GSD RC
Governance and Social Development Resource Centre

Helpdesk Research Report: Climate Change and State Fragility
09.09.08

Query: Please provide a literature review on the theme of climate change and state fragility, especially on any significant questions or issues that are not directly related to conflict. If possible, please highlight what thinking there is around aid effectiveness for climate change adaptation in fragile situations.

Enquirer: DFID Conflict, Humanitarian and Security Department.

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1. Overview

There is very little literature available that explicitly discusses the interplay between climate change and state fragility. Most materials discuss the links between climate change and violent conflict, and the limited number of materials that do address fragile states, also focus on conflict-related aspects. Many of the experts contacted for this query agreed that this is little current research on this area and it is an important question to work on in the future.

From the information that is available, it seems that many commentators agree that there is little empirical evidence that environmental degradation increases the potential for conflict in fragile states. However, the general assumption is that, given fragile states already struggle to maintain control and legitimacy in current conditions, the social and economic impacts of climate change are likely to generate demands which they will be unable to meet and may be overwhelmed by. In fact, increased demand for adaptation and mitigation activities may divert resources for fulfilling their core functions and this may lead to further destabilisation. There is also concern that these same pressures may serve to increase the number of fragile states.

In the absence of literature that directly addresses the question, this query takes as its starting point the literature on vulnerability which notes that one of the key factors upon which the vulnerability of people to climate change depends is the extent to which they can adapt to changes to the climate sensitive resources and services that they rely upon. This ability to adapt is based on a broad range of social factors, including poverty, support from the state, access to economic opportunities, the effectiveness of decision making processes, and the extent of social cohesion within and surrounding vulnerable groups. These factors are all linked to the state's capacity to provide services and maintain institutions – also a defining factor for state fragility. Hence, many of the materials in this query report focus on environmental impacts and the capacity of state institutions to respond to environmental change and stress. Many of these materials do not specifically address fragile states but it is hoped that the trends identified may be relevant.

There is also very little information on aid effectiveness and climate change in fragile situations. Most analysts emphasise the need for the international community to carry out further research in this area. Some of the materials below include recommendations for development assistance. These highlight that merely increasing financial assistance will not be enough. In the absence of state capacity, donors must learn to work with multiple local actors, whilst ensuring government engagement and capacity building. This will require designing appropriate financial mechanisms, as well as long-term engagement.

2. Key Documents

General

Cammack, D., 2007, 'Understanding the Political Economy of Climate Change is Vital to Tackling It', Overseas Development Institute, London
http://www.odi.org.uk/publications/opinions/92-diana-cammack-political-economy-climate-change.pdf

This brief highlights that one of the key issues identified by development specialists is that of climate change in fragile states. The author argues: "Climate change is already recognised as a threat multiplier, but analysis would be improved if the discussion were placed within the context of fragile states. Why fragile states - which are variously defined as poor performers, conflict and/or post-conflict states - function differently from other countries, and why they have trouble absorbing and using aid effectively are key questions that should be considered by anyone planning to assist communities that are already weak, or are being weakened by climate change. Analysts working on resilience and climate change are furthest ahead, but even they acknowledge that issues of power and social equity are being given insufficient weight. It does little good to say that peacebuilding is necessary and that communities should participate, unless there is an understanding of the long-standing constraints upon both. How to tackle problems related to strengthening weak capacity, state-building, sequencing of assistance, and addressing conflict have already been thought through by fragile-state specialists, and their lessons should be considered by those working on climate change." (p. 1)

"Climate Change and Non-Traditional Security: Beyond Climate Wars?", Seminar Report, Nanyang Technological University, Singapore
http://www.rsis.edu.sg/nts/events/lorraine-elliott.html

This presentation reviewed recent arguments that have dominated the 'climate security' debate in the international arena. It addressed three broad areas – 'climate war' triggers; 'climate war' pathways; and the implications for security. With regard to the second, Dr Elliot notes four pathways:

- ➢ The physical impacts of climate change would make various kinds of critical infrastructure would be made vulnerable. This would include 'hard' infrastructure such as coastal port facilities, oil refineries and transportation networks, and 'soft' infrastructure such as health systems.
- ➢ The resilience and adaptive capacity of governments would become overstretched. The social and economic impacts of climate change in poorer countries and in poorer parts of rich countries are likely to generate greater demands for effective response which many governments are unable to meet. In those states which are economically weak, the range of income possibilities would become narrowed and the state deprived of resources with which to meet people's needs. The consequences of this

range along a continuum from civil unrest through intercommunal violence to political radicalization and, in extreme situations, state collapse.
- ➢ There would be security consequences of increased migration pressures. While migration does not itself lead directly to conflict, it can alter the ethnic composition and/or population distribution within and between states, which can increase the potential for instability and conflict - particularly in situation of resource scarcity, and in already sensitive cross-border areas.
- ➢ Climate change could potentially to fuel a politics of resentment, resulting from competition for scarce resources as well as inequitable access to resources between and among identity-groups within social and political communities or where livelihood choices are contracted.

Dr Elliott concluded by noting that what is ultimately missing in addressing the problem of climate change as a security threat, is the lack of focus on human security. "The list of human security challenges that arise from climate change is, potentially, a long one and one that recasts the impact of climate insecurities. In light of these insecurities, to focus on climate change only as a security threat that generates instability conflict and social unrest only understands part of the bigger picture. By focusing on human security, it reinforces the importance of adaptation strategies as well as mitigation. Moreover, the human security model for adaption suggests that this cannot be a process of 'top-down' technocratic responses."

Smith, D. and Vivekananda, J., 2007, 'A Climate of Conflict: The Links between Climate Change, Peace and War', International Alert, London
http://www.international-alert.org/pdf/A_Climate_Of_Conflict.pdf
Note: The summary below is adapted from the GSDRC website:
http://www.gsdrc.org/go/display&type=Document&id=2976

This report finds that in fragile states the consequences of climate change can interact with existing socio-political and economic tensions, compounding the causal tensions underlying violent conflict. The authors argue that understanding how the effects of climate change will interact with socio-economic and political problems means tracing the consequences of climate change. This process highlights four key elements of risk – political instability, economic weakness, food insecurity and large-scale migration. The most vulnerable communities with the weakest adaptive capacity are in fragile states. The report makes the following key points:

- ➢ There are 46 countries in which the effects of climate change interacting with social, economic and political problems will create a high risk of violent conflict.
- ➢ There are a further 56 countries where governments will struggle to handle climate change. This creates a high risk of political instability, with the potential for violent conflict in the longer term.
- ➢ Most of the countries facing climate change and violent conflict cannot be expected to adapt alone. Some of them lack the will, more lack the capacity and some lack both.
- ➢ International cooperation is required to support local action, both as a way of strengthening international security and to achieve the goals of sustainable development.
- ➢ Enhancing the ability of communities to adapt to the consequences of climate change reduces the risk of conflict. Peacebuilding activities, addressing socio-economic instability and weak governance, enhance the ability of communities to adapt to climate change.
- ➢ Policies and strategies for development, peacebuilding and climate change are often disconnected and divergent. However, peacebuilding and adaptation are effectively the same kind of activity, requiring inclusive and transparent social engagement.

The report also makes some recommendations for addressing climate change in fragile states:

➢ Move conflict and climate change higher up the international agenda. This includes developing guidelines regarding adaptation and making adequate funding available.
➢ Research the indirect local consequences of climate change and develop and spread research competence through universities and networks. Improve knowledge and generate policy through dialogue at local, national, regional and international levels.
➢ Prioritise adaptation over mitigation in fragile states to address the consequences of climate change to prevent conflict. Developing competence on adaptation needs to be part of good governance everywhere.
➢ Ensure National Adaptation Plans of Action are conflict-sensitive, taking account of the socio-political and economic context. Prepare to manage migration through research to identify likely migration flows.
➢ Link together international frameworks of action regarding the related issues of peacebuilding, development, adaptation and disaster management. Peacebuilding and development strategies should include adaptation to climate change.
➢ Engage the private sector and develop guidelines to help companies identify how their core commercial operations can support adaptation.

Paavola, J., 2003, 'Vulnerability to Climate Change in Tanzania: Sources, Substance and Solution', Paper presented at the inaugural workshop of the South Africa Vulnerability Initiative (SAVI), Maputo, Mozambique, June 19-21
http://www.gechs.org/savi/workshop/maputo/papers/paavola_tanzania.pdf

This paper examines vulnerability to climate change and its sources in Tanzania. For the authors, Tanzania provided a good case study for understanding the interaction between multiple sources of vulnerability and the role of state because while not dysfunctional or dictatorial, the Tanzanian state was still perceived as weak and corrupt by international standards. The paper discusses climate change impacts and argues that food production, land cover changes and human health require the most attention in vulnerability analyses. Human capital, technological alternatives, levels and sources of income, inequality, and social capital and quality of institutions are important sources of vulnerability. The paper analyses these of sources of vulnerability in the context of Tanzania, placing a special emphasis on the role of social capital and quality of institutions. The authors argue: "The weak capacity of (the) public administration because of corruption and other reasons will complicate attempts to reduce vulnerability in the future. On one hand, it will reduce the effectiveness of state-centred responses. On the other hand, it will result in the use of responses where the outcomes do not depend crucially (on) state capacity. These solutions in turn have two problematic dimensions. First, these solutions may mobilise less resources than public policies would do and distribute them in the way that is not seen politically legitimate, thus introducing uncertainty regarding the permanence of these solutions. Secondly, they would divert attention away from the improvement of state capacity." (p. 19)

The report also highlights the relationship between institutions and economic growth: "(E)conomic performance is related to state capacity and […] the weakness of state may impair growth experience. However, state capacity does not only influence economic performance: it has an impact on the attainment of all social and political goals, including goals related to the environment and the reduction of environmental and other risks (Paavola, 2002). Therefore, the state can be both an instrument and an obstacle for the reduction of vulnerabilities." Hence, "the lack of state capacity cannot be resolved by building the efforts to reduce vulnerability and to adapt exclusively on the individuals' own initiative and civil society organisations. Capacity and state building are necessarily a part and parcel of reduction of vulnerability." (p. 3)

Furthermore, in Tanzania, "(t)he dependence of rural communities on environmental resources suggests that the governance of these resources in a sustainable manner should be one priority area for action in the future. Effective environmental governance could maintain a degree of self-sufficiency needed to overcome periods of drought, flooding and other periods of environmental stress. Because of the central government's lack of capacity, especially implementation authority, governance solutions have to build on user participation at the local level. … However, the governance solution cannot be a completely decentralised one, in part because local collective entities cannot necessarily be trusted to function well and in part to facilitate the learning and transfer of lessons from one location to another one. Sharing of functions between the central government, intermediate levels of administration and local communities is likely to be the most feasible solution." (p.20)

Bierman, F. and Dingwerth, K., 2004, 'Global Environmental Change and the Nation State', Global Environmental Politics, vol. 4, no. 1, pp. 1-22
http://www.glogov.org/images/doc/Biermann_Dingwerth(2004).pdf

This article argues that global environmental change decreases the capacity of nation states to fulfill their definitional functions without the cooperation of other states. Added stress due to environmental change also increases the demand for the adaptive capacities of nation states, which in turn diminishes their resources to fulfill other core functions. The authors argue: "The vulnerability, adaptive capacity and disaster preparedness of nation states are therefore inextricably linked to the level of economic development as well as to a number of additional socioeconomic factors. As a general statement, however, global environmental change, by requiring states to prepare for and adapt to its consequences, increases the demand for the administrative, organizational, technological and financial capacity of the nation state - a demand which some states will find easier to meet than others." (p. 3)

The article also outlines some of the implications of environmental change for nation states: "(T)he added stress that global environmental change puts on nation states makes the fulfillment of other state functions such as guaranteeing political participation and creating certain minimal social conditions that allow for individual freedom more difficult for many states to achieve. Thus, where additional capacities are required, decision-making may become more hierarchically structured in order to save time and resources, thus allowing for less participation; whereas the guarantee of minimal social conditions will become the more difficult the more numerous and complex the demands on the capacities of less developed states become as a result of the global transformations sketched above. Given these transformations, the creation of a knowledge-based infrastructure to avoid uncontrollable risks is likely to become an even more important core function of the nation state. However, as with most other functions, its fulfillment depends to a great deal on the capacities states have at their disposal - which seem, again, to be more restricted in developing countries, and which are likely to decrease as a result of the additional stress on nation states due to global environmental change." (p. 5)

The article goes on to focus on the various ways in which states may mitigate, or adapt to, the impacts of global environmental change, including what the author terms 'horizontal diffusionism' and 'vertical institutionalism'. The authors also argue for a reconsideration of key theoretical concepts such as sovereignty, agency, and multilevel governance in order to improve understanding of the complexities of global environmental governance.

German Advisory Council on Global Change, 2008, 'Climate Change as a Security Risk', Earthscan, London/Sterling
http://www.wbgu.de/wbgu_jg2007_engl.pdf

Chapter 4 of this report 'Rising conflict risks due to state fragility and a changing world order', argues that the number of weak and fragile states could increase further as a result of climate change. It also argues that many countries which are already characterised by state fragility will be affected in two ways: they will be exposed to a relatively severe degree to the impacts of climate change, and will have only limited capacity to respond to them. Section 4.2.2 (pp. 44-45) outlines the potential destabilising effects of environmental degradation:

> ➢ "Regional and local environmental changes whose intensity is increased by global influences can operate as destabilising factors if they lead to genuine impairment of the state's capacity to perform its core functions. For example, storm and flood disasters can be a typical trigger for destabilisation.
> ➢ Increased environmental stress resulting from progressive environmental degradation itself operates as a structural factor which can take a variety of forms (e.g. air pollution, water contamination, toxic waste). The effects of environmental degradation are often only visible over the long term, but then may reach a critical level which can also trigger destabilisation and violent conflicts (the pollution of the Niger Delta by the oil industry is a case in point). Such destabilisation can affect the domestic constitutional structure of individual states as well as interstate relations. Weak and fragile states can thus have an indirect 'spillover' effect on the wider region and on the international community as a whole.
> ➢ There is little empirical evidence to suggest that the high conflict relevance of weak and fragile states is significantly increased by environmental degradation. Wherever destabilisation and state failure processes have been described to date, a variety of factors has always come into play. One issue which should be considered, however, is whether and to what extent this might change in future if environmental stress and possible conflict constellations arise on a hitherto unprecedented scale."

The report goes on to argue: "Weak and fragile states have inadequate capacities to guarantee the core functions of the state, notably the state's monopoly on the use of force, and therefore already pose a major challenge for the international community. So far, however, the international community has failed to summon the political will or provide the necessary financial resources to support the long-term stabilization of these countries. Moreover, the impacts of unabated climate change would hit these countries especially hard, further limiting and eventually overstretching their problem-solving capacities. Conflict constellations may also be mutually reinforcing, e.g. if they extend beyond the directly affected region through environmental migration and thus destabilize other neighbouring states. This could ultimately lead to the emergence of "failing subregions" consisting of several simultaneously overstretched states, creating "black holes" in world politics that are characterized by the collapse of law and public order, i.e. the pillars of security and stability. It is uncertain at present whether, against the backdrop of more intensive climate impacts, the international community would be able to curb this erosion process effectively." (p. 5)

The CNA Corporation, 2007, 'National Security and the Threat of Climate Change' The CAN Corporation, Alexandria, US
http://securityandclimate.cna.org/report/National%20Security%20and%20the%20Threat%20of%20Climate%20Change.pdf

The purpose of this study is to examine the national security consequences of climate change. It argues: "Many governments in Asia, Africa, and the Middle East are already on edge in terms of their ability to provide basic needs: food, water, shelter and stability. Projected climate change will exacerbate the problems in these regions and add to the problems of effective governance. Unlike most conventional security threats that involve a single entity acting in specific ways at different points in time, climate change has the potential to result in multiple chronic conditions, occurring globally within the same time frame. Economic and environmental conditions in these already fragile areas will further

erode as food production declines, diseases increase, clean water becomes increasingly scarce, and populations migrate in search of resources. Weakened and failing governments, with an already thin margin for survival, foster the conditions for internal conflict, extremism, and movement toward increased authoritarianism and radical ideologies […] Because climate change also has the potential to create natural and humanitarian disasters on a scale far beyond those we see today, its consequences will likely foster political instability where societal demands exceed the capacity of governments to cope." (p. 44)

In the Middle East for example, the report argues: "Climate change has the potential to exacerbate tensions over water as precipitation patterns change, declining by as much as 60 percent in some areas. In addition, the region already suffers from fragile governments and infrastructures, and as a result is susceptible to natural disasters. Overlaying this is a long history of animosity among countries and religious groups. With most of the world's oil being in the Middle East and the industrialized and industrializing nations competing for this resource, the potential for escalating tensions, economic disruption, and armed conflict is great." (p. 30)

Smith, P. J., 2007, 'Climate Change, Weak States and the "War on Terrorism" in South and Southeast Asia', Contemporary Southeast Asia: A Journal of International and Strategic Affairs, Vol. 29, No. 2, pp. 264-285
This article is available for purchase from Project Muse:
http://muse.jhu.edu/login?uri=/journals/contemporary_southeast_asia_a_journal_of_internatio nal_and_strategic_affairs/v029/29.2smith01.pdf

This article argues that climate change threatens to undermine the US Government's objective of working with well-governed states that have the capacity and willingness to cooperate on counter-terrorism efforts. For example, several countries are geographically situated in areas that may be strongly affected by climate change. In particular, Indonesia, the Philippines, and Bangladesh demonstrate the nexus between possible climate change effects and counter-terrorism. In these countries, increased poverty and reduced state capacity - a foreseeable outcome of predicted climate change events - contribute to the creation or sustenance of functional space which may allow terrorists to operate. The author argues: "Environmental disasters — some believed to be possibly linked to climate change — have already demonstrated their ability to render weak states weaker and ungoverned spaces larger […] One of the concerns for U.S. policymakers is Nigeria, a key anchor state in Western Africa and major exporter of oil. John McConnell, Director of National Intelligence, recently warned the Senate Armed Services Committee of possible political instability in Nigeria. He stated that the government's institutional foundations are "hollow from decades of neglect and corruption and will continue to make the country susceptible to recurring crises in the coming years" (McConnell 2007). In addition, Nigeria suffers from sectarian clashes, partially generated by religious differences between a largely Muslim north and a predominantly Christian south. Climate change, and its various effects, will only compound these challenges and likely contribute to internal violence." (p. 270)

For the author, "(c)limate change, rather than being a direct "root cause" of terrorism acts instead as an overarching destabilizing element that fosters the enabling environment for non-state actor terrorist groups. For terrorists to thrive and to be effective, they require as much functional space — defined broadly as "the freedom to carry out the various activities necessary to support the terrorist agenda" (Ramakrishna 2005, p. 146) — as a particular piece of territory or state will allow. Poverty and reduced state capacity, a foreseeable outcome of predicted climate change events, contribute to the creation or sustenance of this functional space, and can thus provide the critical political opening for terrorist groups — or their precursor political organizations — to gain a foothold within a state, acquire power or legitimacy and ultimately further their terrorist objectives." (p. 272)

Book: Liotta, P., 2003, 'The Uncertain Certainty: Human Security, Environmental Change and the Future Euro-Mediterranean', Lexington Books, Lanham, US
This book is available from Lexington Books:
http://www.lexingtonbooks.com/Catalog/SingleBook.shtml?command=Search&db=^DB/CATALOG.db&eqSKUdata=0739105787

A preview is also available from Google Books:
http://books.google.co.uk/books?id=14YtmJsjmg8C&printsec=frontcover&dq=environmental+change+state+failure&source=gbs_summary_r&cad=0

The final essay of this book 'The Uncertain Certainty: Environmental Stress Indicators and the Euro-Mediterranean Space' (pp. 69-92) argues that environmental and human security are an evolving and contested concept. "Yet the *vulnerability* aspects that these security issues involve present serious long-term challenges to the success and stability of the Euro-Meditaterranean region. Thus, (this chapter) argues that there are crucial differences between *threats* and *vulnerabilities*, distinguishes between the two and suggests relevant policy applications for the Euro-Mediterranean. The analysis includes a review of complex theoretical and mathematical models that have been proposed in "second" and "third" wave environmental research and considers their relevance to the region. Specifically this review […] consider(s) what have been argued as "trigger mechanisms" that can unleash violent conflict, create socioeconomic disparity, and induce long-term insecurity. Finally a number of policy issues relevant to future research are considered as bases for stabilizing and support foundations during periods of future change and crises" (p. xxiii).

Pages 82-83 of Chapter 3 highlight the State Failure Project Phase II 'Mediated Environmental Model' which investigated the impact of environmental change on material well-being as a function of national resource vulnerability and a state's institutional capacity to respond to the stressors associated with environmental change (Page 83 is not included in the preview).

Urbanisation

Satterthwaite, D., 2008, 'Climate Change and Urbanizations: Effects and Implications for Urban Governance', Paper prepared for United National Expert Group Meeting on Population, Distribution, Urbanization, Internal Migration and Development, New York, January 21-23, pp. 309-
http://www.un.org/esa/population/meetings/EGM_PopDist/EGM_PopDist_Report.pdf

This article focuses on the effects of climate change on urban areas in low- and middle-income countries and argues that there is a critical need to address adaptation here, as these nations have most of the world's urban population, most of the high-risk urban sites and the largest deficiencies in adaptive capacity. The author argues that the capacity of the government, both at national and local levels, influences the levels of risk from climate change for those with limited incomes or assets by providing for infrastructure and land-use management; disaster-preparedness; disaster-response and reconstruction; the extent to which poorer groups can buy, build or rent "safe" housing in "safe" sites; and an enabling environment for local civil-society action to contribute towards addressing the practical aims identified above.

The article also addresses the role of development assistance: "(I)ncreasing funding flows for adaptation will not achieve much unless there is the local government capacity to use it well and to work well with groups most at risk. Developing more competent and accountable city and municipal governments is a complex and usually highly contested process […] If development assistance agencies accept the need to support more competent, effective,

accountable pro-poor city and municipal governments – for climate change adaptation and also for more effective development – it will need some significant changes in how they structure development assistance. It will need their long-term engagement with supporting this and innovative financial systems that allow support to flow rapidly and easily to a multiplicity of locally-determined initiatives. What is possible and what should be prioritised in any nation obviously depends on the competence, capacity and accountability of local governments." (p. 326)

Additional Resources

Book: Kahl, C., 2006, 'States, Scarcity and Civil Strife in the Developing World', Princeton University Press, New Jersey
This book is available for purchase from Princeton University Press:
http://press.princeton.edu/titles/8208.html
Note: I have not been able to review this book. The summary below is adapted from the publisher's website.

This book argues that demographic and environmental stress, i.e. the interactions between rapid population growth, environmental degradation, inequality, and emerging scarcities of natural resources, represents an important source of turmoil in today's world. The author contends that this type of stress places enormous strains on both societies and governments in poor countries, increasing their vulnerability to armed conflict. He identifies two pathways whereby this process unfolds: state failure and state exploitation. State failure conflicts occur when population growth, environmental degradation, and resource inequality weaken the capacity, legitimacy, and cohesion of governments, thereby expanding the opportunities and incentives for rebellion and intergroup violence. State exploitation conflicts, in contrast, occur when political leaders themselves capitalise on the opportunities arising from population pressures, natural resource scarcities, and related social grievances to instigate violence that serves their parochial interests. The book argues that demographically and environmentally induced conflicts are most likely to occur in countries that are deeply split along ethnic, religious, regional, or class lines, and which have highly exclusive and discriminatory political systems. The empirical portion of the book evaluates the theoretical argument through in-depth case studies of civil strife in the Philippines, Kenya, and numerous other countries. The book concludes with an analysis of the challenges demographic and environmental change will pose to international security in the decades ahead.

Barnett, J. and Adger, N. W., 2007, 'Climate Change, Human Security and Violent Conflict', Political Geography, Vol. 26, pp. 639-655
This article is available for purchase from Science Direct:
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VG2-4NS368W-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_version=1&_urlVersion=0&_userid=10&md5=ed9c683e8eaf8b505c0c576aa8e4a81b

This paper integrates three bodies of research, i.e. on the vulnerability of local places and social groups to climate change; on livelihoods and violent conflict; and on the role of the state in development and peacemaking, to offer new insights into the relationships between climate change, human security, and violent conflict. It explains that climate change will continue to undermine human security in the future, by reducing access to, and the quality of, natural resources that are needed to sustain livelihoods. Climate change is also likely to undermine the capacity of states to provide the opportunities and services that help people to sustain their livelihoods. The authors suggest that in certain circumstances these direct and indirect impacts of climate change on human security may in turn increase the risk of violent conflict. Yet these connections between climate change, human security, the state and violent conflict are not empirically proven. Hence, the paper outlines a research agenda for

empirical investigations into the risks climate change poses to human security and peace, and the extent to which contraction in livelihoods, poverty, weak states, and immigration are risk factors.

3. Additional information

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Websites visited

Google, Google Scholar, Eldis, Stockholm Environment Institute, Climatic Research Unit, University of East Anglia, Global Environmental Change and Human Security, Environmental Chnage and Security Programme (Woodrow Wilson International Center for Scholars), International Institute for Environment and Development (IIED), Brookings Institution, Institute of Development Studies, Overseas Development Institute, Tyndall Centre for Climate Change Research, United Nations Environment Programme, Intergovernmental Panel on Climate Change, Crisis States Research Centre, Potsdam Institute for Climate Impact Research, UCL Environmental Change Research Centre, Asia-Pacific Network on Climate Change, International Alert, US Army War College, Development Research Centre on Migration, Globalisation and Poverty

About Helpdesk research reports: Helpdesk reports are based on 2 days of desk-based research. They are designed to provide a brief overview of the key issues; and a summary of some of the best literature available. Experts are contacted during the course of the research, and those able to provide input within the short time-frame are acknowledged. For further information and examples of helpdesk reports, see: http://www.gsdrc.org/go/research-helpdesk