The Impact of Climate Change on Global Security and World Affairs

Transcript of a lecture given by Sir Crispin Tickell GCMG, KCVO to Global Security Forum

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The title of the talk that we agreed upon was the impact of climate change on global security and world affairs. It is a very big subject and many of you could contribute as well as I could on this subject, but I am now going to take you on a kind of rapid run through the thing in the hope that you will indeed ask some difficult questions, because the more difficult the question, the more interesting it is to try and answer it.

First, security is, of course, an overworked word. It can be global security, it can be national security, it can be individual security. One definition that is quite useful is the assurance that people have that they will continue to enjoy those things that are most important to their survival and well-being - this at least underlies the somewhat subjective character of security and the way it differs according to different circumstances. Fears about environmental catastrophe have in some respects replaced fears that people used to have about the dangers of nuclear war and an east-west conflict which would destroy everything. I think the trouble is that, in both cases, it induces a feeling of helplessness, both on the part of individuals and on the part of institutions. Now by contrast, military authorities of any kind cannot afford to be too romantic about it or indeed, too intimidated. They have got to work out what to do and it is quite interesting how much military authorities from different countries have already focused on the implications of climate change. There have been papers that I have seen recently written by the Pentagon and by the Ministry of Defence and incorporated to some degree into their strategic planning. I won't say that those august bodies actually gave me copies of their papers but in this age of leaks, one can learn a lot. I do not want to go into this too much, because you must be exhausted by hearing about climate change, but let me just quickly run through the main aspects of climate change, which is a word that I prefer to avoid using if I can – I prefer to use the term 'climate destabilisation'.

Last year, the Government's Chief Scientific Advisor, Sir David King, said that climate change was a bigger threat to society than terrorism. In a few words, the problem relates primarily, but not exclusively, to the build-up of greenhouse gases in the atmosphere which are now at their

highest level for 650,000 years and if things continue as they are, we will be back in conditions not dissimilar from those 125,000 years ago, when conditions in the earth were very different from those today.

In such an event, you would have to re-do all the geography books, re-draw the sea levels, re-draw the cities and so on and so forth. So we are now set on a path which is not unalike what happened 125,000 years ago.

All this of course, has been well brought out in the successive reports of the three working groups of the Intergovernmental Panel on Climate Change, which with Al Gore, as you have just been reminded, won the Nobel Peace Prize last week. The implications for security were thereby very well brought out. We do not have to agree with every word that was in the Intergovernmental Panel reports, nor do we have to agree with everything that Al Gore said, but I do not think that anyone has challenged the broad conclusions of either. Of course, there is a serious dispute and every now and then you find it comes out in the newspapers or elsewhere, but it relates primarily to the distinction between natural change and human-driven change. Natural change is happening all the time and we are now much better aware of the fluctuations of the past than we used to be. We all live in that little patch of time, which is just about 12,000 years long – nothing in geological terms – and which has been warm since the last recession of the glaciers. If you look back, you can see that there have been periods when it has been much warmer than this and also periods when it has been much colder than this.

But you have these little fluctuations that are happening all the time and there are certain points to watch, little 'indication points' of where things are going and what is going on. One is the state of the Amazonian rain forest, which I should say had terrible droughts in the last couple of years; one would be the direction of the ocean current, particularly in the North Atlantic; another would be the release of methane from beneath the tundra and the ocean bed; and the pattern of the Indian monsoon, a very critical factor; and the state of the Arctic and Antarctic ice sheets and sea ice.

Now when you look at those things, you cannot avoid the conclusion that change is taking place at an accelerated rate and this is human-driven and that is perhaps the central and most important message of these scientific reports to which I referred. The results for society are becoming clearer every day and could become more so with a rich variety of positive feedbacks. In a few words, these results include changes in weather everywhere, with a different distribution of rainfall and drought and more extreme events like storms and floods; more melting of the Arctic and Antarctic ice sheets (I went up to have a look myself last year at what was happening in the Arctic and a couple of years before that, I went down to Antarctica to see that too); increasing sea level rise – at the moment it is going up about 2mm a year and accelerating; acidification of some upper layers of the ocean with changes to biological content of the upper layers of the oceans worldwide; and changes in eco-systems generally, including insects and micro-organisms. In other words, there is a huge pattern of change taking place, but in recording these main events, I should mention that there are of course, many uncertainties.

While those uncertainties may be becoming less important and people are trying to narrow them, nonetheless there are many uncertainties. You have what are called tipping points

between one climate regime and another: it is a very important concept, because in the past, the change is not gradual like a line on a graph, it goes in little stabs and movements up and down and changes quite quickly and you do not quite know what is going to happen. A major eco-system change will completely change the character of the other living organisms around it and likewise, the storms and the hurricanes and the rest with it. And then as I say, the other big uncertainty is the possible range of dislocations on weather patterns worldwide. There is the recent paper written by the European Commission which brought together these points very well and increasingly its predictions for some of the effects in Europe are exactly opposite to those made by the Pentagon, so you pays your money and you takes your choice! In any case, climate change has to be linked, directly or indirectly, to the other great issues of our time. Climate change is not a big problem by itself, it is linked to all these other points, above all, human population growth and the resulting patterns of migration, whether for environmental or political reasons; land degradation; resource depletion; waste accumulation and deforestation with manifest effects on agriculture and the supply of food; pollution and the supply of water, both fresh and salt; the prospects of sea level rise affecting many of the world's major cities; destruction of biodiversity - that is the code word for the other living organisms large and small, on which humans wholly depend. I think sometimes people forget the degree to which we do depend on them – we could not digest, we could not breathe, without the help of the bacteria inside us; and their good health is our good health. Then you have got, of course, human health in all its aspects and control of possible pandemics; the effects of the switch to non-fossil fuel sources of energy, in particular biofuels and feedstocks - a very big subject and again, much in controversy at the moment; and the human propensity to use violence, big or small, to settle disputes - a very important and disagreeable reminder of what we are like.

We also to have to reckon with the consequences of possible mistakes in technology. There was a near miss in the 1960s, which I think that most people have now forgotten, over the development of technologies which would have done still more damage than chlorofluorocarbons to the ozone layer, which of course reduces the impact of certain wavelengths of ultraviolet light on humans and other forms of life. Innovation of technology is very important, but please do not think that technology is ever going to produce the answers. Some in the United States have a habit of thinking so, not least the President, but in my view, it is simply wishful thinking. Work on the impact of climate change inevitably needs to take account of these other issues in which climate is intertwined.

First some history – it is always useful to look back and see what has happened in the past. I do not know whether you have seen, any of you, Jared Diamond's book, called 'Collapse: How Societies Choose to Fail or Succeed' in which he examines why societies as he calls it, choose to survive or fail, but he makes the point in the book that, for example, the degradation of Rwanda and the genocide of much of its population was due to a lethal mix of over-population, deterioration of soils and recurrent droughts. And the same can also be said of current events in Darfur, themselves precipitated in part by drought, in turn precipitated by changes in the Indian monsoon, in turn precipitated by ocean warming. In the long past, the collapse of the civilisations of the Indus valley and of the cultures in pre-Colombia and Mexico were all caused by a comparable mix of circumstances.

Now all complicated societies like ours are vulnerable, especially those led by cities where

about half the human species now live. They can be likened to organisms drawing in food, material and energy and water, and emitting waste. Once supplies are cut off, they and their apparatus of institutions can easily become destabilised. In this regard, the supply of energy from whatever source is crucial: Europe and the United States are both very vulnerable in that respect. For more rural societies dependent on one or two crops, there are even more direct threats to health and well-being. Then, as I have said before, there is depletion of resources, including the consumption of fossil water from aquifers, something that is very marked at the moment in China. Over-cultivation and deforestation again can be linked to changes in rainfall and are a lively source of conflict. Even opening up new resources is not always benign: there are already burgeoning disputes between Russia, the United States, Canada and possibly other countries, over ownership of the land underlying the North Pole and navigation rights over the North West Passage. Reactions to change, of course, are varied. There can be the famous defensive reactions which can lead to the building of virtual fortresses round relatively rich countries to keep out intruders and protect resources.

The same goes for relatively rich communities within generally poor countries and I expect that most of you have seen examples of that, whether in California or indeed in Bangladesh. But walls of this kind are never effective for long. The Israelis will be no more capable of keeping out the Palestinians than the Americans are at keeping out Mexicans and others from Central America. So those are the kinds of defensive reactions. Then you come to the offensive reactions, particularly if a country is worse hit by change, including invasion by others, movement of refugees, ethnic rivalries and terrorist or guerrilla actions against rich countries.

We forget that globalisation cuts both ways. In the recent Pentagon paper, some possible scenarios were explored for the years 2010-2020 and 2020-2030. They included large movements of population driven north or south by changes in climate; conflict over water and other essential resources; and competition for fuel resources, whether in Europe, Asia or the Americas. Of course, in the past when human numbers were small, people could and did move as circumstances changed. But we are no longer hunter gatherers and a chilling conclusion of the Pentagon paper was that the results of climate change could be – and I quote – 'a significant drop in the carrying capacity of the earth's environment'. And then inequities between countries, as between communities, become even less tolerable than today and a potent source of conflict. In well-favoured countries, climate change may largely be a problem of adaptation, but for poor ones it is a matter of survival. For example, millions of people could be uprooted in Bangladesh, the Sahel, and parts of India and China.

Half the world's population rely directly on local renewable resources for day to day well-being. It is a problem which people tend to minimize, but I have seen for myself occasions when globalisation means that, for the first time ever, people actually understand what is happening in poor countries and they can witness for themselves how rich countries live. I remember once being in Amazonia and the boat was going downstream – a rather luxurious boat – and up the other way came some local people paddling their canoes and one could not help thinking, 'well, that's them and this is us' and then from the canoe, I heard a transistor radio broadcasting the latest information, so we no longer live in a world in which there are compartments: this is globalisation in one of its aspects.And then, of course, the current redistribution of power and wealth means a redistribution of soft as well as hard power, hard power being military power,

soft power being the force of moral influence. The primacy enjoyed by the early industrial countries and now the United States and Europe is unlikely to last much longer. I go to China every year and I have been for the last 15 years and I do assure you that things are changing very fast. The implications for defence policy from all these factors go far and wide, from protection of key facilities to global humanitarian actions. The taking of effective action to cope with this disparate collection of problems, some global, some national and some individual, will require, whether we like it or not, a new international framework or at least a substantial adaptation of the existing framework. I think we all have to recognise the porous character of sovereignty, seen in the declining power of nation states and to learn to think more globally.

First is the UN Security Council whose fundamental task is the preservation of peace and security and it could be called upon to cope with new and unfamiliar threats to security. As you probably know, Margaret Beckett, then Foreign Secretary, raised the security implications of climate change in the Security Council in April, and some other members welcomed the ensuing debate on the subject, while others felt extremely uncomfortable. Many years ago, I also raised the issue in the Security Council with a conspicuous lack of success. The implications go far and wide and could involve a substantial increase in the responsibilities of the Council.

But obviously some sort of international organisation, whether the Security Council or something else, will be required to establish, to regulate, to monitor and dare I say it, to enforce any global treaty to reduce carbon emissions. The security implications are obvious and here are some questions which we have to ask: should there be a permanent inspectorate and/or a permanent peacekeeping force with powers of intervention across frontiers? Should there be some connection with a central criminal court, itself the subject of considerable controversy? Should there be measures to cope with free riders and other offenders, possibly through sanctions, although we all know sanctions are less than perfect as a means of coercion?

We could certainly try and build on the United Nations Framework Convention on Climate Change in 1992 and whatever may be agreed at Bali in December in the forthcoming meetings. A more ambitious idea would be something which I have long favoured, which is the creation of a World Environmental Organisation, to be the partner of the World Trade Organisation and which would bring together, under its umbrella, all the existing environmental bodies and agreements and thereby cut out a lot of waste and duplication and lack of proper direction. And I may add that it would be no enemy to the World Trade Organisation, indeed one of the recent Directors of the World Trade Organisation strongly favoured this idea himself. Now none of this will be easy. Looking ahead at the prospects for security, we seem to be in for a bumpy ride.

Violence within and between communities and between nation states could well increase. Global arrangements are always fraught with difficulties – there have already been disheartening experiences, for example over implementation of the Law of the Sea. Attitudes towards climate change are changing, even in the United States, but few could confidently predict progress in the near future.

Another little problem has to be remembered. We will certainly need better understanding of the environmental consequences of military action on a national as well as a global scale. Should military authorities be subject to scrutiny for what they now do, usually with scant regard for the

environment, allegedly in each country's national interests? Wars and conflicts have enormous implications for the environment as recent history of the world demonstrates. As was said in the classical language, 'quis custodiet ipsos custodes?' – who looks after those who are doing the looking after?

Major change usually requires three factors: one factor is leadership from above, in which one political leader or someone else takes the initiative and is able to persuade others of the need for action and here I do recall Margaret Thatcher with her speeches on climate change in the 1980s.

The second factor is pressure from below in the form of non-governmental and community organisations of all kinds. It is quite interesting to see that happening to some degree at the moment and with the non-governmental organisations and with Members of Parliament who are currently examining a Climate Change Bill and so on.

And the third factor is what I call benign catastrophe where cause and effect can be clearly identified and the appropriate lessons learned. There was an occasion when I was in China in 1998 when on behalf of the foreigners in the body I belonged to, I expressed condolences to the Chinese Government on the loss of life in the Yangtze floods of that year and I was interrupted by the Prime Minister of China, Zhu Rongji at the time, and he said more or less: 'Look, thanks for your condolences, but we Chinese were substantially to blame for what happened – we had cut down the trees, we had diverted the rivers, we had filled in the lakes and we had destroyed the top soils, so when the floods came as they always come, then there was a disaster.' It was quite interesting incidentally in that regard to note that there was always scepticism in China about the Three Gorges Project and the Three Gorges Dam, but that is now coming out into the open for the first time. Most important, of course, is to go for the true and underlying causes of conflict, understand what is at stake for all concerned and try to diminish and adapt to the consequences, but I do not have to remind you that old Adam and old Eve are still with us: competitive, docile, peaceful, violent, creative, wasteful, various and restless, now as in the future.