

# Climate Change Deaths

by Bob Barnett

**C**limate Change and the Health of Nations: Famines, Fevers and the Fate of Populations by Anthony McMichael was published by Oxford University Press in 2017, following Tony's death in 2014, after a lifetime studying how the collapse of most empires and civilizations had roots in climate change.

The book covers the potential impact of climate change much more graphically than I ever could. It's a great book and not just doom and gloom but filled with lessons on what went wrong and what we can learn.

In McMichael's own words: "Earth's climate has been on a roller-coaster ride since the planet first coalesced from cosmic debris 4.6 billion years ago. Mighty geological rifts and ruptures along with the more orderly cosmological cycles have ensured a restless global climate. From violent beginnings with an atmosphere dominated by volcanic eruptions, storms and lightning the global temperature has swung hugely and erratically; alternating periods of great warmth and icy glaciation have come and gone."

Our homo sapiens outlasted and outperformed the other, now extinct, evolutionary humans. He documents scores of civilizations with the reasons for their evolution through improved food and living standards over the last 12,000 years and the reasons for their disappearance from climate changes during Ice Ages, El Niño changes, droughts, floods, rising sea levels all causing hunger, disease, population migrations, extreme stress, emotional injury and wars that rewarded other less-weakened groups.

"In some situations, cultural and social dependence on sophisticated technology and infrastructure restrict the options for adaptation," he writes. "Low-lying flood-endangered coastal urban populations cannot pack up their city and relocate inland; nomadic pastoralists can, if the hinterland is not occupied by others. Today's larger populations, fixed settlements and lack of vacant land make migration more difficult."

## Climate Stresses

"A familiar but naive argument is that modern populations are different from their predecessors; they have knowledge, experience, superior technology, interconnectedness and more flexible governance. One-third of the world's population live in conditions more like the past. In many ways, higher income societies are better placed to cope than were our predecessors, but in many other ways they are at a disadvantage. The severe heat wave in Europe in August 2003 killed more than 70,000, many trapped in higher levels

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of apartment buildings. Heat disrupts sleep, cause stress on the human body as the heart works harder. The heat wave in Russia in 2010 that killed 55,000 people was the worst recorded in the world for at least the last 30 years. Modernizing populations are...more

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"Population numbers are still increasing, food production systems on land and sea are under stress from soil degradation and loss, there are water shortages on many continents and our oceans are over-fished.

"Climate change does not register on the personal 'risk thermostat.' We naturally respond to external threats that are immediate and visible, have an obvious cause, and will affect us directly. But climate change is invisible, long-term, and unfamiliar....we are the cause."

He quotes Harvard psychologist Daniel Gilbert, "Because we barely notice changes that happen gradually, we accept gradual changes that we would reject if they happened abruptly."

McMichael continues "The world community has wasted much of the last 25 years arguing about climate science, defending national interests, fretting about threats to our growth-dependent economies and being distracted by the global financial crisis. Meanwhile, at least five million extra deaths have occurred worldwide, particularly in children, that are reasonably attributable to recent climate change. And yet we find it difficult to look beyond the climatic threat to polar bears, Amazonian forests and

coral reefs. Climatic threats also apply to Homo sapiens - another animal species, albeit one with a unique cultural and technological veneer that might confer some early protection against climatic stresses."

## Some Will Survive

McMichael leaves us with hope and a course of action: "Yet our species has not been tested collectively, globally, like this before. Human ingenuity and imagination may flourish as never before. Alfred Russel Wallace wrote in light of his often-harrowing experiences in the Amazon 'It is the struggle for existence... which exercises the moral faculties and calls forth the latent spark of genius.' If we learn from the past, understand the present, and imagine a better and more sustainable future, we may yet call forth such sparks to ignite corrective action and light the path to a sustainable way of living on a finite planet."

We are in another climate catastrophe, just like species in the past, but this one is not just effecting one empire or civilization but the entire globe. Some species will adapt and survive. We can cooperate, adjust our resource uses and work with our natural systems. E.O. Wilson, American ecologist, suggests that we need to protect half of the earth if we are going to save more than cockroaches and keep the world habitable for people.

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