



# Climate Change, Hydro-conflicts and Human Security: Achievements of and Gaps in Current Policies

## 1<sup>st</sup> Policy Brief

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## Summary

In recent years it has almost become conventional wisdom that climate change is a threat to human security. The media's "Future Wars over Water" headlines and NGO statements have been most visible, but other social actors have also established a link, albeit not as apocalyptic, between climate change and human security. Both politicians and scientists have called climate change a conflict trigger or multiplier. And indeed, there is growing evidence that climate induced changes in water resources have a strong potential to instigate conflicts and a growing consensus in the scientific community that climate change, in conjunction with other factors, poses a challenge to social stability. In a nutshell: climate change has considerable potential to trigger and multiply conflict.

However, and in contrast with the ubiquitousness of the headlines, empirically-based research on the relationship between climate change, resource scarcity and conflict is often absent. Research that does address both climate change and conflicts is generally confined to a few selected case studies, rarely going beyond the conventional wisdom that no conflict is exclusively caused or triggered by climate change-induced resource scarcity and that resources are only one aspect of conflict. Traditional research on the links between water resources and conflicts and/or cooperation is often patchwork and rarely incorporates climate change considerations such as resource variability.

With a focus on the Mediterranean, Middle East and Sahel countries (MMES), the CLICO project will address these gaps. CLICO stands for "Climate Change, Hydro-conflicts and Human Security"; CLICO is funded by the 7<sup>th</sup> EU Framework Programme. Regarding the policy aspects of climate change induced hydro-conflicts, CLICO will try to provide answers to key research questions, such as: What are adequate and effective policy instruments for preventing and addressing these types of conflicts? Should a policy response to this kind of issues be strategy-driven? Is it more effective to address the issue by integrating different policy areas, or is a flexible, somewhat fragmented approach similar to current responses the more adequate answer to the challenges being faced?

This policy brief is the first in a series of briefs presenting results of the CLICO project. This 1<sup>st</sup> policy brief presents CLICO's research agenda regarding policy responses to climate change-induced hydro-conflicts; a second policy brief showcasing preliminary results of the project will be available at the end of 2010.

## **Abstract**

In contrast with the ubiquitousness of the headlines, empirically-based research on the relationship between climate change, resource scarcity and conflict is often absent. The new EU project “Climate Change, Hydro-conflicts and Human Security” (CLICO) will address this research gap. This policy brief presents CLICO’s research agenda regarding policy responses to climate change-induced hydro-conflicts. This policy brief is the first in a series of briefs presenting results of the CLICO project, which is funded by the 7<sup>th</sup> EU Framework Programme.<sup>1</sup>

## **1 Climate Change: A Trigger for Hydro-Conflict?**

In recent years it has almost become conventional wisdom that climate change is a threat to human security. The media’s “Future Wars over Water” headlines and NGO statements have been most visible, but other social actors have also established a link, albeit not as apocalyptic, between climate change and human security. Both politicians and scientists have called climate change a conflict trigger or multiplier. Climate change is seen as a key driver for the ecological crisis behind the current conflict in Sudan’s Darfur region, with UN Secretary General Ban Ki Moon affirming that “amid the diverse social and political causes, the Darfur conflict began as an ecological crisis, arising at least in part from climate change.” Evaluations that examine motivations for future conflict also see water shortage as an important conflict driver; a prominent example is the November 2008 National Intelligence Council Report to President Obama on Global Trends 2025.

However, and in contrast with the ubiquitousness of the headlines, empirically-based research on the relationship between climate change, resource scarcity and conflict is often absent. Traditional research addressing the link between water resources and conflicts and/or cooperation has typically centred on perspectives such as political economy and institutions, economic approaches to resource distribution (e.g. benefit-sharing), legal treaties regulating international water use, or resource maximisation.<sup>2</sup> From a climate change perspective these approaches are patchwork and seldom

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<sup>1</sup> Contract number SSH-CT-2010-244443

<sup>2</sup> K.D.W. Nandalal and Slobodan P. Simonovic (2003): State-of-the-Art Report on Systems Analysis Methods for Resolution of Conflicts in Water Resources Management, UNESCO-IHP, p. 17.

incorporate climate change considerations such as resource variability. In addition, there is a lack of understanding of the link between hydro-climatic changes and socio-economic systems; as a result there is limited understanding as to when, where and how climate change may be associated with conflicts and how the nexus can be decoupled.

Research that does address both climate change and conflicts is generally confined to a few selected case studies, rarely going beyond the conventional wisdom that no conflict is exclusively caused or triggered by climate change-induced resource scarcity and that resources are only one aspect of conflict. The subject is also overshadowed by conflicts related to resource *abundance*, a driver of major conflicts which are often in the limelight of international attention: precious metals, timber, diamonds or drugs have been more often behind conflict than problems with water or soil availability. Moreover, in many cases resource scarcity has triggered cooperation. Literature suggests that hydro-cooperation between trans-boundary countries has been more frequent than hydro-conflict.

So whereas research has addressed the link between climate change and changes in resource availability and the link between resource availability and conflicts (and/or cooperation), a knowledge gap exists for empirical research on the relationship between climate change and hydro-conflicts. There are many reasons why a solid empirical data base is missing: for one, climate change is one of many other conflict drivers. Furthermore, it is not easy to determine if a conflict is climate change-induced or not, and consequences of and adaptation to climate change is by definition a projection into the future. However, there is growing evidence that climate induced changes in water resources have a strong potential to instigate conflicts and a growing consensus in the scientific community that climate change, in conjunction with other factors, poses a challenge to social stability. In a nutshell: climate change has considerable potential to trigger and multiply conflict.

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### **CLICO at a glance**

The CLICO project is designed to merge theory, empirical research and policy analysis across the Mediterranean, Middle East and Sahel countries (MMES). Case studies focussing on vulnerability and adaptive capacity within a variety of geographical and socio-economic contexts, together with climate outlooks identifying main hydro-climatic hazards, will shed light on how different hazards and vulnerability structures create different types of (in)security and conflict or cooperation. At a larger scale, analysis of newspaper articles will advance knowledge on climate change conflicts by distinguishing generic driving forces. The institutional framework of case study countries will also be analysed, and indicators for judging the adaptive institutional capacity of transboundary basins will be developed. CLICO results will provide the pieces of the puzzle of hydro-security.

## **2 What is a Policy Response to Climate Change Induced Hydro-Conflict?**

Current policy responses to the linkages between climate change, water scarcity and conflict are sketchy and random, reflecting the empirical uncertainties and gaps in scientific knowledge as well as the relative novelty of the issue. There is a lack of responses specific to climate change and water; various EU policies, for example, touch issues relevant to climate change, water resources and security, but none addresses these links directly. The European Security Strategy only goes so far as to recognize that none of the new threats being faced today are purely military and that each needs to be tackled by a mixture of both civilian and military instruments, spanning the wide range of both development and security instruments in the framework of EU external action. At the UN level, discussions on the security implications of climate change have been held on several occasions, and in recent years the security implications of climate change have been on the agenda of the Security Council, General Assembly, UNEP and UNDP. The current absence of a comprehensive overview of policy responses at all levels of governance within MMES (Mediterranean, Middle East and Sahel) countries presents an opportunity to better inter-link policies at their development stages.

However, and although environmental security has gained significantly greater attention in recent years - particularly since 2007, when the Stern Report and IPCC Reports shaped international discussions considerably - the UN has provided only limited concrete guidance on how broad security and environmental objectives can be made operational or integrated into other policy areas. While the understanding of environmental degradation and its security implications has grown over the last few years, there seems to be very little momentum in formulating the right policies and

measures to address the challenge of environmental security. It is astonishing that the potential security implications of climate change have not been met with the level of attention and resources that have been devoted to fighting terrorism, when the threat of the former is far greater. This level of UN attention, however, is only a reflection of the level of discussions in Member States.

There are **various reasons** for this lack of concrete guidance:

- There is no (common) understanding on what such guidance could consist of. As is the case with many other actors, such as the EU or the US or even academia, there is no common understanding on how to address root causes of conflict and insecurity which are environmentally related.
- Although environmental issues are firmly on the UN agenda, they tend to remain discrete topics that lack sufficient coordination across agencies and policy areas.
- Since the environment and security are truly cross-cutting issues, it is not surprising that the UN has dealt with the issues in a multitude of ways, which has led to fragmented responses and limited effectiveness. If the assumption that climate change and environmental degradation can lead to conflict is correct, the long term solution is environmental protection, a field in which the UN has a long history of activity, but not necessarily a proven record of success.
- In security circles, there is a limited understanding of environmental issues, and vice versa. This gap in understanding also applies to broader UN discussions and needs to be bridged by improved communication.

Summing up, the current lack of policy initiatives addressing the subject in the UN, the European Union and the MMES region is a product of the difficulties in determining when a conflict is climate change-induced, the gaps in scientific and policy knowledge on how the link between climate change and hydro-conflicts works, and the lack of focused attention being given to the subject in general. The current piecemeal approaches are not strategy-driven but rather react to those individual aspects of the issue that fall under other policy areas.

### **3 The Research Agenda**

A central question for the policy research to be carried out in CLICO is what an adequate policy response to climate change-induced hydro-conflict would actually look like. What are adequate and effective policy instruments for preventing and addressing these types of conflicts? Should a policy response to this kind of issues be strategy-driven? Is it more effective to address the issue by integrating different policy areas, or is a flexible, somewhat fragmented approach similar to current responses the more adequate answer to the challenges being faced? CLICO will try to provide answers to these questions.

Within this context, the policy aspect of the project will focus on identifying and analysing policies promoting adaptation, peace and security in the face of hydro-climatic hazards. The evaluation of policies covers international initiatives to local, on-the-ground programmes and informal or traditional arrangements. To gain a clear understanding on what constitutes an effective policy, the policy mapping will focus on how policies and strategies are developed, the extent to which climate change impacts and adaptation strategies are already taken into account in other policy fields, the security implications of water management problems as well as strengths and weaknesses of the institutional framework. Research questions - such as “Has there been any mainstreaming of climate change into environmental or other policies and regulations?”, “What is the level of awareness and knowledge of key actors on climate change as a driver of conflict?”, “How do water conflicts impact regions?” and “Do informal forms of institutional developments and governance on climate change adaptation exist?” – will frame the analysis. In-depth assessments of selected case studies will help in the identification of effective adaptation and conflict-prevention policy instruments and institutional capacity.

Furthermore, policy analysis and stakeholder interviews will result in an overview of the key hydro-conflict issues from droughts/floods, regional threats of climate change and their potential for conflict, as well as the current policy context of the case study countries. Through the identification of effective policy instruments and capacity needs, a suitable policy framework to integrate security, climate change adaptation and water management issues at UN, EU and national/regional levels will be developed. Furthermore, these findings will feed into the development of recommendations for improved policy mainstreaming to prevent climate-induced hydro-conflicts. By proposing what appropriate policy responses could look like and how existing ones can fit together, the project will provide a better basis for climate change policies.

This analysis is a demand-driven rather than a supply-driven approach to the needs and visions of stakeholders. Interviews with key policy experts on their expectations and demands from policies addressing climate change, droughts/floods and security issues will lead to a better understanding of stakeholder perceptions and the policy context.

Policy analysis needs to be seen in the wider context of the entire CLICO project. The vulnerability of regions in the MMES to hydro-climatic hazards as well as their adaptive capacity is a function of institutions, livelihood capabilities and access to resources needed to buffer the impact of such events. The theoretical and empirical research foreseen in CLICO is expected to close the knowledge gap on livelihood capabilities needed to ensure social stability in the face of hydro-climatic hazards as well as clarify the links between climate change, water resources, vulnerability, security and conflict. The institutional analysis will close the policy deficit and expand the knowledge on

appropriate policy responses to address the impacts of hydro-climatic hazards. Together they will advance analysis and policy to identify potential security concerns in the studied regions and provide recommendations for promoting peace and security under changing hydro-climatic conditions.