CLIMATE CHANGE AND VIOLENCE:
A Multidisciplinary and Interdisciplinary Initiative

Introduction

At the end of 2002 the US National Academy of Sciences warned of a very sudden global climate disaster, perhaps within the next ten years. Reviewing the academy's report, the then UK environment minister, Michael Meacher, warned:

"We do not have much time and we do not have any serious option. If we do not act quickly to minimise runaway feedback effects we run the risk of making this planet, our home, uninhabitable." (Watt, 'US rejection of Kyoto climate plan "risks uninhabitable Earth"', *The Guardian,* May 16, 2002)]

Dire workings like this are becoming very much part of the accompanying message to the now considerable scientific research being undertaken on anthropogenic climate. Yet, paradoxically, very little is known in practice on the relationships between rapidly changing weather patterns and their possible impact on complex societies. Or indeed what outcomes may emanate from this.

The Forum for the Study of Crisis in the 21st Century - 'The Crisis Forum' an independent group of academics — has set itself the task of examining this potentially critical subject area and is seeking:

- academic and independent scholarly contributors both in the UK and abroad to help develop the initiative;

- public and - where possible - private awards and grants for this purpose.

Research theme strands

Early on in our own discussions, we identified anthropogenic climate change as the most serious *accelerator* to the overall crisis of mankind in the twenty-first century. Though understated, it is significant that even the US administration's most senior climate advisers have recently acknowledged the challenge which global warming may pose in the form of 'more frequent heat waves, droughts, extreme precipitation events, and related impacts e.g. wildfires, heat stress, vegetation changes, and sea level rise.' (*Guardian*, 5 December 2003).

With this challenge in view, we are now proposing to develop major programmes of research; 'Climate Change and Violence' - under the direction of Dr Mark Levene - which will run in tandem with another programme 'Climate Change and Public Opinion' to be developed under the direction of Dr David Cromwell.

We offer a rationale for 'Climate Change and Violence' as an appendix to this document. What we are seeking, in the first instance, however, is the involvement of like-minded researchers, the aim to being to make a collective bid for significant funding. Researchers may be university-based or independent. Moreover, because this is intended as a collaborative programme how researchers might wish to develop their specific input is open to extensive and wide discussion.

What is thus offered here is primarily an indication of some of the specific projects which would seem most pertinent to the overall aims of this programme. The list is by no means

intended as exhaustive. The specifics too are open to clarification, improvement and enhancement by disciplinary experts.

- Analysis of specific geographical regions where climate change interact most closely with other already existing stress factors including demographic pressures, land pressures, pre-existing climatic rigour, including proclivities to crop failure (e.g. Horn of Africa).

- The impact of rising sea levels with consequent inundation and flooding on different political and social formations (e.g. UK/Netherlands/Bangladesh/Maldives).

- The impact of accelerating desertification and water shortage – or alternatively glaciation - on patterns of human settlement, migration and inter-group relationships.

- Analysis of the impact of climate change on specific regions or countries where violence including both ongoing low-intensity and high intensity conflict is already chronic or endemic (e.g. Israel-Palestine; East African Great Lakes Region; sub-Saharan West Africa; Indonesian archipelago; Transcaucasia).

- Analysis of the historical and archaeological record where climate change has been discernible as a stress factor undermining or destroying a society/culture and/or comparison with cases where societies either did not suffer such change or alternatively found ways of overcoming or circumventing it.

- Potential scenarios including mathematical models of the relationship between climate change and state/societal stress, using 'chaos' and or other relevant theories.

- Analysis of the psychological burdens of climate change, charting the impact of severe events, including natural catastrophe, rapidly changing landscape and weather on the human psyche in individual and collective terms.

- Analysis of human responses to such extreme challenges, in literature and the arts.

- Localised and comparative analysis of the epidemiological relationship between changed climate conditions (through, for instance, increased air and water pollution, the spread and intensification of disease carrying fauna on mortality, health, anatomy, human resistance to illness, disease patterns etc.) and broader societal stress and breakdown.

- Comparative analysis of state and local emergency planning with reference to human or natural disaster.

- Comparative analysis of the historic and contemporary behaviour of elite actors including state leaders, local government, corporate business, the UN administration, non-governmental organisations (NGOs) and the media, in response to human or natural disaster both in the short, medium and longer term.

- Comparative analysis of institutional and jurisprudence changes at international, regional and local levels including security assessments in response to impending climate change and their likely impact on democratic (or other political) structures and grassroots reaction.

- Comparative analysis of the impact of climate change on food and other primary resource security/energy supply and its potential relationship to societal and inter-state conflict.

- Analysis of changing global humanitarian relief needs in response to intensified climate change/human conflict synergies.

- Localised and comparative analysis of the effect of the impact on bio-diversity of extreme climate change and its relationship to human conflict.

- A feasibility study of appropriate technologies for lessening the social and economic impact of extreme climate change.

- A feasibility study of land, water, air and town management design for lessening the social and economic impact of extreme climate change.

- A feasibility study of localised farming practice, transport and energy supply for lessening dependency in the event of broader, global infrastructural and communications breakdown.

- A feasibility study of economic, social and cultural models most appropriate to lessening the potentiality for conflict as a result of extreme climate change.

- A feasibility study of the most appropriate ways of enabling local and regional communities to combat and lessen the potentiality for conflict as a result of extreme climate change including co-operation across cultural and ethnic boundaries and the relevant resource appropriations required.

Cross-referencing this list to disciplines and one might aspire to the involvement of scholars from among the following areas of expertise:

Oceanography
High Energy Physics
Geography
Environmental Sciences
Population Science
International Relations
Defence Studies, Peace Studies, Genocide Studies
Economics, Politics, Law, Sociology
History, Archaeology, Anthropology
Medical Sciences
Biology
Biochemical and Physiological Sciences
Psychology
Mathematics, Risk Analysis, Statistics, Information Science
Engineering
Town and Countryside Planning
English, Modern Languages
Philosophy
Music, Art, Media Studies, Film Studies

Developing the Initiative

As initiators of this project we recognise both its enormous potential and the problem of cohering it in such a way that it offers itself as a serious proposition to potential grant-making bodies.

Our first aim therefore is seek collaborators and advisors from within academic institutions and independent research groups or individuals in the UK and abroad to develop and cohere the proposition in order to assist in taking it as a proposal to potential grant-making bodies. This ideally would involve the creation of a small project team to tighten up objectives and

more closely align it the proposal to specific individual or group research programmes and interests.

We would specifically hope that there will be PhD students and immediate post-doctoral scholars who might have projects which could be incorporated within this overall plan of work. However, in addition to specific monographs, PhD theses and specialist papers in the peer-reviewed literature, the programme would ideally develop as a series of reports and edited volumes with a strong emphasis throughout on a multidisciplinary approach and with a clear remit to make these findings broadly accessible not only to 'policymakers' in governments, business, media, research communities and funding bodies but to a much broader public.

Thus, we would aspire to wide dissemination of the project's progress and findings via outreach articles in the media and via the web and CD-ROM, funding permitting with, for instance, visualisation of potential scenarios, made available the latter interactive medium.

Similarly, we would hope that there would be one culminating volume summarising the main findings of the entire project-cum-programme.

Summary

This initiative at this stage remains essentially a proposition. Nevertheless, it is founded in great part on a sense of urgency. While the causes of climate change are now an area of intense and detailed scientific investigation the actual effects of such change on mankind and hence the planet remain almost entirely in the realm of speculation. This Crisis Forum proposal thus is intended to develop a wide multidisciplinary as well as interdisciplinary response to this challenge. Equally the overall aim of the programme is to not simply to chart or predict a potential time bomb of a problem but seek lateral answers and amelioration at source; this on the premise that prevention is much sounder, not to say more cost-effective than any post-disaster response.

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Appendix 1: Why Climate Change and Violence?

Both structural and more overt physical violence are hardly new phenomena. On the contrary, they could be argued to be fundamental ingredients to both the historical and prehistoric record. (See for instance, T.M. Wigley, M.J. Ingram and G. Farmer, *Climate and History: Studies on Past Climates and their Impact on Man* , Cambridge: Cambridge University Press, 1981; Hubert Lamb, *Weather, Climate and Human Affairs*, London: Routledge, 1988). To consider any current radicalisation as a result of current climate factors would thus seem to require an ability to assess interrelationships between climate change and violence in the pre-historical and historical human experience as well as with reference to contemporary political, sociological, anthropological geographical, epidemiological and other factors.

However, what is arguably significant and new about the present situation is:

- the complexity of an economically 'advanced,' globally interconnected society (for which we sometimes read 'the West' or 'the First World') in which the breakdown of relatively small elements of the basic infrastructure repeatedly emphasise its vulnerability;

- the dependency of much poorer Second and Third World countries on terms of trade and food security on the First World itself;

- acute environmental, demographic and other stress factors which have the potentiality to create a *globally systemic crisis* under particular conditions.

Certainly, all of the serious stress factors in today's world on one level exist and are likely to proliferate or deepen with or without climate change. The planet's human population now exceeds the 6 billion mark and, according to UN figures, is scheduled to reach somewhere between 7.2 and 8.5 billion in 2020. Certainly, the predicted population expansion will almost be entirely in the Third World thus closely intermeshing with issues of public health, competition for land, rural debt and a general breakdown in the ability to sustain livelihoods by traditional farming methods. However, recurring historic climate oscillations, such as for instance El Nino, may give some indication of possible societal outcomes if the climate variable is factored in. More acute commentary such as that of Mike Davis, *Late Victorian Holocausts, El Nino famines and the Making of the Third World* (London and New York: Verso, 2001), go further, by, closely linking Western-imposed but doctrinaire market-orientated ideology with the most severe climate-induced mass death in an emerging Third World.

The evidence for accelerating anthropogenic climate change as charted in the ongoing IPCC data thus adds a disturbing dimension to a world already in serious crisis. Their most recent evidence, for instance, predicts that the atmosphere could warm at twice the rate anticipated in 1996, leading to global temperature rises by 2100 - in the worst-case scenario - of almost 6ºC (IPCC, *Third Assessment Report - Climate Change 2001*, Cambridge University Press, 2001). Indeed, the predicted range of temperature rise of 1.4º to 5.8ºC has been described by them as 'potentially devastating.' Equally projections on sea level rise by between 9 and 88 cm from 1990 to 2100 have led Michael McCarthy, *The Independent's* environment correspondent to conclude that 'this implies absolute disaster for billions of people.' Linked to overwhelming pressures on natural resources, particularly water resources in much of the Third World, the potential for quite *unprecedented* political and social upheaval including, notes Pulitzer prize-wining journalist Ross Gelbspan, a lethal effect on 'democratic political processes and individual freedoms,' can neither be circumvented nor ignored.

All this, at one level, is to simply emphasise that the effects of accelerated climate change present an unpredictable additional variable to the potential for massive violence already

inherent in today's world. Intensified inter-state and intra-state conflict in already markedly stressed Third World regions is certainly one most likely result. But then, even relatively moderate climate change, particularly if cumulative and sustained over a considerable period, could be sufficiently disruptive in more Western, urbanised societies to provide a dubious legitimisation for an extension of the state's 'war on terrorism,' draconian emergency legislation included.

It does not therefore follow that global economic and political meltdown is the *inevitable* consequence of climate change. Our programme of study, indeed, is premised on the likelihood that sustained climate change will in the first instance exacerbate forms of structural violence already particularly evident in the Third World: the flight from villages to the cities; exacerbation both at a local, regional and state level of conflicts over scarce but essential resources; the politicisation and mobilisation of these conflicts in terms of 'insider' and 'outsider' ethnic or cultural groups. That said, a climatically-induced *acceleration* of these tendencies and hence the enlarging of the number of what are already being dubbed 'failed' states may initiate a snowballing effect evident in terms of the spread of conflict across borders, mass refugee flows, in turn inducing further severe environmental and public health degradation. Even the most privileged parts of the first world, however, may ultimately not be able to contain this potential. In such circumstances, First World near-monopolies of the means of violence, including Weapons of Mass Destruction, may themselves become critical factors in determining likely scenarios and outcomes.

For these reasons, amongst others, the Crisis Forum considers it imperative both to empirically investigate and interrogate the interrelationships between climatic change and the potentiality for violence in the contemporary world in order to be able to see the wood for the trees. However, if this might be a narrow and reductive aspect of our agenda, it is very far from its overall aim. Indeed, the assumption itself might be a potential subject for analysis given that our ultimate imperative is *not* to provide discrete information for governments in order to manage and control crisis conditions but rather to offer pointers for the holistic *avoidance* of inter-group and inter-state conflict, worsening structural violence and state or group coercion, not least under the pretext of emergency diktat.

Appendix II: The Crisis Forum

The Crisis Forum was begun in 2002 by two independent-minded scholars, one a historian, the other an oceanographer, both based at the University of Southampton. Its primary premise is that mankind is facing an interlocking series of political, economic, environmental, social and epidemiological dangers which are unprecedented in our existence. Indeed the Crisis Forum argues that unless we drastically change our global political and economic practice there is a high probability that the human species may not survive into the foreseeable future. The critical period is certainly imminent. Yet at the same time, and however paradoxical this may be, there is also opportunity in this situation. It may still not be too late to create an economically and environmentally sustainable, socially just, ethically and spiritually grounded, even resource-rich basis for our existence on this planet. The key, we propose, lies in rethinking our social and political relationships so that the ameliorative actions we do take enable us to live with the planet rather than against it.

With this in view, the Crisis Forum also argues that the Academy has a particularly important role in confronting this challenge. In modern times, when political leaders encounter complex problems they often turn to 'experts' for assistance. Very often the assumption is that the boffins can find some technical or managerial fix enabling the 'system' to run a little more 'efficiently', 'profitably' or 'cleanly.' Our starting point is diametrically opposed to such mantras. We propose that what is needed is some alternative method by which committed academics can assist in enabling and empowering *all* mankind in its quest for a sustainable future.

The Forum thus envisages itself (amongst other like-minded bodies):

- acting as a magnet for academics or independent researchers from *any* discipline who want to analyse the nature of Crisis (from whatever perspective) with a view to seeking lateral but holistic remedies for it;

- breaking down the barriers between academic disciplines through the development of wide-ranging but nevertheless specific research projects which address the 'big' issues;

- offering courses which promote and disseminate our analysis and vision to a wider student body, including potential decision makers, policy makers and campaigners;

- providing in-depth analysis and, or consultancy through Forum publications and, or on behalf of other organisations, media etc. but always with a view to wide and inclusive dissemination.

ML January 2004