Climate change conflicts

By Agnès Sinai
Source: Le Monde Diplomatique
August 31, 2015
Change text size: [A+] / [A-]
Email

Posted in: Climate Change, Ecology, Global, Global Warming | 1 comment

Between 2006 and 2011, Syria had its worst prolonged drought and crop failures since civilisation began in the Fertile Crescent. One and a half million people out of a total population of 22 million were affected by desertification, and many arable and livestock farmers and their families migrated to towns, worsening the tensions caused by the influx of Iraqi refugees after the US invasion of 2003. The Syrian regime has neglected Syria's resources for decades, subsidised the cultivation of wheat and cotton, which need plenty of water, and encouraged inefficient irrigation techniques. Over-grazing and a rising population worsened the problem, and Syria's water resources fell 50% between 2002 and 2008.

The collapse of Syria's agriculture comes from an interplay of climate change, poor natural resource management and demographic dynamics. "A number of significant social, economic, environmental and climatic changes in Syria have eroded the social contract between citizen and government … strengthened the case for the opposition movement, and irreparably damaged the legitimacy of the Assad regime," write Francesco Femia and Caitlin Werrell of the Centre for Climate and Security, who argue that the emergence of IS (Islamic State) and its expansion in Syria and Iraq are in part a consequence of the drought (1). The drought is not just the result of natural climate variability, since, according to the *Proceedings of the National Academy of Sciences*: "Precipitation changes in Syria are linked to rising mean sea-level pressure in the eastern Mediterranean, which also shows a long-term trend. There has been also a long-term warming trend in the eastern Mediterranean, adding to the drawdown of soil moisture. No natural cause is apparent for these trends, whereas the observed drying and warming are consistent with model studies of the response to increases in greenhouse gases" (2).

Wheat and bread prices soar

In eastern China in the winter of 2010/11, drought and sandstorms prompted Wen Jiabao's government to fire rockets to trigger rain. Crop failures forced China to buy wheat on the international market, and the resulting spike in the world price worsened popular discontent in Egypt, the world's largest wheat importer (its households often spend more than 33% of their income on food). Wheat doubled in price (from $157 per tonne in June 2010 to $326 in February 2011), which had a marked impact on Egyptians, as bread prices tripled, increasing popular resentment against Hosni Mubarak's authoritarian regime.

In the same period, southern hemisphere wheat, soya and maize harvests were affected by La Niña, a severe climate event that caused drought in Argentina and torrential rains in Australia. Solomon Hsiang, Kyle Meng and Mark Cane describe in *Nature* the correlation they have established between civil wars and the El Niño Southern Oscillation (ENSO), which every three to seven years causes an accumulation of warm waters along the coasts of Ecuador and Peru and a reversal of the Pacific trade winds, associated with major global meteorological events (3). They calculate that the probability of civil conflicts doubles during ENSO, the first demonstration that the stability of modern societies is highly dependent on climate.

Climate change has become a threat multiplier and is changing international relations. Hard security, inherited from the cold war, has been replaced by "natural security", a concept thought up by the US military at the Centre for a New American Security, a thinktank established in 2007 to counter climate change scepticism and identify emerging global threats. Sources of environmental insecurity are no longer confined to natural phenomena such as volcanic eruptions, tsunamis and earthquakes. Human activity, the acceleration of production cycles and their globalisation all contribute to climate instability. The neologism "anthropocene", describing the current human-dominated era, acknowledges the exceptional impact that industrial societies have had on climate.

Melting of the Arctic ice

In the Arctic, where all the ice may have melted by the end of this century and the effects of global warming are twice as intense as elsewhere, claims over new land and sea borders have revived tensions. Russia, which has conducted Arctic exploration for centuries, is the only nation with a fleet of nuclear icebreakers. A giant ship, currently under construction in St Petersburg's naval dockyards, will be completed in 2017. Moscow is also renewing its fleet of ultra-quiet, fourth-generation submarines capable of launching nuclear warheads. On the US side, the opening up of the Arctic is presented as a commercial bonus (links to Asia) and an opportunity to secure new energy resources (4).

The melting of the Arctic ice produces systemic effects. Variations in the polar vortex, an icy wind from the North Pole, caused the intense cold that affected North America in the winter of 2013/14. "The interaction between the Arctic and global warming is something new in strategic human history, because it transforms the meeting of geography and geophysics in this region into a new and strange power, one which is geophysical in nature and which we refer to as the environmental power of the Arctic. This operates on a global scale, with huge consequences," said military strategist Jean-Michel Valantin (5). The Intergovernmental Panel on Climate Change (IPCC) has emphasised that there is no settled theory making it possible to assert that armed conflicts at the North Pole are likely. But the melting of the ice will test the robustness of the cross-border circumpolar institutions, such as the Arctic Council. Causation is complex, unstable and changing; the degree to which the effects of climate change weigh on societies will depend on the resilience of their political, economic and social systems (6).

In his book *Climate Wars,* Gwynne Dyer describes a world in which global warming accelerates, and refugees, hungry because of crop failures and forced to move by rising sea levels, try to reach the Northern hemisphere. Countries at higher latitudes, still self-sufficient in food, defend themselves — sometimes with nuclear weapons — against aggressive neighbours: the countries of southern Europe and the Mediterranean coast, which have become deserts (7).

Effects of geo-engineering

Faced with what some scientists call "anthropogenic climate disruption", geo-engineering — deliberate intervention to counter global warming — is an attempt to take control of the climate. It embraces techniques to remove carbon dioxide and manage solar radiation, but risks introducing major social and ecosystem destabilisation. Sulphur spraying is supposed to produce a sufficiently thick layer in the atmosphere to impede the sun's rays and cool the planet. But observing volcanic eruptions has led climatologists to conclude that, though sulphur particles may contribute to cooling the atmosphere, they also cause regional droughts and may reduce the effectiveness of solar panels, degrade the ozone layer and weaken the hydro-geological cycle. The most recent IPCC report warns: "Without global agreements on how and how much geo-engineering to use, SRM [solar radiation management] presents a risk for international conflict. Since the direct costs of stratospheric SRM have been estimated to be in the tens of billions of US dollars per year, it could be undertaken by non-state actors or by small states acting on

their own, potentially contributing to global or regional conflict."

Climate change creates not only the causes of violent conflicts, but also new kinds of wars, according to psycho-sociologist Harald Welzer: "Extreme violence establishes forms of behaviour and experience for which the largely peaceful western hemisphere of the post-second world war period offers no frame of reference" (8). Asymmetric conflicts between peoples and warlords in the service of big private groups are combiningin an ecosystem of violence exacerbated by global warming. The chaos in Darfur (Sudan) since 1987 is typical of this self-destructive dynamic, worsened by the weakness of states. In northern Nigeria, the degradation of land has disturbed rural ways of life and interfered with migratory routes. Several hundred villages have been abandoned and the resulting migrations have added to regional instability, giving opportunities to the Islamist group Boko Haram.

The most recent IPCC report describes compound risk, the convergence of multiple impacts with a given geographical area: "Because annual temperatures around the world are expected to rise 2 to 4 standard deviations, there is potential, *ceteris paribus* [all things being equal], for large relative changes to global patterns of personal violence, group conflict, and social instability in the future."

Marshall B Burke of the University of Berkeley, California, and his co-authors anticipate a 54% increase in armed conflicts by 2030. Their study provides the first overall evaluation of the potential impacts of climate change on wars in sub-Saharan Africa. They illuminate the link between civil war, rising temperatures and lower rainfalls, extrapolating the IPCC's median projections of greenhouse gas emissions for these regions between 2020 and 2039 (9).

The flow of refugees towards Europe's haven of prosperity is likely to further increase this century. The political scientist François Gemenne says: "There are today at least as many displaced people in the world as a result of environmental degradation as people displaced through wars and violence." These migrants are fleeing from distant wars, yet the West, despite its historical responsibility for global warming, refuses to acknowledge their status: "Denying the term 'climate-change refugee' amounts to denying the fact that climate change is a form of persecution of the most vulnerable." These are victims of a transformation beyond their control.

Agnès Sinaï is an environmental journalist and a senior lecturer at the Institut d'Etudes Politiques de Paris

(1) "The Arab Spring and climate change", The Centre for Climate and Security, Washington DC, February 2013.

(2) Colin P Kelley, Shaharzad Mohtadi, Mark A Cane, Richard Seager and Yochanan Kushnir, "Climate change in the Fertile Crescent and implications of the recent Syrian drought", *Proceedings of the National Academy of Sciences of the United States of America (PNAS),* vol 112, no 11, Washington DC, 17 March 2015.

(3) Solomon M Hsiang, Kyle C Meng and Mark A Cane, "Civil conflicts are associated with the global climate", *Nature,* no 476 (7361), London, 25 August 2011.

(4) "National Strategy for the Arctic Region"(PDF), White House, Washington DC, 10 May 2013.

(5) See Jean-Michel Valantin, "The warming Arctic, a hyper strategic analysis", The Red (Team) Analysis Society (www.redanalysis.org), 20 January 2014.

(6) IPPC, *Climate Change 2014: Impacts, Adaptation and Vulnerability,* Cambridge University Press, Cambridge/New York, 2014.

(7) Gwynne Dyer, *Climate Wars: the Fight for Survival as the World Overheats,* Oneworld Publications, London, 2010.

(8) Harald Welzer, *Climate Wars: What People will be Killed for in the 21st Century,* Polity, Cambridge, 2012.

(9) Marshall B Burke, Edward Miguel, Shanker Satyanath, John A Dykema and David B Lobell, "Warming increases the risk of civil war in Africa", *PNAS,* vol 106, no 49, 8 December 2009.

Jesse B August 31, 2015 2:50 pm Log in to Reply

This is a good article. For another source, I'd suggest Christian Parenti's Tropic of Chaos; it has sociological tone and is worth a read.