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# FIGHTING CLIMATE CHANGE DENIAL: CLIMATE DISRUPTION IN PERSPECTIVE

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#### Introduction

Oxford Research Group's work on 'sustainable security' is centred on four trends that are likely to influence international and intra-national conflict in the coming decades – climate change, socio-economic divisions, resource scarcities and militarisation. It addresses a dysfunctional security paradigm that is centred on responding to threats rather than concentrating on and preventing the underlying causes. The first of these, the issue of climate change, is one that has overwhelming scientific support, yet arouses very strong and determined opposition. The recent report from the World Meteorological Organisation (WMO) on global climate weather trends from 2001-2010, published on 3 July 2013, may help tip the balance in favour of responding in time to the risks of climate disruption.

# **Climate Denial**

The denial of any problem arising from greenhouse gases accumulating in the atmosphere stems from three factors. One, inevitably, is lack of political will because of the electoral risks of taking the short-term radical action on carbon emissions necessary to prevent long-term problems. While the impacts of climate disruption will come into effect over the next three decades, action is required in the next 5-10 years, if we are to mitigate some of these impacts – action that may be electorally unpopular in the short-term. Denial also stems from powerful economic interests linked to the fossil fuel industry: Both companies and producer countries are willing to fund interest groups that deny that there is a problem. Finally, there is the wider issue that preventing climate disruption requires governmental and inter-governmental action involving considerable economic management that runs against the idea of the free market. Because of this, many free market interests, as well as the fossil fuel industry, are deeply reluctant to acknowledge the risk of climate disruption. To put it bluntly, if the free market cannot cope with the causes of climate disruption, then it is not wise to acknowledge that there is a problem. To do so is ideologically inappropriate.

The impact of the climate denial lobby has been impressive and included what amounted to the 'lost decade' of the Bush era, although this is being countered by the relatively more progressive Obama administration and the recent positive discussions with the Chinese authorities. Even so, the distinct lack of inter-governmental progress since Copenhagen means that the issue is becoming more urgent.

# **The World Meteorological Organisation Report**

Moves towards highlighting and mitigating the impact of climate disruption may be helped by the next Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), due at the end of October. This will include a number of updated predictions on the impact of carbon emissions. The problem is that much of this will stem from computer models, which, however accurate, can readily be dismissed by the denial lobby simply as models. This is where the recent WMO report is potentially very significant, since it is concerned primarily with actual

trends recorded over more than a century and a half. The report's analysis of temperature and rainfall figures for the first decade of the new century (2001-2010) is complemented by the use of data trends since the mid 1800s, when accurate temperature measurements were first available on a large scale.

The WMO's analysis of this recent decade confirms the upward trend of temperatures but also points to the increased frequency of climate extremes, the one trend that might prompt a serious response from governments. As to the trend in global warming, the WMO reports that the decade was the warmest ever recorded for both northern and southern hemispheres and for both land and sea temperatures. In terms of longer trends, the overall rise from 1901 to 2010 has been nearly one degree Celsius, but more than half the increase has been since 1980. According to the WMO, the rate of temperature rise in the past two decades has been unprecedented.

In addition, a combination of melting of the Antarctic and Greenland ice sheets and thermal expansion of the oceans as they warm up means that not only are sea levels rising, but the rate of this rise is also accelerating. In the decade just gone, the rise averaged 3 mm per year, nearly double the yearly average of 1.6 mm in the twentieth century. What is particularly striking is that the global sea level average in 2010 was 20 cm above the level for 1880.

All of this data from the WMO is based on *actual measurement*, not prediction, and is, over a long-enough timescale, going to make it difficult for the denial lobby to contradict. Even so, that is the likely reaction, which is why the other element of the WMO report, on severe weather events, is so significant.

# **Extreme Weather**

The past few years have seen a remarkable range of extreme weather events, including the droughts in Australia, the Amazon basin and Eastern Africa, the Russian heat wave and wildfires, the appalling floods in Pakistan, Hurricane Katrina in the US and Cyclone Nargis in Burma. The report shows that the intensity of high-impact climate extremes has been unprecedented in the recent decade, and one way of recognising this is the number of casualties resulting from the events. The WMO estimates that 370,000 people have died as a result of extreme weather, an increase in 20% over the previous decade, even though emergency aid in the event of such extremes has improved. So far, it does not appear that extreme weather events are getting more frequent – rather, when they do occur, they are, on average, worse than in the past.

The weight of opinion among meteorologists and climate scientists is that the increased severity of weather events is a clear marker of the longer-term impact of climate change, one of the reasons why the term 'climate disruption' is being used more frequently. It is rather like the canary in the coalmine – an indicator of what is to come. If this is the case, then we can expect many more examples of severe weather in the next five years or so, and this may be the factor that finally persuades governments to act.

There is a parallel here with the ozone depletion crisis of thirty years ago. CFC pollutants were predicted to damage the high altitude ozone layer, which could have been disastrous as it lost the ability to screen out excess UV radiation from the sun. The 'canary' then was the discovery of an actual 'ozone hole' over the Antarctic, a very clear warning of what was to come and leading to the inter-governmental Montreal Convention of 1987, through which CFCs were

phased out. What the Antarctic ozone hole did for CFCs, extreme weather might just do for carbon pollution, but with much worse human consequences in the short-term.

### **The Predicament**

There is, however, a problem in convincing governments to take stronger action to stem the impact of climate change: There may be a short-term decrease in the rate of global warming caused by two quite different factors. One is that the oceans seem to be absorbing rather more heat than anticipated by early modelling, for reasons that are not yet clear. This does not mean that things are not warming up. Instead, it means that the impact is being partly hidden in the short-term, though warmer oceans may, within a few years, have profound impacts on terrestrial weather events, given the existing impact of the oceanic heat store on climate. The other is that the Southern Oscillation (El Niño/La Niňa) has recently been in something of a cooling phase rather than a warming phase, part of a long-term cycle, again serving to disguise the impact of carbon emissions. This phase is also likely to be short-term, with the Southern Oscillation expected to be in a warming phase in the latter part of this decade, leading to an acceleration of overall atmospheric and oceanic warming.

In one sense, the two factors together may be slowing the impact of climate disruption – a welcome development, but, most probably, to last only a few years, before things get rapidly worse. If this is the case, we have a bit of a breathing space in which to set in train radical carbon emission reductions. However, it seems that the denial community will simply continue to say, as is already happening, that the world is not warming and there is not a problem!

It is this situation, which requires wisdom, commitment and dedicated action. This is why Oxford Research Group's work on 'sustainable security' is so necessary. The aim is to show how climate disruption can only be prevented in the long-term by urgent action in the shortterm. The more that message can be delivered, not just to political leaderships, but to much more broad-based communities, the better. If 'prophecy' means 'suggesting the possible', then prophecy on this issue is crucial.

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