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**CLIMATE CHANGE AND SECURITY**

Paul Rogers

The consequences of climate change for human security are profound, but much of the last decade has been lost in avoiding those consequences. The implications for human security are serious. Today, with the consequences of climate change being increasingly recognised by military analysts, there is a risk of the “securitising” of the climate change agenda leading simply to military responses rather than a more preventative course of a rapid shift to a low-carbon society.

**A World Blowing Cold and Hot**

In 2009-10, the United Kingdom and much of the rest of north-west Europe experienced one of the coldest and most prolonged winters for several decades. In the minds of many people this seemed to confirm the view that the evidence for global warming was limited at best, and that the views of climate change sceptics were to be taken seriously. Furthermore, the winter’s experience came after the Copenhagen climate negotiations made little progress, and was also in the aftermath of a major controversy concerning climate change research at the University of East Anglia in the UK.

In this context- of suspicion over the reality of climate change - many people in Western Europe found it difficult to believe that the month of January 2010 was actually one of the warmest on record. This was the case when expressed in global rather than European terms - while the north-east Atlantic had been experiencing severe cold, parts of North America had warmer than average winters, and temperatures were high in many other parts of the world.

As 2010 progressed, two other weather events and one oceanic development added further to a sense of uncertainty. For much of the mid-summer period, Russia experienced exceptionally high temperatures which, in the case of the greater Moscow region, resulted in numerous forest fires leading to smog over the city. At the same time, further south in Central Europe, there was widespread flooding across 8 countries. In addition to this, there were appalling floods in Pakistan as the monsoon season was marked by some of the heaviest rainfall in decades. The full scale of the losses in Pakistan is still not clear.

Few climate scientists sought to claim that these weather events were direct indicators of climate change, but an indirect connection was certainly suggested. While it may be a common mistake to confuse “short-term weather” with “long-term climate”, it has been widely predicted that as the atmosphere of the entire planet slowly heats up, then weather systems should be expected to become more energetic, leading to extremes of weather events such as intense tropical storms, exceptional monsoons or continental heat waves. The experiences in Russia and Pakistan could be no more than equivalent to some of the extreme events that have been witnessed in the past, but their conjuncture at least reminded many people of other aspects of climate change.

The final element for 2010 was not a weather event as such, but a report that the Arctic Ocean was experiencing one of the most substantial losses of mid-year sea ice on record. What seemed particularly surprising was that this should be happening within a matter of months of such a severe winter in the north-east Atlantic. In fact, the loss of sea ice was within the predictions that climate change models have produced in recent years. The overall impact of the loss of sea ice and the extreme weather experienced in Russia and Pakistan meant that by early September there was a widespread sense, once again, that climate change should be taken seriously.

## Climate Change in Context

The possible impact of increased carbon dioxide levels in the atmosphere was well recognised over 40 years ago, and by the end of the 1980s there was serious concern that there would be substantial changes in the planet's climate if carbon emissions were not curbed. Although not directly related to climate change, the potential destruction of the ozone layer through the release of CFC pollutants was recognised in the mid-1980s as being the first clear example of human activity having an impact on the entire global ecosystem. The ozone problem was relatively easy to counter, since CFCs could be replaced, and phasing them out through the Montreal Convention was agreed in 1987. Partly because of the sudden and serious nature of the CFC issue, climate change research was attracting far more attention by 1990.

At the same time, there was one aspect that limited the extent of the concern. This was that studies of natural climate change in prehistoric times have indicated that most of the impact was in the north and south temperate latitudes. If this was repeated with human-induced climate change then at least the countries most likely to be affected would be wealthy enough to be able to adapt. With the tropics and sub-tropics buffered against excessive impacts, poorer people across the world might have less to contend with.

By the early 1990s, advances in climate change science showed that the pattern of natural climate change would not be repeated by human-induced change, and that those parts of the world least able to cope would be seriously affected. By the early part of the 2000s, further work was actually showing that there would be an asymmetric impact. In broad terms, large parts of Antarctica, the southern oceans and the southernmost parts of the continental land masses would experience the smallest increases in temperature, whereas the Arctic region and most northern, sub-tropical and tropical land masses would experience above-average increases. There were also indications that rainfall would tend to increase over the oceans and Polar Regions but decrease over the tropical and sub-tropical land masses.

The implications of this more recent understanding are profound, since those populations and societies least able to cope with the impact of climate change will have to contend with substantial changes. Decreases in crop yields and consequent food availability will be among the factors likely to make societies much more fragile and unstable, one effect being very substantial increases in migratory pressures, with these being strongly resisted by wealthier countries. When seen in combination with the persistent socio-economic divisions that already exist across the world, the potential for serious social unrest and political instability is considerable.

## The Recent Politics of Climate Change

Among those resisting the implications of climate change have been large trans-national oil companies and oil-exporting countries. The former have funded policy institutes and others to promote critiques of climate change research and the latter have been deeply reluctant to support international protocols limiting carbon emissions. Beyond these forces, which may be powerful and well-funded, a much more serious issue in the first decade of the 21<sup>st</sup> century was that the world's largest emitter of carbon, the United States, had an administration in power that was deeply suspicious of climate change. The United States withdrew from the Kyoto Climate Change Protocol within months of George W Bush assuming office in 2001, and throughout the next eight years, the United States played little part in climate change negotiations.

While this altered with the election of Barack Obama in 2008, by the middle of this year, part of the opposition to his administration was coming from the Tea Party Movement and other right-wing elements in the Republican Party, one feature of their outlook being a deep suspicion of climate change combined with strong opposition to any limits on carbon emissions. November's mid-term elections to Congress

may determine whether these views solidify in Congress, - a major risk, if the Democrats lose control of either house.

### **Climate Change and the Military**

We are at a point where a combination of factors, including the attitude of the Obama administration, means that the risks emanating from climate change are being more generally recognised. This coincides with a significant change in attitude among military planners. In military planning units and security think tanks across the western world climate change is now seen as one of the key future drivers of insecurity. It is an outlook that stems partly from a tendency for military analysts to look long-term. Unlike most political and commercial institutions that tend to focus on 4-10 year time spans, military planning is frequently much longer term, to a certain extent because military forces depend partly on the development of systems involving development and procurement processes that stretch over decades.

Much of the analysis on climate change coming from military sources produces results that coincide with the ideas of radical environmental analysts, pointing to the social and political consequences, the risks of state failure and the rise of radical oppositional movements. However, when it comes to responses, the primary military focus is on maintaining the security of the state, either on its own or in alliance with others. This is to be expected and is legitimate from the perspective of a military organisation – its reason for being is to keep the state secure. Thus, the emphasis may be on increased border security and the patrolling of potential migratory routes, and the intervention capabilities necessary to stabilise failing states and ungoverned space that may be a consequence of the impact of climate change. What this almost never involves, is advocating the primary preventative measure that is required for responding to climate change – a rapid move towards an ultra-low carbon economy.

### **The Military Complication**

Discussions with military analysts, including those who are engaging with Oxford Research Group's Sustainable Security Programme, frequently focus on issues concerning climate change and security. There is sometimes recognition by some in the military that there should be a role for senior military officers in advocating a low carbon transition as part of a process of conflict prevention. The complication is that the loss of a decade at the start of the current century means that there will inevitably be numerous impacts of climate change, even if a low carbon transition can be achieved in the next two decades. From a military perspective it can therefore seem reasonable and legitimate to plan for security consequences. The problem is that this can have the negative effect of providing a political excuse to slow down the rate of transition. If "we", in a rich country, can maintain our well-being by protecting ourselves from the security impacts of climate change, then engaging in the huge changes involved in a low carbon transition can assume a lesser political priority. This is an attractive proposition for most politicians given the likely electoral unpopularity of the transition.

The response to this "securitising" of climate change is that some adaptation is undoubtedly going to be required, but that little of this has to do with the military. There will need to be a far greater focus on issues such as improving water management across the tropics and sub-tropics, breeding more drought-tolerant crops, preparing for more severe storms and protecting low-lying regions, but these are not the ultimate answer to climate change. That involves addressing the problem at root – controlling and minimising carbon emissions.

A substantial element of Oxford Research Group's Sustainable Security approach is the recognition that conflict prevention is at the root of society's response to climate change, and that the next five years are crucial in moving towards a more emancipated and environmentally sustainable world. Where there is much work to do is in convincing those in the international security community that it is essential to prevent climate change and that responding to it by protecting elite societies is fundamentally

inadequate. It is a huge task but it is at least aided by the manner in which military analysts do have the ability and willingness to think long-term. That is a welcome asset in difficult circumstances.

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