

## Climate Wars: The Fight for Survival as the World Overheats by Gwynne Dyer, 2010

This is one of the single best books on climate change that you can read today. While it gives the basics of climate change science and is highly up-to-date with the latest research, its greatest value lies in its readability (clear, understandable and suspenseful!) and in the way it brings alive the implications of climate change for human and world politics, showing the wide range of events and human reactions (protectionism, etc) that could affect us as much as climate change itself. The book might well have been titled *The Politics of Climate Change* or *Politics on a Crowded Planet*.

Gwynne Dyer is a well known British journalist specializing in international affairs. In *Climate Wars*, Dyer is the realist, telling it like it is: people are *not* likely to change their lifestyles, developing nations *are* going to continue developing, *are* going to use cheap coal and oil, *are* going to eat more and more meat, population *is* going to continue to grow, and shortages *are* going to increase international competition for food, fuel and water. All of this makes an international climate deal very unlikely, so the planet will continue getting warmer, with feedbacks kicking in that increase the rate of warming, and system delays that mean we do not see what is happening until after it is too late. Year by year the seas will rise, rivers will dry up, food will become scarcer and many will die of famine, disease and war. Law and order will break down in many countries, stronger nations will resort to isolationism and protectionism. The globalized economy will first falter, then fail, eventually endangering the high technology that is the base of modern civilization and simultaneously is our only hope of controlling the climate.

Sound like a nightmare? Dyer makes this and other scenarios seem entirely plausible through very convincing interviews with experts and through his use of flashbacks from the future, say in 2020, 2035 or 2050. These flashbacks help us understand the ramifications of climate change and its implications for national and world politics. In these we see how food and other resource shortages very plausibly may lead to starvation, disease, wide-spread migration and war, because governments do not sit idly by while their citizens starve, and because people do not sit passively when they cannot feed themselves or their families. Dyer's fictional flashbacks and intervening factual chapters are cleverly sequenced to give us a taste of the spectrum of possible ways in which the future *could* play out, without evaluating their likelihoods. Both factual chapters and scenarios build heavily on interviews with established experts in climate change, military affairs and politics. Citations from these interviews lend authority and a sense of urgency to the discussion—these are not mere speculations into the future but emerging realities that politicians, scientists, the military and civil servants today are working with in efforts to avoid very real catastrophes in future .

Dyer's main message is that climate change is here, it is very serious and human politics is such that we will have great difficulty avoiding a breakdown of modern, globalized, high-tech civilization. And if global community with its high technology does break down, mankind loses her only chance to ameliorate climate change and hinder runaway global warming. This dire warning comes now only half a year after famed NASA scientist James Hansen's similar warning in *Storms of My Grandchildren* (2009), and five years after Jared Diamond's important book *Collapse* (2005), in which Diamond describes the demise of earlier civilizations due to climate change, overpopulation and environmental degradation. Of course, overpopulation and environmental degradation alone are enough to radically harm our civilization—without climate change—as described in such earlier works as *Limits to Growth* by Donella Meadows, et al (1972), *Gaia* by James Lovelock (1979), and by Paul Ehrlich and Garret Hardin in numerous books and articles. Garret Hardin's famous article *The Tragedy*

*of the Commons* (1968) was itself, like Dyer's book, about how normal human behavior leads to destruction of common resources, necessitating strong regulatory politics to avoid it—politics that have mostly *not* been implemented, for example, in the arena of international fishing, or carbon emissions.

As if the current situation for mankind were not precarious enough (as the science, politics and flashbacks all lead one to believe), Dyer's last chapter, based on new research, describes how runaway climate change could lead to mass extinction of much of earth's advanced life forms, similar to previous mass extinctions in our planet's history (the last one, which wiped out the dinosaurs 65 million years ago, was caused by an asteroid impacting the Earth in Mexico). For those interested, this research concerns the release of hydrogen sulfide into the ocean (so-called Canfield oceans) and from there into the atmosphere, poisoning us and many of the other life forms here. For this chapter Dyer relies heavily on paleontologist Peter Ward and his book, *Under a Green Sky* (2007). The eminently readable work, *The Long Thaw: How Humans Are Changing the Next 100,000 Years of Earth's Climate* (2008) by geophysicist David Archer, is only slightly less pessimistic in regard to the long term effects of current carbon emissions and mankind's ability to survive past the next few centuries.

There are some bright spots in Dyer's book, however. At least one of the flashbacks shows how major nations, faced with steep rises in the price of oil, quickly mobilized and replaced transportation oil with sustainable fuels. Next, in response to public pressure following a number of climate-related catastrophes, these nations eliminated fossil fuels from energy production. In this flashback, a near global deal was achieved in 2026, leading to complete decarbonization of all economies by 2050. But because global warming had proceeded so far, it was necessary to use several untried and uncertain geo-engineering schemes to cool the planet until CO<sub>2</sub> emissions could be brought down—fortunately these temporary schemes worked (in Dyer's flashback), bringing the temperature down by 2 degrees, for a few decades.

On the whole, Dyer does not provide solutions—his task is to make us aware of the many imminent dangers from both the climate itself and from our all too human politics. For technical solutions based on existing technology, he refers us to the work of Lester Brown (author of *Plan B 4.0*), Amory Lovins (author of numerous books) and others. He also has a chapter describing some of the more promising (although highly speculative) geo-engineering proposals that could be used as temporary measures until human society is finally and totally decarbonized.

But what about the very real hinders in human nature and human politics that Dyer, Hardin and others point to, which keep us from cooperating to avoid climatic and environmental wipeout? While Dyer has little new to offer, Jared Diamond gives some hints in *Collapse: How Societies Choose to Fail or Survive*, in which he analyzes past societies that survived rather than collapse when faced with population pressure, climate change and a degraded environment (erosion, loss of topsoil, etc.). In short, says Diamond, there are two paths to survival: the authoritative or top down approach, and the democratic or bottom up approach. Sometimes it was a wise strong ruler that saved the society, as in the case of 18<sup>th</sup> century Japan and the 20<sup>th</sup> century Dominican Republic, sometimes it was cooperative, participative efforts, as with Iceland and the New Guinean highland societies.

One of the hinders to the participative approach is the human sense of fairness: we do not like to do all the work while someone else gets the benefits for free (freeloading). Dyer notes that a basic condition for international cooperation is North-South convergence of standard of living—this is widely understood at a human level, even if not widely accepted by a majority of the people in rich societies. The condition *within* national borders is similar: not too big a gap between the rich and the poor,

otherwise the society fails to act cohesively and constructively, to the detriment of all. This point is thoroughly researched and convincingly made by social scientists Richard G. Wilkinson and Kate Pickett in *Spirit Level: Why Equality is Better for Everyone* (2010). Thus more equality, leading to more cooperation and the active participation of everyone (as exemplified in the British and Allied war efforts during World War II), seems to be a key to our future.

Dyer could be put off as a pessimist and doomsday prophet, were it not for the expert testimony he cites time and again. It seems that the climate skeptics have succeeded in their purpose of sowing confusion and playing down the seriousness of mankind's situation, for here we see the behind-the-scenes analysis that responsible actors in all arenas (governmental, civic, business and military) are taking in order to protect us from possible future catastrophes. We have been lulled into a more hopeful state of mind than the situation warrants.

Dyer's final message, referring to scientist James Lovelock, is that we now have taken over as managers of the planet (which earlier managed itself quite well without us, thank you!), and for us to be able to do that we must maintain our highly integrated, high tech global society. However, in his own role as historian and political observer, he does not give us much hope for that—human nature is what it is and there are simply too many hinders. In other words, normal, business as usual behavior and politics is not going to save us. If we want to save ourselves and this once sustainable, rich, lush and beautiful blue planet, then it is up to us to change things. We must be creative and find ways around the hinders, and prove ourselves capable of managing the entire planet. There is, apparently, no going back to Eden—not with 7, 8, 9 or 10 billion people on the planet.

In summary, *Climate Wars* is not really about war, it is about how mankind is to survive long past the end of this century. You may not like the reading or some of the conclusions, but Dyer shows, through scientific authority, historical analysis and political thinking, that humanity's situation is far more acute than currently meets the public eye. *Climate Wars* gives insight and a real feel for how climate change exacerbates the existing resource problems of this crowded world, why it is so important that we act strongly and quickly, and how the difficulties of human politics hinder the needed action. Read it, reflect and then take action. For we may think we are masters of the planet and of ourselves, but climate change is showing us that we are not. Whether we can become so before warming catastrophes overtake our highly integrated, high-tech global civilization is now largely a political question, and you and I are the voters.

Archie Duncanson, Stockholm, August 2010