

# THE SECURITY IMPLICATIONS OF A CHANGING CLIMATE

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Experience and evidence over the last few years has reinforced what many in the security community have long acknowledged; the impact of a changing climate is much more than an environmental issue.

Today we are seeing many threats to our prosperity and wellbeing, which underpins our national security. Some are well known and can be categorised as 'traditional' threats, either state on state or intra state, frequently with a military component. Examples might include the risks resulting from increased tension in the China Seas or the Eastern Mediterranean.

But we are also seeing an increase in 'non-traditional' threats. Frequently transboundary and without a military origin, this category includes cyber threats, organised crime, people trafficking and pandemics such as the one we are still living through, Covid 19. However, the one that probably poses the greatest challenges over an extended period is the consequences of a changing climate, especially when it impacts on the availability of key natural resources, such as food, water and land.

Climate change is different from other drivers of instability because it impacts countries through multiple routes simultaneously. It pushes natural systems outside historical ranges and in doing so stresses existing managerial regimes, at local, national and international levels; regimes that have evolved to deal with only limited climate fluctuations.

That is not to say that the physical changes alone, either as a result of the onset of long term warming trends, or the increased frequency and intensity of extreme weather events, are going to be the direct cause of conflict. Rather, it is the second and third order consequences, including loss of land or livelihood, that are contributing to increased instability and risk of conflict.

Whilst the consequences will vary from country to country, community to community, the effects are already being felt globally. Loss of land as a result of rising sea level and ingress of salt water into the aquifers, decreasing crop yields due to increased temperature or extreme drought, combined with

reduced water availability and subsequent pressure on existing water treaties, are testing the resilience of society.

Examples of regions where the impact is greatest include, the Middle East and North Africa (MENA), the Sahel, Caribbean and Asia (South and South East). The UNDP has calculated that in the MENA region by 2025 the water supply will only be 15% of 1960 levels, whilst the population is growing at 3% per annum. The probability of the most serious types of droughts in countries such as Syria will triple.

In Iraq water is critical to the government's plans for providing its citizens with a brighter future, specifically to support increased agricultural jobs to reduce incentives to (re-)join insurgent groups. A combination of increased demand due to population growth, temperatures rising at twice the rate of the world average and upstream damming of the Euphrates and Tigris by Turkey and Iran is impacting on agriculture (which uses 80% of the country's water and employs 30% of the population) and economic development. Climate change is increasing both domestic pressures due to drought, external pressures as Turkey withholds a larger proportion of dwindling river resources, and by raising the risk of external food price spikes.

Frequently the countries and regions where this happening are already suffering from other stresses (health issues, demographic challenges due to population growth and greater longevity, existing food and water shortages, etc) and poor governance; countries that have neither the capacity or the resilience to look after their citizens. Hence, the description of climate change as a 'stress multiplier'.

So what are the likely consequences of this increased stress? Based on past experience, it will either be:

- a. Large unplanned movements of populations, principally within countries, as was the case in Syria, where because of a prolonged drought, in part a result of the changing climate, there

was movement from rural to urban areas, exacerbating existing tensions. Where large areas are affected, i.e. the Sahel or Bangladesh, trans-boundary movements can be expected, which raise international tensions.

- b. Trapped populations, who do not have the ability to move and, in their search for an alternative livelihood, may turn to communal conflict over resources (as seen in Chad and Nigeria) and become susceptible to becoming involved in organised crime or supporting violent extremist organisations, such as Al Shabaab or Boko Haram.

In both cases, such conditions have the potential to increase the risk of instability or conflict.

However, the problem is wider than just in these regions, on two counts. Firstly, today the physical effects of climate change are impacting on food production on a global basis and compounding the problems that were already there as a result of historical poor land and water management. Something that is happening at a time when populations are still rising and communities have greater aspirations.

Secondly, by the very nature of the interconnected world that we live in events in one region have the potential to impact on another. Instability induced volatility in prices of food and raw materials, especially fungible products such as wheat or hydrocarbons, will impact on the economic security and growth of all countries.

The impact on richer nations, such as Great Britain, should not be under-estimated, as demonstrated by the 2011 Thai floods and more recently during the current pandemic, our supply chains are very vulnerable to disruption. Extreme weather can quickly disrupt the 'just enough just in time' supply chains, with the attendant knock on impact to profitability and in the medium-term withdrawal of foreign investment from vulnerable regions, further undermining their stability. Climate induced water shortages in regions such as the Horn of Africa can contribute to increased risk of disruption of the

trade lines of communication, including the Straits of Bab El Mandeb, which in turn will result in reduced Suez Canal receipts and further pressure on the Egyptian economy.

These multiple impacts present a risk of ‘social tipping points’ where repeated crises cause countries to restrict core commodity exports and reduce investment and cooperation abroad. This will increase the vulnerability of fragile countries, reduce incentives for cooperation and raise political tensions. The dynamic between India and Bangladesh over economic migration, and resulting deaths on India’s border fence, are an example of how tensions linked to environmental change – in this case flooding – can be magnified by badly managed responses.

So what do we need to do to reduce the risks to our prosperity and wellbeing posed by a changing climate? We need to address the root cause of the problem and success here will only be achieved when sufficient action has been taken to avoid a dangerous rise in global temperatures; as identified in the 2015 Paris Agreement, this will require nations to reduce future GHG emissions to net zero by 2050.

At the same time nations need to minimise the damage caused by climate change, resulting from historical emissions. In part this will require richer nations to help more vulnerable ones to develop the capacity and resilience to address the stresses that they will face, but it will also require all nations to tackle the loss of biodiversity and in particular the damage that has been done to soil health and water quality. The restoration of national soil health, and increased food sovereignty, should be seen as a security priority by all nations.

The specifics of how this is done will vary from region to region but it must be done in a manner that does not increase the risks of climate change and undo the good work in other areas. This is particularly the case in terms of land use and agriculture. It is essential that efforts to mitigate global warming, adapt to climate change and restore biodiversity and soil health are complementary. This will require nations and communities to work together and share best practice, for only when all have access to secure, sustainable, and affordable supplies of food and water will we have the basis for prosperity and wellbeing, which in turn will contribute to reducing the security risks associated with a changing climate.