

## Curriculum Vitae

### Nicholas Brooks

#### Position

Independent climate change consultant & researcher; Visiting Research Fellow at Tyndall Centre for Climate Change Research, University of East Anglia, Norwich NR4 7TJ, UK. Specialist in adaptation and climate change and international development.

**Date of Birth:** 16 October 1968  
**Nationality:** British  
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#### ACADEMIC QUALIFICATIONS

- PhD. Climatic Research Unit, University of East Anglia, Norwich, UK. Thesis title: "Dust-climate interactions in the Sahel-Sahara zone of northern Africa, with particular reference to late twentieth century Sahelian drought", awarded July 2000.
- BSc (Hons.) Geophysics, Class 2.1, University of Edinburgh, UK, awarded July 1993.

#### RECENT (POST-DOCTORAL) EMPLOYMENT

- **2005-2009: Independent consultant on climate change, development and adaptation** (see below for details of clients and work undertaken) and independent researcher (various aspects of adaptation including past adaptation to rapid and severe climate change; climate change in northern Africa; implications of climate change and adaptation for international development and sustainability). Director of non-profit Western Sahara Project (human adaptation to climate change in the prehistoric Sahara).
- **2001-2005: Tyndall Centre for Climate Change Research**, working on various projects and consultancies, including development of national-level indicators of vulnerability and capacity to adapt to climate change, and preparation of reports and reviews on various aspects of climate change.
- **1999-2001: University of Reading, Department of Geography**, working on the *Fezzan Project*. Remote sensing and field survey work to identify indicators of past environmental change, assessment of past environmental and climatic change and synthesis of archaeological and environmental data, fieldwork in Fezzan region of southern Libya.

#### CONSULTANCY WORK

- **World Bank / Coyne & Bellier** (2009-2010)
  - Climate change consultant on feasibility study for Red Sea – Dead Sea Water Conveyor project, a study of the feasibility of constructing a water conveyor from the Red Sea to the Dead Sea for environmental rehabilitation of the Dead Sea and environs, and generation of hydropower.
- **UK Department for International Development (DFID)** (2009)
  - Organisation and delivery of 3-day course on climate change at DFID HQ (Palace St., London), including sessions on climate change science, adaptation, mitigation, economics of climate change.
  - Organisation and delivery of 3-day climate change for Environment Advisers' annual retreat, covering similar topics to the general course above, but in greater depth and with a wider range of speakers from within and outside the UK.
  - Organisation and delivery of 1-day course on climate change science, economics & adaptation for Social Development Advisers annual retreat, with input from the Smith School and IDS. Delivery of additional lecture on climate change, migration and conflict.

- **World Bank (2009)**
  - Member of Expert Group on Pilot Programme on Climate Resilience (for Climate Investment Funds), designing methodology for country selection, regional analysis for country identification (including supplementary report on Middle East and North Africa) and reporting to sub-committee. Also general advisory role to World Bank on climate change risks and adaptation, including advice on climate change implications for Bank activities in Kenya under the Kenya Vision 2030 plan. (Dec 2008 – Jul 2009: <http://go.worldbank.org/NES6XX6SF0>.)
- **University of East Anglia (Overseas Development Group, DEV) (2008-2009)**
  - Major role in preparation and delivery of training for “Climate Change and International Development” courses in September 2008 and September 2009, with Roger Few.
  - Provision of training for DFID Climate and Environment Advisers during Adaptation Reading Week held at University of East Anglia and organised by Overseas Development Group (2008).
- **United Nations Development Programme (UNDP) (2002-2009)**
  - Development of methodology and indicators for relative country-level climate change risk assessment for sub-Saharan Africa and Arab States regions (ongoing).
  - Climate change risk screening of UN Country Programme in Cape Verde (2008)
  - Development of UNDP’s *Quality Standards for Adaptation* (2008-2009)
  - Provision of adaptation training for UNDP-GEF staff at Nov. 2006 workshop, Columbia University, and other training for UNDP Senior Managers at regional training workshops in Bangkok, Cairo, Lima, Windhoek, and Bratislava (2007-08).
  - Leading role in development of UNDP’s *Thematic Areas on Adaptation*, including assessments of relevant developmental baseline issues, key climate change risks & vulnerabilities, and potential adaptation needs, strategies and options at regional scales for Agriculture & Food Security, Water Resources, Public Health, Disaster Risk Management, Coastal Development, Natural Resources (2007-08)
  - Leading role in development of UNDP’s Monitoring and Evaluation Framework for Adaptation (2007-08).
  - Development of adaptation initial project proposal (PIF) for the coastal sector in Mauritius (2007).
  - Formulation of adaptation project development guidelines (2005-06).
  - Provision of guidance for *Adaptation to Climate and Coastal Change in West Africa* project, including field visits and facilitation at stakeholder meeting (2005-2006).
  - Lead author of technical paper and member of expert group for development of UNDP-GEF *Adaptation Policy Framework* (APF) (2002-2005).
- **UK Home Office**
  - Short consultancy on climate change and migration with Tyndall Centre (Feb-Apr 2009)
- **German Advisory Council on Global Change (2006)**
  - Preparation of commissioned expert study on “Sea-Level Rise: Coastal Impacts and Responses” for Special Report: *The Future Oceans: Warming Up, Rising High, Turning Sour* (2006).
- **World Initiative on Sustainable Pastoralism / World Conservation Union (IUCN) (2006)**
  - Preparation of discussion paper on *Climate Change, Drought and Pastoralism in the Sahel* for the at the request of UNDP-GEF (2006).
- **Tyndall Centre for Climate Change Research (2005):**
  - Preparation of state-of-the-art review of climate change science for commercial clients on behalf of Professor John Schellnhuber, Research Director of Tyndall Centre (2005).
- **UK Department of Environment, Food and Rural Affairs (2004)**
  - Preparation of briefing paper on stabilisation of atmospheric greenhouse gases and global temperatures with respect to Article 2 of the UN Framework Convention on Climate Change in preparation for “Avoiding Dangerous Climate Change” conference in Exeter, UK, February 2005.
- **UK Economic and Social Research Council (2004)**
  - Commissioned paper on climate change and variability in the Sahel-Saharan region.

## RECENT/ONGOING RESEARCH ACTIVITIES & PROJECTS

- **Implications of Climate Change for Development (2008-2009)**
  - Collaborative work with Professor Kate Brown (UEA/DEV) and Natasha Grist (ODI), using long-term perspectives on climate change and adaptation to draw lessons intended to inform development policy. A key element of this work is a critical examination of existing development models and adaptation

assumptions. The work was published in recent issue of Development Policy Review (Brooks et al., 2009).

- **Cultural Aspects of Climate Change (2007-2009)**
  - Collaborative work with Dr Thomas Heyd of the Department of Philosophy at the University of Victoria, British Columbia, examining how views of the environment and the relationship between “society” and “nature” influence human behaviour in the context of mitigation of and adaptation to climate change, and how these views are shaped by various philosophical, ideological and cultural traditions. This work was presented at the February 2008 Tyndall Centre conference on “Limits to Adaptation”, and published in the subsequent book (Heyd and Brooks, 2009). Further collaboration is planned, including publications and workshops.
- **Climatic & Cultural Change in the Middle Holocene (2005-2009)**
  - Ongoing desk review work aimed at integrating archaeological and palaeoenvironmental information in order to establish possible links between severe & abrupt climate change and changes in human societies in the Middle Holocene, with a focus on the period 6000-5000 years before present (BP). This period represents the last episode of systematic reorganisation of the global climate, and one of the aim of this work is to draw tentative lessons about adaptation to severe and abrupt climate change that can inform current adaptation research and policy. This work resulted in a widely cited paper (Brooks, 2006), a public lecture at the 2006 British Association Festival of Science which received wide media coverage. Current activities include the establishment of a research network to examine climatic and cultural change in the 6<sup>th</sup> millennium BP (with Dr Joanne Clarke of WAM, UEA). A book chapter related to this work is currently in press.
- **Western Sahara Project (2002-2009)**
  - Director of Project since its inception in 2002. Since 2006 Co-Director with Dr Joanne Clarke of UEA School of World Art Studies & Museology. Aim of Project is to develop linked chronologies of climatic/environmental and cultural change for Western Sahara, focusing on the Middle Holocene, in order to infer how prehistoric societies adapted to severe and rapid climate change during the transition from humid arid conditions in the Sahara. Responsibilities include organisation and leadership of field seasons, reporting & publication, liaison with local authorities, fundraising (personally raising ~£85,000 between 2002 & 2009) and outreach/publicity.
- **Assessment of Climate Change Risks at the National Level (2009)**
  - This research draws on earlier work on national-level indicators of vulnerability and capacity to adapt to climate variability and change (Brooks, 2003; Brooks et al., 2005), and on recent work for the World bank and UNDP on the development of indicators for assessing climate change risks and targeting adaptation assistance. The aim is to develop a robust methodology for assessing different types of climate change risk at the national level, based on a number of key indicators of exposure to climate change hazards and of underlying societal vulnerability. Intended applications are the identification of countries in particularly urgent need of adaptation assistance, and a broad characterisation of the risks facing these countries.

## OTHER INFORMATION

- **Contributing author to IPCC** Fourth Assessment Report, Working Group II, Chapter 9 (Africa).
- Occasional advisor to organisations such as **SOS Sahel** and **Sudan Studies Society of the UK** on climate change, pastoralism and conflict; invited speaker at AGMs of both organisations (climate change and the Darfur conflict).
- **Invited/keynote speaker** at a number of conferences and meetings on human-environment interaction and adaptation to climate change, regularly invited to present seminars at academic institutions (including **Universities of Oxford and Cambridge, London School of Economics, Tokyo & Ibaraki Universities in Japan, Postdam Institute for Climate Research in Germany, Cambridge Humanitarian Centre**).
- Widespread work-related travel for fieldwork, project preparation, workshops and delivery of training on climate change science, impacts and adaptation. Fieldwork in Western Sahara, Libya, Ethiopia, Tunisia, Mauritania. In-country work on climate change adaptation in Cape Verde, Gambia and Mauritius. Work-related travel (meetings, research, conferences, delivery of training courses) to Algeria, Canada, Cuba, France, Germany, Ghana, India, Namibia, Peru, Senegal, Slovakia, Thailand, United States.
- Regular contributor to broadcast and print media on issues relating to climate change, including participation in three television documentaries on past climate change and impacts on human societies in the Sahara.
- Moderate spoken French; basic written and spoken Arabic.

**PUBLICATIONS**

- Brooks, N. 2010. Human responses to climatically-driven landscape change and resource scarcity: Learning from the past and planning for the future. In I. P. Martini and W. Chesworth (eds.) *Landscapes and Societies*, in press.
- Brooks, N., Brown, K. and Grist, N. 2009. Development Futures in the Context of Climate Change: challenging the present and learning from the past. *Development Policy Review* 27, 741-765.
- Brooks, N., Clarke, J., Garfi, S. and Pirie, A. 2009. The archaeology of Western Sahara: results of environmental and archaeological reconnaissance. *Antiquity* 83, 1-17.
- Frankel-Reed, J. Brooks, N., Kurukulasuriya, P. and Lim, B. 2009. A Framework for Evaluating Adaptation to Climate Change. In R. Van Den Berg and O N. Feinstein (eds.) *Evaluating Climate Change and Development*. Transaction Publishers, New Brunswick, New Jersey.
- Heyd, T. and Brooks, N. 2009. Exploring cultural dimensions to climate change. In W.N. Adger, I. Lorenzoni and K. O'Brien (eds.) *Adapting to Climate Change: Thresholds, Values and Governance*, pp. 269-282. Cambridge University Press.
- Brooks, N. and Grist, N. 2008. Development Futures in the light of climate change: creating new insights into past, present and global futures. Background/discussion paper for DFID/DSA Policy Forum 'Development in the face of Climate Change: Beyond Mainstreaming?', 2nd June 2008, Univ. of Greenwich. Available at: <http://climateanddevelopment.nri.org/papers.htm>
- Risse, N. and Brooks, N. 2008. Strategic Environmental Assessment and Adaptation to Climate Change. DAC Network on Environment and Development Cooperation. OECD.
- Contributing author to: Boko, M., I. Niang, A. Nyong, C. Vogel, A. Githeko, M. Medany, B. Osman-Elasha, R. Tabo and P. Yanda, 2007: Africa. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge UK, 433-467.
- Brooks, N., Nicholls R. and Hall, J. 2006. Sea Level Rise: Coastal Impacts and Responses. Commissioned Expert's Study for German Advisory Council on Global Change (WBGU): Schubert, R., Schellnhuber, H-J., Buchmann, N., Epiney, A., Griebhammer, R., Kulesa, M., Messner, D., Rahmstorf, S. and Schmid, J. The Future Oceans - Warming Up, Rising High, Turning Sour. WBGU, Berlin, 2006, 110 pages.
- Brooks, N. 2006. *Climate change, drought and pastoralism in the Sahel*. Discussion note for the World Initiative on Sustainable Pastoralism, IUCN.
- Brooks, N. 2006. Cultural responses to aridity and increased social complexity in the Middle Holocene. *Quaternary International* 151, 29-49.
- Brooks, N., Adger, W. N. and Kelly, M. 2005. The determinants of vulnerability and adaptive capacity at the national level and the implications for adaptation. In Adger, W. N., Arnell, N. and Tompkins, E. L. (Eds.) *Global Environmental Change Part A* 15, 151-162.
- Brooks, N. and Adger, W. N. 2005. Assessing and enhancing adaptive capacity. In B. Lim and E. Spanger-Siegfried (Eds.) *Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures*, pp 165-181. UNDP-GEF. Cambridge University Press.
- Brooks, N., Di Lernia, S., Drake, N. Chiapello, I., Legrand, M., Moulin, C. and Prospero, J. 2005. The environment-society nexus in the Sahara from prehistoric times to the present day. *The Journal of North African Studies* 304, 253-292.
- Jickells, T. D., An Z. S., Andersen, K. K., Baker, A. R., Bergametti, G., Brooks, N., Cao J.J., Boyd, P. W., Duce, R. A., Hunter, K. A., Kawahata, H., Kubilay, N., La Roche, J., Liss, P. S., Mahowald, N., Prospero, J. M., Ridgwell, A. J., Tegen, I. Torres, R. 2005. Global Iron Connections: Desert Dust, Ocean Biogeochemistry and Climate. *Science* 307, 67-71.
- Brooks, N. 2004. Drought in the African Sahel: long-term perspectives and future prospects. Tyndall Centre Working Paper No. 61.
- Adger W. N., Brooks, N., Kelly, M., Bentham, S. and Eriksen, S. 2004. *New indicators of vulnerability and adaptive capacity*, Tyndall Centre Technical Report 7.
- Brooks, N. 2003. *Vulnerability, risk and adaptation: A conceptual framework*. Tyndall Centre Working Paper No.

38. Available at: [www.tyndall.ac.uk](http://www.tyndall.ac.uk)

- Brooks, N. and Adger, W. N. 2003. *Country level risk measures of climate-related natural disasters and implications for adaptation to climate change*. Tyndall Centre Working Paper No. 26.
- White, K., Brooks, N., Drake, N., Charlton, M. and MacLaren, S. 2003. Monitoring vegetation change in desert oases by remote sensing; a case study in the Libyan Fazzan, *Libyan Studies* 34, 153-166.
- Adger, N. and Brooks, N. 2002. Does global environmental change cause vulnerability to natural disaster? In M. Pelling (Ed.) *Natural Disasters and Development in a Globalizing World*, pp 19-42. Routledge, London.
- Adger, N., Brooks, N., Brown, K., Conway, D., Haxeltine, A. and Hulme, M. 2002. Global Climate Change and Sustainable Development: Vulnerability and Adaptation: Memorandum submitted by the Tyndall Centre for Climate Change Research. In *Global Climate Change and Sustainable Development: Third Report of Session 2001-02*, pp Ev 59-62 and pp Ev 67-68. The Stationary Office, London (Ref: HC 519-II).
- Hulme, M., Jenkins, G., Brooks, N., Cresswell, D., Doherty, R., Durman, C., Gregory, J., Lowe, J. and Osborn, T. 2002. What is happening to global climate and why? In P. Baxter, A. Haines, M. Hulme, R. S. Kovats, R. Maynard, D. J. Rogers, P. (Eds.) *Wilkinson Health Effects of Climate Change in the UK*. Dept. of Health, London.
- Brooks, N. and Legrand, M. 2000. Dust variability over northern Africa and rainfall in the Sahel. In S. McLaren and D. Kniveton (Eds.) *Linking Climate Change to Land Surface Change*, pp 1-25, Dordrecht, Kluwer.