a security threat, some commentators argue, might shift liability for wars and human rights abuses away from oppressive, corrupt governments and might divert attention away from prudent adaptation mechanisms, among others.

The Causes and Incidence of Conflict in Africa

Africa has experienced more violent and longer conflict than any other continent in the last four decades[3].

Violent conflict is not only devastating in human terms, but also undermines the long-term prospects of entire regions; it is, in effect, "development in reverse"[4]. Estimates show that wars stripped about US$ 18 billion a year from African economies between 1990 and 2005[5].

The causes of the conflicts in Africa in the last decades are complex and multifaceted. They include: failure of political and governance systems in the post-colonial era and artificial boundaries (i.e. remote sources); extreme poverty, and scarcity of basic necessities of life; competition for land, oil or other natural resources, support for internal conflicts by outside actors, government policy and resource misallocations (immediate causes); arms availability, pressures of refugees or internally displaced persons and food insecurity (exacerbating factors).

Whilst positive longer-term trends show a reduction in armed conflict in Africa[6] and there seems to be a new engagement by Africans and the international community, there is, now, concern that climate change will reverse the recent progress.

Africa's Vulnerability to Climate Change

Climate change is only one of the many security, environmental and developmental challenges facing Africa and the rest of the world. Also in the African context, climate change acts as a "threat multiplier" that makes existing concerns, such as water scarcity and food insecurity, more complex and intractable. Here as elsewhere it is non-climate factors that will largely determine whether and how climate change moves from being a development challenge to presenting a security threat.

Africa is one of the most vulnerable continents to climate change and climate variability. This vulnerability is both a function of continent's complex climate system and that system's interaction with socio-economic challenges like endemic poverty. Projected climatic changes for Africa suggest a future of increasingly scarce water, collapsing agricultural yields, expanding desert and damaged coastal infrastructure. This coincides with a growing population. Already the Sahelian climate, for instance, is described as a dramatic example of climatic variability.

Concerns are also raised by the fact that many of Africa's economies are dependent on sectors that are susceptible to climate fluctuations, such as agriculture, fisheries, forestry and tourism. Agriculture represents between 20 to 30 per cent of GDP in sub-Saharan Africa; it makes up 55 per cent of the total value of African exports. Depending on the country, between 60 and 90 per cent of the total labour force in sub-Saharan Africa is employed in agriculture. In some countries agricultural yields could decline by more than 50% by 2020 and incomes by more than 90% by 2100[7].

In regard to the socio-economic context, poor governance, persistent and widespread poverty, poor economic and social infra-structure, ecosystem degra-

[3] Commission for Africa, *Our Common Interest: Report of the Commission for Africa*, London 2005.
[4] P. COLLIER, *Breaking the Conflict Trap: Civil War and Development Policy*, Washington 2003.

[5] IANSA, Oxfam and Saferworld, *Africa's Missing Billions*, 2007.
[6] Human Security Centre, 2005 and 2007.

[7] *Review* by IPCC, 2007, cit.

dation, complex disasters and conflicts, and limited human, institutional and financial capacities means that as a continent, Africa, and communities are the least able to adapt to the effects of climate change[8].

Also, Africa's raw materials keep on being the focus of geostrategic interests, and urbanisation is constantly on the increase. In West Africa, a roughly 500 km long metropolitan belt is developing between Accra and the Niger Delta, which will be highly vulnerable in the face of any rise in sea level.

A 2007 report by the United Nations Environment Programme (UNEP)[9], reinforced by declarations by UN Secretary General Ban Ki-moon suggested, for instance, that the conflict in Darfur has been in part driven by climate change and environmental degradation.

Beyond Darfur, it is clear that growing water and food insecurity, coupled with the impact of migratory flows, will put increasing pressure on the provision of basic needs and may exacerbate existing ethnic and political tensions.

North Africa in particular faces the potential for political crisis and increased migratory pressure as a result of the

interaction between increasing drought and water scarcity, high population growth, a drop in agricultural potential and "poor political problem-solving capabilities"[10].

Natural disasters have also been linked to conflict. From a study of 171 storms and flood disasters since 1950 a clear connection was established in 12 cases between the natural disaster and the intensification of conflict or a political crisis[11].

In Central Africa where the borders of Sudan, Chad and the Central Africa Republic meet, anticipated climate trends could acquire considerable significance for security policy, as the resource problems are set to intensify noticeably due to the spread of the Sahel zone over the coming years.

The resulting refugee flows in turn threaten to transport these countries' problems into their neighbouring countries. Thus, in addition to transnationalising violent conflicts through cross-border troop movements, the degradation of resources might be further advanced, becoming a threat to international security.

In West Africa climate change will place many states under stress. Firstly population growth and increasing desertification may undermine agricultural production and energy provision, among others, and may accelerate migration movements. Second, sea-level rise poses a threat to populations concentrated in

urban coastal regions. In the Niger Delta alone, more than one million people could be driven from the delta for this reason by 2050. Several cities with more than a million inhabitants, such as Freetown, Accra, Monrovia, Abidjan, and Lagos are located in immediate proximity to the coast.

Nigeria and Côte d'Ivoire are the two countries currently most at risk because of their fragile statehood and severe internal tensions.

These two climate-sensitive hotspots might not only mutually reinforce one another in a negative manner, but also destabilise adjacent countries, i.e. Liberia, Sierra Leone, Ethiopia and the Democratic Republic of the Congo (DRC), also suffering from governance deficiencies. This, policy analysts fear, may give rise to the emergence of a transcontinental belt consisting of mutually reinforcing fragile states, extending from West Africa to the Horn of Africa.

Despite the fact that recent years have seen the steady improvement of Africa's economic prospects, a reduction of levels of conflict, improvements in the quality of governance, and an increase in the number and nature of democracies, policy makers fear, in the light of some of the threats highlighted above, the emergence of a transcontinental belt of fragile statehood. This seems to be already happening in neighbouring Sudan, Chad and the Central African Republic and in the West African coast (Nigeria, Côte d'Ivoire).

Despite some evidence,

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[8] M. BOKO *et al.*, *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge 2007.
[9] UNEP, *Sudan: Post-Conflict Environmental Assessment*, Nairobi 2007.

[10] WBGU, *World in Transition,* cit.
[11] CRED, *Emergency Events Database*, http://www.emdat.be/2006.

whether climate change is playing a role in such conflicts as Darfur and other mentioned above, is, however, highly controversial. Some analysts caution against over-emphasizing the role of climate change in Africa, reminding, instead, the importance of the capacities of institutions to manage tensions that might escalate into conflict.

The Interaction between Climate Change and Governance

A key sector to analyse further in regard to the interaction with climate change, conflict and insecurity is governance. As already mentioned, failure of go-vernance is a core cause of conflict and weak governance makes it difficult to manage the consequences of climate change. In already fragile contexts this might result in a spiral of vulnerability and insecurity.

Although there has not been sufficient research to date on the interaction between environmental stress and state destabilisation, research has indicated that political stability, legitimacy and the performance of the political system correlate with vulnerability to conflict.

The impacts of climate change on individual sectors place considerable demands on the capacity of states to deliver services and on their governance structures, thus affecting their capacity to perform key functions and tasks. In the occurrence of disastrous events state insti-

tutions might loose legitimacy. As a result, state performance in general and mechanisms of civil conflict transformation in particular are weakened. It is the fragile states and those already marked by conflict that will be affected first and most severely.

Climate change impacts also affect the state's capacity to exercise the monopoly of force. This arises as a result of the opportunity costs of climate change and of the rising costs of maintaining the monopoly on force[12]. Especially in the case of extreme weather events, public order may break down locally and produce a lawless zone. In many places, the uncontrolled growth of cities already eludes the capacity of states to exert control, representing a concrete challenge to their monopoly on force internally and thus also to their capacity to enforce law and order. The weakening of the political steering capacity of a state can also, due to the impacts of climate change, leave space to actors prepared to use violence in pursuit of their own interests. Attempts to respond to potential losses of internal security by expanding capacity and implementing excessive repressive measures may reinforce marginalisation and thereby accelerate loss of legitimacy.

Lastly, failure to protection of human rights and the rule of law in times of crisis also has a strong delegitimising effect and leads to a loss of trust and, in some instances, to violence.

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[12] CAN, *National Security*, cit.

The message is clear: deficiencies in dealing with societal problems exacerbated by climate change may contribute to the delegitimation of governments. This may occur in particularly acute forms in the contexts of state fragility and in the case of failing disaster management. The consequences may include political instability and insecurity.

The more fragile a state already is, the stronger the impact of these factors.

In Africa, the world's poorest continent and the one with the greatest number of fragile states, the impact of climate change on governance can have very serious cones-quences.

Conclusion: Climate Change Acts as a Multiplier

It has been argued that environmental stress can increase the severity, duration and collateral impacts of a conflict and insecurity. However, environmental factors are rarely, if ever, the sole cause of violent conflict. It is non-climate factors (such as governance and poverty) that will largely determine whether and how climate change moves from being a development challenge to presenting a security threat. The cumulative impacts of climate change could exa-cerbate these drivers of conflict, and particularly increase the risk to those states already susceptible to conflict, for example where weak governance and political processes cannot mediate successfully between competing interests.

In this regard, it is worth

reminding that parts of the developing world are both particularly vulnerable to the impacts of climate change, and least equipped to cope with them. Some states in these regions, notably in the Sahel, the Horn of Africa, parts of the Middle East, and parts of Asia and the Pacific, are already areas of existing instability, and in some cases, current or recent conflict.

The interplay between the new drivers of tension increases the likelihood that problems, which could so far be dealt with in a national context and were located mainly in the sphere of "human security" take on a new quality. These problems may lead to the further destabilisation of already fragile states and may, in extreme cases, become regionalised or internationalised. The basic assumption here is that governments will no longer be in a position to carry out key state functions, in the form of public services, and will forfeit legitimacy and authority. In extreme cases, they will become permanently vulnerable to extremism, terrorism and rebellion; at the least, however, there will be a further intensification of the "push" factors of migration.

Policy Directions

Responses to the potential impact of climate change on peace and stability must be based on a deep understanding of the context and must work on many fronts. They include:

- Improvements in the way research and analysis on conflict, security and climate change is conducted and projection and prediction made. This will help to delineate potential "hot-spots" and assist policy-makers in taking appropriate measures to prevent or manage conflict.

- Initiatives aimed at increasing capacities and resources of governments and communities, in particular of women, to implement effective, conflict sensitive adaptation strategies. These will include better water management, promoting agricultural development, and developing more effective disaster management and early warning systems.

- Ensure the integration of climate change concerns into conflict prevention and peace building strategies. This will imply that African government, regional and international organisations follow through their commitments to improved governance, more effective conflict prevention and peacekeeping in Africa.

- Strengthen regional co-operation for the management of shared resources such as transboundary rivers and in such areas as trade and investment.