

## Helpdesk Research Report: Climate Change and Governance

18<sup>th</sup> May 2007

**Query:** Please identify key readings on the political and institutional implications of climate change on governance in developing countries.

**Enquirer:** DFID Policy and Research Division

### 1. Overview

#### 2. Key documents

- Mitigation of climate change
- Adapting to climate change
- Resilience to climate change
- Community-based adaptation to climate change
- Gender and climate change
- Climate as a development issue
- Other Helpdesk Queries

### 1. Overview

From the literature surveyed in this query it is possible to make some broad observations. By their nature, the problems created by climate change cut into the core of economic activities in fields such as transport, energy, public health, agriculture and forestry. In addition, policies linked to both reducing greenhouse gases and adapting to the impacts of climate change are closely linked to broader development issues.

The risks posed both by extreme weather events and systemic changes to our reliance on fossil fuels are significant. For developing countries, the story is further complicated by a lack of financial, social and institutional resources needed to face the threat of climate change. Although the challenges faced by the South in coming to terms with the impacts of climate change are slowly being acknowledged in international policy circles, policies to address these challenges effectively have yet to be designed and implemented.

Climate change mitigation is a global concern requiring global responses. It is about tackling the causes of climate change. Much of the literature, therefore, is on a global level. For this reason it is not included in this query. Adaptation to climate change is a localised concern and will take different forms in different contexts. It is about minimising the consequences of climate change. Some of the more pertinent literature on adaptation forms the bulk of this query response.

Work examining how climate change adaptation knowledge is transferred, the links between mitigation and adaptation and on how institutional and organisational structures contribute to adaptive capacity is beginning to emerge. However, considerable gaps still exist; particularly with research exploring good governance and the design of institutional architecture for adaptation at national, regional and local levels and with studies about how vulnerable communities can be linked more closely into national and international climate policy-making.

## 2. Key documents

### Mitigation of climate change

One document on mitigation is included because it is a discussion at national level of mitigation by some of the largest developing country emitters of greenhouse gases.

This report is a set of case studies on some of the developing world's largest emitters of GHG - Brazil, China, India, Mexico, South Africa, and Turkey. Its conclusions include:

- Many developing countries are already taking action that is significantly reducing their greenhouse gas emissions growth.
- These efforts are driven not by climate policy but by imperatives for development and poverty alleviation, local environmental protection, and energy security.
- Developing nations offer large opportunities for further emissions mitigation, but competing demands for resources may hamper progress.
- Developing countries can use policies to leverage human capacity, investment, and technology to capture large-scale mitigation opportunities, while simultaneously augmenting their development goals.

The report also identifies some common barriers to climate mitigation:

- Lack of good data impedes efforts to identify and realize mitigation potential.
- Insufficient human capacity to analyze energy and emission futures, identify mitigation opportunities, execute economic reforms, and cultivate investment opportunities.
- Public control of at least a portion of energy resources prevents the emergence of more efficient private actors.
- A range of institutional factors - from the absence of transparency and rule of law to the extra risk associated with nontraditional energy investment - impedes investment and technology transfer that would contribute to emission mitigation.

- Chandler, W., et al, 2002, 'Climate Change Mitigation in Developing Countries', Pew Center on Global Climate Change. Available electronically. Please see <http://www.pnl.gov/aisu/pubs/CCMitDevCo.pdf>

There is a useful (i.e. brief and covering a range of climate change topics) set of items in the following ID21 Insights:

- ID21, 2004, 'Securing Development in the Face of Climate Change', Insights, no. 53 December. Available electronically. Please see <http://www.id21.org/insights/insights53/index.html>

### Adapting to climate change

As noted above, mitigation of climate change is the most written about aspect at national and local levels for developing countries. Whilst the governance issues are not always made explicit, the following documents all deal with some aspect climate change governance at national or local levels.

The first two documents are from a special issue of Climatic Change dealing with governance issues. The first is an editorial and usefully gives the context for adaptation. The second looks at markets and governments through an economist lens.

- Thompson, A. et al, 2006, 'Economy, Politics and Institutions: From Adaptation to Adaptive Management in Climate Change', Climatic Change, vol. 78, no. 1, September. Document attached. Please see Thompsonetal2006.pdf
- Mendelsohn, R., 2006, 'The Role of Markets and Governments in Helping Society Adapt to a Changing Climate', Climatic Change, vol. 78, no. 1, September. Document attached. Please see Mendelsohn2006.pdf

The Science and Development Network ([www.scidev.net](http://www.scidev.net)) carries a useful collection of articles, features and news from developing countries in its 'dossier' on climate change, with a section on 'adaptation to climate change'.

- See <http://www.scidev.net/dossiers/index.cfm?fuseaction=dossierItem&Dossier=4>.

and

- Adapting to climate change: why and how Saleemul Huq and Richard J.T. Klein December 2003  
<http://www.scidev.net/dossiers/index.cfm?fuseaction=policybrief&policy=44&dossier=4>

The next document is a four-page summary of the challenges of adaptation.

- UK Parliamentary Office of Science and Technology, 2006, 'Adapting to Climate Change in Developing Countries, October. Available electronically. Please see <http://www.parliament.uk/documents/upload/postpn269.pdf>

Mitchell and Tanner ask why should climate change adaptation interest development agencies? Their response in the first four sections

- Because climate change threatens progress on poverty reduction
- Because adaptation has equity and justice dimensions
- Because poverty issues are central to climate change debates
- Because adaptation should be linked to debates on reducing greenhouse gas emissions

The final section presents some challenges for development agencies, particularly NGOs. The summary of these is as follows:

- Agencies need to raise awareness among partners and make their programmes more resilient to climate change impacts. They also need to advocate for action by others on climate change and adaptation.
- Development NGOs will need to plan their adaptation activities carefully to ensure that they are consistent with poverty reduction policies, plans and programmes. This may require strategic assessment of the role of adaptation in their programmes, as well as supporting mainstreaming in developing countries.
- The focus of international negotiations in the UNFCCC on climate change, rather than current climate variability, may not be helpful to development NGOs. However, they may need to engage with the debate so they can emphasise that the separation is not helpful in practical terms on the ground for poor and vulnerable groups. They can link climate change to other related areas such as disaster risk reduction and sustainable development.
- Vulnerable groups must work on climate change adaptation from the starting point of current variability. Integrating the impacts of future changes into vulnerability reduction remains a significant challenge at policy and strategic levels, as well as in communities and households.
  - Mitchell, T. and Tanner, T., 2006, 'Adapting to Climate Change: Challenges and Opportunities for the Development Community', Tearfund. Available electronically. Please see <http://www.tearfund.org/webdocs/website/Campaigning/policy%20and%20research/Adapting%20to%20climate%20change%20discussion%20paper.pdf>

The official UNFCCC (United Nations Framework Convention on Climate Change) rationale for National Adaptation Programmes of Action (NAPAs) is to "provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. The rationale for NAPAs rests on the limited ability of LDCs to adapt to the adverse effects of climate change. In order to address the urgent adaptation needs of LDCs, a new approach was needed that would focus on enhancing adaptive capacity to climate variability, which itself would help address the adverse effects of climate change. The NAPA takes into account existing coping strategies at

the grassroots level, and builds upon that to identify priority activities, rather than focusing on scenario-based modelling to assess future vulnerability and long-term policy at state level. In the NAPA process, prominence is given to community-level input as an important source of information, recognizing that grassroots communities are the main stakeholders.”

On a cursory reading of the existing 15 NAPAs, there is little evidence that political or institutional factors in adaptation strategies are taken into account. There is a strong emphasis on practical measures for adaptation but little or no discussion of the capacities for or political constraints on such measures.

- See the current list of country NAPAs (downloadable) at [http://unfccc.int/national\\_reports/napa/items/2719.php](http://unfccc.int/national_reports/napa/items/2719.php)

The following two papers argue for the use of the concept of social capital and for an investigation of informal institutions (the shadow system) in order to understand adaptive behaviour. The first paper also has a useful bibliography for the purposes of this query.

- Pelling, M. and High, C., 2005, 'Understanding Adaptation: What can Social Capital Offer Assessments of Adaptive Capacity?', *Global Environmental Change* vol. 15, pp. 308–319. Document attached. See [PellingHigh2005.pdf](#)
- High, C., Pelling, M. and Rengasamy, S., 2004, 'Local Agency, Adaptation and the Shadow System: The institutional Architecture of Social Learning in Rural Areas of the UK and India', Paper for the XI World Congress on Rural Sociology. Trondheim, Norway July 25-30. Available electronically. Please see <http://www.rcc.rures.net/documents/High2004.pdf>

Chris High, part author of the above papers, noted the following in an email to me: “Having read an awful lot of the stuff around in 2003-2004, I'd say that in the UK Neil Adger is the leading social scientist with respect to climate change, social institutions and governance.” Here are three relevant references.

- Adger, W. N., et al, 2003, 'Adaptation to Climate Change in the Developing World', *Progress in Development Studies*, vol. 3, no. 3; p. 179. Document attached. Please see [Adgeretal2003.pdf](#)
- Adger, W.N., 2000, 'Institutional Adaptation to Environmental Risk Under the Transition in Vietnam', *Annals of the Association of American Geographers*, vol. 90, no. 4, pp. 735–738. Available electronically. Please see <http://www.jstor.org/cgi-bin/jstor/printpage/00045608/ap050004/05a00070/0.pdf?backcontext=results&dowhat=Acrobat&config=&userID=93bc8075@bham.ac.uk/01cce440601f44112ae4db894&0.pdf>
- Adger, W.N., 2001, 'Scales of Governance and Environmental Justice for Adaptation and Mitigation of Climate Change', *Journal of International Development* vol. 13, no. 7, pp. 921–931. Document attached. See [Adger2001.pdf](#)

Finally, on adaptation, you will no doubt be aware of the 2005 IDS bulletin on climate change. One or two of the articles in this are relevant to this query.

- Yamin, F. and Huq, S., 2005, 'Vulnerability, Adaptation and Climate Disasters', *IDS Bulletin*, vol.36, no. 4, October. Available in DFID library.

### **Resilience to climate change**

Lebel, L., et al., 2006 'Governance and the Capacity to Manage Resilience in Regional Social-Ecological Systems', *Ecology and Society* vol. 11, no. 1, p. 19. Available electronically. Please see <http://www.ecologyandsociety.org/vol11/iss1/art19/>

### **Community-based adaptation to climate change**

Community-based adaptation is an emerging term in the literature. It is grassroots-based participatory process of linking existing coping mechanisms for environmental stresses with new knowledge about climate change impacts. Huq explains:

- Huq, S., 2007, 'Community-Based Adaptation', An IIED Briefing', International Institute for Environment and Development (IIED). Available electronically. Please see <http://www.iied.org/pubs/pdf/full/17005IIED.pdf>

### **Gender and climate change**

There is not a great deal of literature that takes a gendered perspective on climate change but the following may be of interest.

- UNEP, 2006, 'Gender, Poverty and Environment: A Three-Way Interaction' [pp. 62-69], in 'GEO Year Book 2004/5', Global Environmental Outlook, UNEP. Available electronically. Please see [http://www.unep.org/geo/pdfs/GEO%20YEARBOOK%202004%20\(ENG\).pdf](http://www.unep.org/geo/pdfs/GEO%20YEARBOOK%202004%20(ENG).pdf)

### **Donor portfolio screening**

This paper identifies opportunities for development agencies to expand their current focus on the links between climate and development. Most agencies already consider climate change as a real but uncertain threat to future development, but they have given less thought to how different development patterns might affect vulnerability to climate change.

- Klein, R.J.T., et al, 2007, 'Portfolio Screening to Support the Mainstreaming of Adaptation to Climate Change in Development Assistance', Tyndall Centre for Climate Change Research, Working Paper no. 102, February. Available electronically. Please see [http://www.tyndall.ac.uk/publications/working\\_papers/twp102.pdf](http://www.tyndall.ac.uk/publications/working_papers/twp102.pdf)

### **Climate as a development issue**

Until quite recently, there was little connection made between climate change and broader socio-economic development. The following paper documents this disjoint and then describes how the two 'sides' have gradually begun to converge.

- Huq, S., Reid, H. and Murray, L. A., 2006, 'Climate Change and Development Links', Gatekeeper Series 123, IIED. Available electronically. Please see <http://www.iied.org/pubs/pdf/full/14516IIED.pdf>

Adaptation through climate risk management is the message of this IRI report. It is based on case studies of flood management in Mozambique, food security in Ethiopia, malaria control in southern Africa, agriculture in Mali, drought insurance in Malawi. The report's recommendations are directed towards national policy makers responsible for research and development efforts, leaders of national disaster risk reduction efforts, national meteorological services, research institutes and line ministries for climate-sensitive sectors, and relevant international development and research partners, including donor agencies. They are:

- Recast climate as a 'development' issue
- Encourage institutional innovation
- Strengthen research in support of climate risk management
- Orient meteorological services towards achieving development outcomes
- Promote systematic knowledge sharing
  - Hellmuth, M.E., et al (eds), 2007, 'Climate Risk Management in Africa: Learning from Practice', International Research Institute for Climate Prediction (IRI), Columbia University. Available electronically. Please see <http://tinyurl.com/37oxga>

The following focuses on socio-economic constraints to livelihood security in face of climate change in Uganda

- Orindi, V.A. and Eriksen, S., 2005, 'Mainstreaming Adaptation to Climate Change in the Development Process in Uganda', African Centre for Technology Studies (ACTS). Available electronically. Please see <http://www.acts.or.ke/pubs/monographs/pubs/ecopolicy15.pdf>

Section 6.2 of the following is on institutions

- Mitchell, T., Tanner, T. and Wilkinson, E., 2006, 'Overcoming the Barriers: Mainstreaming Climate Change Adaptation in Developing Countries', Tearfund. Available electronically. Please see <http://tinyurl.com/2o5r2w>

### Other Helpdesk Queries

You may also wish to review a recent helpdesk query on a similar topic. I have tried not to replicate the references from this query.

Please provide a short list and brief summary of articles (maximum 4) on the future consequences (social, political and/or economic) of climate change for developing countries and a short list and brief summary of articles (maximum 3) on how developing countries are adapting (or will have to adapt in the future) to climate change. Ideally these papers would include country case studies of developing countries, and if possible, the impacts of climate change on migration. See <http://www.gsdr.org/docs/restricted/HD246.pdf>

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### Websites visited

ACTS; African Environment Programme; AllAfrica.com; Bridge; CBNRM; CBNRM; Centre for Environment and Society Essex; Ceres; CLACC; climate Research Unit/UEA; Climatic Research Unit; CSERGE/UEA; DFID; ELDIS; ID21; IDS; IIED; IPCC; IRI; IRSA; IUCN; Journals (various); LCA/ELDIS; Nature; ODI; OUCE Oxford; Oxfam; Rapid Climate Change Project; Resilience Alliance; RING Alliance; SciDev.Net; Science; Tearfund; Tiempo/UEA; Tyndall Centre for Climate Change Research; UNEP; UNFCCC.

**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.

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