22 The Missing Link: Environmental Change, Institutions, and Violent Conflicts

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Abstract

In current debates about climate change, the environment is often seen as a potential cause of violent conflicts. According to this view, environmental degradation will significantly increase the stress put on various societies, particularly in so-called weak and fragile states, and thereby cause political destabilisation and violence while jeopardising national and international security. Drawing on research conducted within the Swiss National Centre of Competence in Research (NCCR) North-South programme, this article shows that establishing such direct causal links is simplistic and reductionist. While recognising that climate change, and especially resource scarcity, can lead to violent conflict, we argue that, when trying to understand the relationships between changes in the environment and violent conflict, it is crucial to put social and human dimensions at the centre of the analysis. Climate change may render human interaction and social regulation more difficult, but it will hardly ever directly affect the probability of violence. Climate policy will not bring about peace any more than peace policy will improve the climate. In other words, the missing link in current debates about environmental conflicts is the key role played by political, social, and cultural institutions in mediating between the two terms of the equation.

Keywords: Environmental change; resource scarcity; violent conflict; institutions; statehood.

22.1 Introduction

In 2007, the German Advisory Council on Global Change (WBGU) published a report entitled "World in Transition: Climate Change as a Security Risk" (WBGU 2007). Drawing on the alarming figures published by the Intergovernmental Panel on Climate Change (IPCC) in the same year, it argued that without resolute counteraction, climate change would significantly increase the stress put on various societies, particularly in so-called weak and fragile states. This, in turn, could provoke destabilisation and violence and thereby jeopardise national and international security. As a countermeasure, the report suggested an ambitious global climate policy. Otherwise, it continued, climate change could trigger distributional conflicts and intensify the erosion of social order and the rise of violence. Such clear-cut statements are of high political saliency. In spring 2008, for example, the EU High Representative for Foreign and Security Policy, Xavier Solana, and the European Commission published a joint paper on climate change and international security for the attention of the European Council, that is, the heads of state or government of EU member states (European Council 2008). The paper builds on the same logic as the WBGU report, according to which the evidence provided by the IPCC about the increased rapidity of climatic and environmental changes provides clear guidance not only for climate policy, but for peacebuilding as well.

As important as environmental awareness with respect to observed climate change may be, the conclusions drawn in such studies raise two major issues. First, the link that is established between environmental transformation (including resource scarcity) and violent conflicts needs to be questioned critically on the basis of empirical evidence. Even the direction of the correlation should be challenged: scarcity might well be more an effect than a cause of conflict. The second issue concerns the measures to be adopted in order to mitigate the diagnosed security risks. The solutions put forward by the WBGU harbour the danger of narrowing a whole set of societal problems down to environmental issues. A salient example which led to many controversies was provided by a contribution of United Nations Secretary General Ban Ki Moon to the *Washington Post* in June 2007, in which he established a direct link between ecological degradation and the Darfur crisis (Ban Ki Moon 2007). Does this mean that the perpetrators of massacres mainly react to environmental threats? And does it also mean that a successful global climate policy would ultimately contribute to mitigating conflicts such as the one in Darfur?

Drawing on research conducted within the Swiss National Centre of Competence in Research (NCCR) North-South programme,[3] the present article sheds new light on this debate. One of the main conclusions to be drawn from the body of academic work presented below is that seeing the environment as a direct cause of violent conflict is politically opportunistic, and that it can have potentially disastrous consequences for the efforts undertaken by politicians, peacebuilders, and peace researchers to reduce violent conflicts and their effects. The issue here is not to refute a priori the idea that climate change, and especially resource scarcity, *could* lead to violent conflict. What we maintain instead is that, when trying to understand the relationships between changes in the environment and violent conflict, it is crucial to put social and human dimensions at the centre of the analysis. Climate change may render human interaction and social regulation more difficult, but it will hardly ever directly affect the probability of violence. Climate policy will not bring about peace any more than peace policy will improve the climate. In other words, the missing link in current debates about environmental conflicts is the key role played by political, social, and cultural institutions in mediating between the two terms of the equation.

To support our argument, we proceed in three steps: we first briefly recapitulate debates on environmental conflicts and set out the approach taken in the NCCR North-South case studies. We then move on to present some key insights drawn from case studies on water and land issues. The article concludes by highlighting the importance of institutional regimes and the state, thus sketching new research perspectives around the issue of statehood.

22.2 From environmental security to natural resource use conflicts

The debate on the link between the environment and security dates from the final phase of the Cold War. In the wake of ecological disasters such as the 1986 Tchernobyl nuclear accident, drought and desertification in the Sahel belt, and debates in Western Europe about the possible death of forests, the environment began to be seen as a potential threat to international security. Reflection and research on how to ensure the security of states moved from an exclusive concern with protection against nuclear weapons to protection of the environment itself.

Since then, a number of research programmes have been launched in order to study and, if possible, 'measure' the links between environmental degradation and the occurrence of violent conflicts worldwide. This was the case, for instance, with Thomas Homer-Dixon and his Canada-based team (Homer-Dixon 1994, 1999) and the Environment and Conflict Project (ENCOP) team led by Günther Baechler and Kurt Spillmann (Baechler 1994, 1998). These two teams differed in their theoretical backgrounds and terminology. However, they both sought, on the basis of aggregated empirical evidence from a number of case studies, to establish causal links between environmental degradation, increased scarcity of renewable natural resources, and the occurrence of violent conflicts, with a particular focus on developing and transition countries.

Both groups came to similar conclusions, showing that resource scarcity and environmental degradation alone were rarely a direct cause of violent conflicts. But both also added that environmental degradation combined with other triggering factors such as socio-economic, ethnic, or social inequalities could, and in many cases did, contribute to such conflicts.[4] In other words, a consensus was gradually reached that conflicts linked to renewable natural resources such as land and water could not be traced back to a single explanatory factor such as environmental degradation, but that they depended on a plurality of social, political, economic, and environmental factors. More than a decade after these early studies were published, the link between environmental degradation and conflict remains elusive and difficult to ascertain on the basis of empirical evidence, despite widespread claims to the contrary asserted in popular discourse, in the media, and in scientifically based publications such as the latest report of the IPCC (Breitmeier 2009; Gleditsch and Nordås 2009; Take 2009).

22.3 An anthropocentric approach to environmental conflicts

It is on this basis that a research project on environmental conflict was elaborated as of 2001 at swisspeace, within the framework of the NCCR North-South. Rather than reopening the debate about the causality between natural resources and conflict, the project set out to analyse and understand how, in situations of environmental stress, potential conflicts over natural resources were managed by local and international actors (Goetschel and Péclard 2006). To do so, a shift in perspective "from environmentally induced con-

flicts to natural resource *use* conflicts" was suggested (Hagmann 2005, p 21, emphasis by authors of the present paper). This implied that issues such as resource scarcity and environmental degradation had to be analysed (1) in the context of social and political relations between the user groups concerned, (2) in relation to the role of institutions set up to manage resource use patterns, and (3) by taking into account the social and cultural rationale of groups involved in natural resource management and/or conflicts (ibid., pp 21–22).

This research agenda was implemented in a number of case studies in the Horn of Africa as well as in Central and Southeast Asia, with a focus on renewable natural resources such as water and land. Some of the key findings are briefly summarised below.

22.3.1 Water and politics

The Nile Basin stretches over ten countries and is home to approximately 160 million people. Water management is related to significant conflict potential. With an annual population growth rate of about 2 to 3% in the region, there is increasing demographic pressure on water and the risk of a growing imbalance between supply and demand is real. Moreover, the competing interests of riparian countries make things even more complicated. Relations between Ethiopia, where 86% of the Nile water comes from, and Egypt, which relies on the Nile for 95% of its water supplies, have thus at times been very tense (Mason 2004).

Two joint studies were conducted on this topic. One focused on the upper Nile in Ethiopia (Yacob Arsano 2007) while the second concentrated on Egypt (Mason 2004). The aim of both studies was to understand how to move "from conflict to cooperation" (Mason 2004, title) and thus solve "the dilemmas of hydropolitics" (Yacob Arsano 2007, title) which involve, on the one hand, inadequate management and unsustainable use of water at the national level and, on the other hand, a lack of security and cooperation that is characteristic of the region. Both authors underlined the importance of *linkage* strategies in water management and in the prevention of conflicts that could arise due to poor management. This concerns, firstly, links between the riparian countries, whose destinies are obviously interdependent due to their geographical location and which have great interests in collaborating. But, secondly, they also stressed the institutional, economic, and environmental links between all countries in the Basin. As Mason puts

it, "the problem of international water conflicts is not one of war, but rather unsustainable development resulting from the absence of cooperation" (Mason 2004, p xv). Yacob Arsano adds that cooperation needs to take place at all levels (local, national, regional) and "not only in the economic, academic and political fields, but also in the cultural and spiritual ones" (Yacob Arsano 2007, p 24).

Against a backdrop of mostly unilateral approaches to the management and use of the Nile Basin waters, and in order to deal in a constructive manner with conflicts linked to their use, Mason and Yacob Arsano suggest the establishment of a compensation mechanism. This mechanism would ensure compensation for the use of water by providing other resources or by including the affected populations in decision-making and management processes relating to water resources. Implementing such a compensation mechanism, as well as including the populations concerned, requires that an appropriate institutional set-up be put in place. This must reach beyond national borders and take into account existing power mechanisms at the local (traditional), national, and regional levels.[5] A comparative study on the management of water policies in Egypt and Ethiopia (Luzi 2007) provided a significant complement to this perspective. It adopted a 'two-level-game' perspective to conceptualise the interlinkages between domestic and foreign policy processes and to identify the range of domestically ratifiable water negotiation results. The study shows how the limited connectedness of sectoral agencies in both countries leads to fragmented policies. Insufficient planning and coordination capacities at the national level reduce the range of policy choices available to decision-makers.

Water is a key economic, political, and social issue in Central Asia as well. Here, too, there is a strong tendency in research and in development policies to establish a direct link between water resources and conflict.[6] Water scarcity is generally seen as the 'natural' cause of grievances which, once formulated and brought into the political fray by local communities, inevitably lead to violent conflicts. In this perspective, conflicts linked to water are considered 'endemic', that is resulting from struggles at the local level, or as the direct consequence of a degradation of inter-community relationships due to lack of water. The resolution of such conflicts is perceived primarily as a technical issue (improving irrigation networks) and a local question (creation of mechanisms of common water management at the level of local communities).

Research conducted in the Ferghana Valley, in the Syr Daria Basin between Uzbekistan, Tajikistan, and Kyrgyzstan, shows the limits of such an approach (Bichsel 2009). The very concept of water *scarcity* is critically questioned: Scarcity is not just an 'objective' issue, as it is generally considered, especially by development agencies active in the region. Scarcity is the result of power relations; the ways in which the stakeholders concerned perceive problems of access to and distribution of drinking or irrigation water, as well as the strategies they pursue (or do not pursue!) in order to solve those problems, must be contextualised. Besides, regarding these conflicts as 'endemic' is problematic. On the one hand, this generally leads to a primordialist vision in which the communities in question appear as homogeneous, whereas in reality they are, on the contrary, complex political societies with many lines of conflict. On the other hand, these conflicts are not only restricted to the local sphere.

Consequently, the responses of national and international actors to the problem of water distribution in the Ferghana Valley have often not been adequate. Firstly, the 'technicist' option, which consists in trying to prevent or solve water-related conflicts by simply improving distribution networks and the way they are managed by local communities, tends to 'depoliticise' problems that are, in fact, highly political by turning them into 'simple' issues of technical and community development.[7] Secondly, the role of power relationships at the local level, albeit crucial, tends to be ignored or underestimated. These power relationships are reflected in the importance given to the various judicial systems at the national, regional, and local levels. Very often, the national legal framework does not correspond to the daily life of local populations and does not make sense to them. Finally, the people and groups concerned do not necessarily adhere to the model of 'harmony' which external actors try to impose in order to solve conflicts that they believe they have discovered.

In other words, water in itself is rarely a cause of conflict. Rather, it is a terrain upon which other types of social and political conflicts or oppositions are played out. Understanding these conflicts and devising appropriate strategies to address them requires in-depth analyses of their historical, social, cultural, and political dynamics. This means looking far beyond the borders of the communities involved in the conflict. It also means that one has to understand the way in which the societies in question have been shaped by these very conflicts.

22.3.2 Land and conflict

Conflicts linked to the use and management of land have been studied from different angles and perspectives and in a wide variety of historical and geographical contexts. In this case as well, research results have shown quite clearly that, in order to understand the dynamics of these conflicts and devise strategies of intervention, it does not suffice simply to look for a link between the issue of access to and use of land on the one hand, and the occurrence of tensions potentially leading to violent conflicts on the other. Many other variables need to be taken into account as well.

Research on pastoral conflict and resource management in Ethiopia (Hagmann 2006) thus underlined the central but initially unexpected role of the state in shaping pastoral conflict and resource management in frontier areas such as Ethiopia's Somali region. Before the establishment of local government in pastoral lowlands, resource conflicts were primarily driven by competition over water wells and pastures. With the advent of decentralisation, numerous state or state-related resources have been brought into play. As evidenced by the NCCR North-South research, employment in the public sector, political nominations, state budgets, and basic government services such as education, food aid, security, and many others have become contested resources. They provide an incentive for political competition, fuel intergroup tensions, and transform existing conflict dynamics, which become intertwined with control of state office. In parallel with the 'trickling down' of state resources into remote rural areas, neo-patrimonial relations between resource users and state representatives are being established. These relations and networks tie rural constituencies to urban gatekeepers, determine the allocation of state resources, and assure politicians of electoral support on election day. By means of this process, state-building has politicised kinship relations and reconfigured the collective identities of pastoral groups (Hagmann and Alemmaya Mulugeta 2008).

Focusing on the potential of local institutions in conflict transformation in pastoral areas of Ethiopia, further research has shown that the often-stated argument according to which local institutions have deteriorated and strengthening their role will help to mitigate violent conflicts in pastoral areas, is often misleading (Alemmaya Mulugeta 2010). Indeed, Alemmaya Mulugeta shows that the dichotomy between local institutions and state institutions exists only in theory. Whether formally or non-formally established, local institutions remain alive at the level of social narrative and pub-

lic ideology, and thus play a very important role in shaping the history of the respective community. However, the state has recently claimed the role played by local institutions in terms of conflict mitigation on the ground, even though it lacks the capacity to do so for both structural and political reasons. On the structural level, state institutions usually lack the resources that would enable them to understand how and why violence occurs in specific places. On the political level, the main problem is that the state itself is often heavily involved in instigating violence, which of course makes it impossible for it to play the role of a neutral actor in conflict resolution processes (Alemmaya Mulugeta and Hagmann 2008). Moreover, Alemmaya Mulugeta argues that the roots of violence cannot be fully understood by looking solely at actors directly engaged in violence itself, but that other 'invisible' actors such as investors, businessmen, and non-governmental organisations (NGOs) that act as apparently neutral parties or play a developmental role should also be taken into account (Alemmaya Mulugeta 2010).

The issue of land distribution is of central relevance as well, as research in South Asia (India and Bangladesh) and Southeast Asia (Philippines, Indonesia) has shown. In this case, the focus was on the relationships between settlers and indigenous populations regarding access to land ownership, especially in border zones (in a social as well as geographical sense). The arrival of settlers in such areas, whether as part of a state scheme or on their own initiative, generally gives rise to tensions between settlers and indigenous communities, who feel threatened by the newcomers. Violent conflicts that arise from such situations usually crystallise around the issue of 'indigenousness', creating anti-immigrant discourses and practices based on the right of 'autochthons' to dispose of their land. In such cases it would be simplistic to reduce the dynamics of conflict to the question of access to land resources or to the lack of land due to the arrival of settlers. Here as well, conflicts are not just 'environmental' but are the result of constellations of conflicts with different origins and rationales (ethnic, political, social, economic, cultural, etc.). Any attempt at mediation in such conflicts must take this complexity into account (Geiger 2008).

The issue of land titling on the island of Mindanao, Philippines, shows just how complex and ambivalent intervention strategies are. In 1997, the government passed the Indigenous Peoples Rights Act (IPRA), a bill without comparison throughout Southeast Asia in terms of protecting indigenous people. By granting indigenous communities the right to claim – and obtain – ownership to their land, this law indeed introduced an apparently powerful

instrument for the protection of indigenous minorities. On closer examination, however, things are not as simple as they appear. IPRA is in fact part of a hegemonic strategy of the Filipino state, which tries to extend its control to 'frontier zones' – where its presence is very scant and its power heavily questioned – through the introduction of a bureaucratic logic of classifying peoples and groups, and through the titling of land. What appears at first sight as an efficient measure of protecting ethnic minorities is in fact also, or primarily, an instrument of state control (Wenk 2005).

The central contribution of these different studies has thus been to demonstrate the crucial importance of the human factor in so-called 'environmental conflicts'. The key to prevention and resolution of such conflicts, therefore, does not lie in technical interventions that only aim to address the environmental causes (e.g. combating drought) or to improve resource distribution and circulation (e.g. through better irrigation and water distribution networks or by improving access to land), but in the human, social, political, economic, and cultural management of the resources concerned. This anthropocentric approach to resource use conflicts, by putting individuals and social groups at the centre of analysis, also aims to understand the institutional dimensions of conflict and to assess the potential that institutions – be they customary, community-based, or part of the state apparatus – have in terms of conflict prevention and resolution.

22.4 Conclusion: Bringing institutions and states back in

With the publication of the WBGU report in 2007, the debate on environmental conflicts has come full circle, since the security implications of climate change are seen in much the same way as when the issue made its entrance on the international scene at the end of the Cold War. In this context, it is particularly important to move from a strictly 'environment-centred' to a 'human-centred' approach.

This move allows us, first of all, to pay due attention to the way in which existing institutional mechanisms of conflict prevention in the societies concerned can contribute to 'environmental peacebuilding' (Péclard 2009). It also helps to understand how, paradoxically, such institutions can have negative effects on efforts to solve conflicts, especially in contexts where, as in the Ethiopian lowlands, their role is being challenged by state institu-

tions that lack the practical means to intervene (Alemmaya Mulugeta and Hagmann 2008). Furthermore, natural resources such as water and land are embedded in a wider system of resources (symbolic and material), and institutions are, of course, central not only in regulating access to them, but also in mitigating potential conflicts related to them. This applies even more in cases of international tensions or conflicts, as has been shown in the research on the Nile Basin mentioned above (Mason 2004; Yacob Arsano 2007; Luzi 2008). Whether or not resource scarcity is likely to actually lead to conflict depends largely on the way the institutions concerned deal with the issue. They are much better equipped to solve or transform potential conflicts if they have a clear approach to resource allocation, if they can adapt to changing political and environmental conditions, and if they can promote positive-sum solutions to resource problems and incorporate structural conflict resolution mechanisms (Giordano et al 2005, p 61).

Focusing on the institutional dimension of environmental conflicts is therefore another way of taking full account of the inherently political nature of these conflicts (Hagmann 2005; Bichsel 2009). Indeed, they cannot be understood without taking into account wider processes of social and political change at the local as well as global levels. As the example of the Ethiopian lowlands mentioned above (Hagmann 2006; Alemmaya Mulugeta 2010) clearly demonstrates, conflicts over access to land, pastures, or water are often the result of struggles for power within a particular context rather than a consequence of the scarcity of the resource itself. In this sense, natural resources are as much instruments of political struggle as its ultimate objective or goal.

This is a further reason why institutions in general, and in particular state institutions, need to be brought back to the centre of analysis. Firstly, natural resources themselves, as well as the modes of social regulation that have developed around the use of such resources, are central to the political and economic basis of states. The dynamics of state formation are deeply intertwined with availability of and control over natural resources. Secondly, the definition and management of property rights, as well as the capacity to regulate access to natural resources, depend largely on the capacity of states to put in place a working judicial system and on the ways in which this system interacts with other judicial orders, especially at the local (community) level. Thirdly, and perhaps most importantly, the state itself is a material as well as symbolic resource that directly influences the way in which potential conflicts over the environment actually develop. This was already the case

in colonial Africa, where control over land, for instance, usually went hand in hand with the emergence of the social groups that eventually formed the backbone of the post-colonial state (Boone 2003). This is also very clearly illustrated by the consequences of the politics of ethnic federalism and decentralisation adopted in Ethiopia since 1991 (Hagmann 2006), or in post-Soviet Central Asia (Bichsel 2009).

And herein lies another risk of oversimplification in current debates about the effects of climate change. One of the underlying assumptions of catastrophist discourses on the risk of violent conflicts as a consequence of climate change is that the effects of increased scarcity of natural resources will hit so-called 'weak' or 'fragile' states much harder than others. As we have shown here, properly functioning institutions do have a critical role to play in the prevention, mitigation, and resolution of violent conflicts, and accordingly, institutionally stable states can be an asset in the context of environmental stress. However, the 'fragile state' discourse is a strongly normative one which does not allow for understanding of the dynamics of state formation and the ways in which power relations are institutionalised in particular settings. Indeed, states are identified as 'weak', 'fragile', or even 'failed' and 'collapsed' "not by what they are, but by what they are not, namely, successful in comparison to Western states" (Hill 2005, p 148). In the context of climate change, it is therefore crucial to analyse how issues such as the regulation of access to natural resources, the distribution of land and pastures, the availability of fresh water through distribution networks, or even the sharing of international waters are embedded in dynamics of power distribution and institutionalisation. In other words, the environment is but one resource among many others for which social actors strive and struggle, rather than the ultimate cause of violence in contexts of resource scarcity, as the reports of the IPCC and of the WBGU seem to imply. Finally, it should be investigated how the environment is embedded in processes of 'negotiating statehood' (Hagmann and Péclard 2010), that is, in social and political struggles for control over the regulation of social life, at the local and global levels.

Directing the focus, as we are suggesting, on issues of governance and institutional settings when dealing with so-called environmental conflicts has implications for research, of course, but also for the policies of international actors such as the United Nations. Indeed, in the United Nations system there is a strong tendency to separate environmental from political issues – or even worse, to reduce politics to ecology as mentioned above in the introduction.[8] Against this tendency, the research perspective we have synthe-

sised here underlines the primary importance of the modes of interaction and governance chosen by the parties concerned themselves. There is no empirical evidence that the need for multiple parties to accommodate their joint use of renewable natural resources such as land or water will more often lead to violent conflicts than to cooperation. If violence occurs, its causes have to be sought also in the human, social, and political dimensions of the conflict in question, and not solely in its ecological aspects. Similarly, peacebuilding strategies and modes of intervention devised with a view to mitigating such conflicts need to focus on what is so often the 'missing link' in the debate: on the institutional dimension.

Endnotes

Full citation for this article:
Goetschel L, Péclard D. 2011. The missing link: Environmental change, institutions, and violent conflicts. *In:* Wiesmann U, Hurni H, editors; with an international group of co-editors. *Research for Sustainable Development: Foundations, Experiences, and Perspectives*. Perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South, University of Bern, Vol. 6. Bern, Switzerland: Geographica Bernensia, pp 451–466.

Acknowledgements:
The authors acknowledge support from the Swiss National Centre of Competence in Research (NCCR) North-South: Research Partnerships for Mitigating Syndromes of Global Change, co-funded by the Swiss National Science Foundation (SNSF), the Swiss Agency for Development and Cooperation (SDC), and the participating institutions.

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[3] Between 2001 and 2006, a total of 10 PhD dissertations focusing on 'environmental conflicts' were completed at the Swiss Peace Foundation (swisspeace) in Bern, Switzerland, and with partner institutions in Switzerland and in the South. The main results of these projects are briefly presented below. For a list of dissertations as well as information on current projects, see www.swisspeace.org.

[4] See Hagmann (2005) and Breitmeier (2009) for a critical appraisal of the two research programmes.

[5] For a practical note on NGO work and conflict prevention in the water sector in Ethiopia, see Bonzi (2006).

[6] Regarding this tendency in Central Asia, see for example Slim (2002) or Tabyshalieva (1999). For general perspectives on the link between water resources and conflict, see Spillmann (2000) and Haftendort (2000).

[7] In a very different context, see Ferguson (1990).

[8] See also Alluri et al (2008), Maurer (2009).

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