

Climate Change

St. Brandon's

Isaiah 6:1-13

10th February 2019

I have been thinking for a while now that it's time we talked about climate change. So, there won't, I'm afraid, be much connection to the readings this morning. That said, however, it was the Isaiah reading that triggered me into thinking this might be the day to look at climate change simply because it tells the story of a willing messenger, who is basically told by God that he must go and warn the people, but that it will make absolutely no difference. And that the result of the people not listening will be cities lying waste without inhabitants, and the land utterly desolate with a vast emptiness in its midst. And that describes pretty well how things might be on planet earth by the end of this century if we do not heed the warnings. But note also the final verse of that reading: "The holy seed is its stump". There is, despite the desolation, a final statement of hope here, albeit a rather muted one, of a remnant that will survive, and I'll come back to hope later.

One scientist has put our situation like this:

"We are perhaps the only species on earth to be conscious of the inevitability of our individual mortality. I fear that soon we shall also have to become the only species that will knowingly watch the coming of its own collective demise, or at least the demise of its civilization."¹

Climate change threatens the end of civilization as we know it. Now you might want to write me off as a cranky pessimist and simply switch off. I think I'm a cautious realist. But obviously, while I want to try to summarise the consensus scientific opinion, there are both dissenting voices, and predictions here that may or may not come true. I sincerely hope that they don't. I anticipate that they will.

So, we know that the world is warming up and that this is caused largely by the emission of fossil fuels – coal, oil, gas. So far, the surface of the earth has warmed on average by 1°C since pre-industrial times. In terms of a limit, the figure that has been usually quoted has been 2°C – in other words if we were to reach that point, it would be difficult to stop it, and climate change would get out of control. But in Paris back in 2015 there was a scientific and political consensus that the target should really be 1.5°C. And at the end of last year the Intergovernmental Panel on Climate Change issued a report explaining why it was so important to lower the target to 1.5°C.² And the basic reason is not only that climate change effects are obviously less at that lower temperature, but that beyond that point several other effects would cut in which would make it difficult if not impossible to control temperature rises.

Let me give you just one example. As the Arctic, Greenland and Antarctic ice sheets melt, instead of white surfaces reflecting the sun's rays back into and out of the atmosphere, dark water absorbs the heat. The less ice, the more heat is absorbed; the more heat the quicker the ice melts; and so on. It's what's called a positive feedback loop, and there are a whole series of other such loops potentially leading to a cascade of irreversible climate change elements which pose severe risks for health, economies, political stability, and ultimately the habitability of the planet for humans.³

¹ Carlo Rovelli (2015). *Seven brief lessons on physics*, translated by Simon Carnell and Erica Segre. London: Penguin Books, p.76.

² IPCC (2018). Global warming of 1.5°C. Summary for Policymakers. Available at: http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.

³ See Steffen et al. (2018), Trajectories of the Earth System in the Anthropocene, Proceedings of the National Academy of Sciences of the USA, 115, 33. www.pnas.org/cgi/doi/10.1073/pnas.1810141115.

How soon will we reach warming of 1.5°C? Somewhere between 2030 and 2052.⁴ It depends on a lot of things, not least how much carbon dioxide we continue to emit. But it is not long, and the science tells us that we have to start cutting global emissions, and cutting them fast, no later than 2020 – next year. And despite some things that are moving in the right direction – renewables made up 33% of UK energy production in 2018;⁵ we are installing huge banks of offshore wind turbines in the North Sea – globally carbon emissions continue to increase.⁶

Another scientist has put it like this:

“By the end of [this] century, our children and grandchildren will face a hostile climate, depleted natural resources, the destruction of habitats, the decimation of species, food scarcity, mass migrations and almost inevitably war.”⁷

That’s hardly a legacy to be proud of. I don’t find it easy to look at my grandchildren and think that this is the future they will inherit from me. And the demonstrations by school children over climate change, which began in Sweden and are due to arrive in the UK this week, are absolutely appropriate. Good on them.

But, of course, this isn’t only about the future. California had devastating wildfires in 2017 and 2018; in the summer of 2018 nearly 3,000 sq. miles of the state were turned to flame; in November 2018 wildfires forced the evacuation of 170,000 people from their homes. Each year, between 260,000 and 600,000 people worldwide die from the smoke produced by wildfires. Go back to 2005 and Hurricane Katrina submerged 80% of New Orleans causing 1800 deaths, with 1 million people displaced and 1 million homes and businesses destroyed. Or take the Pacific island nation, the Republic of Kiribati [*keer-i-bas*] on the equator between Australia and Hawaii, with 100,000 people spread across 33 coral atolls and reef islands with a high point of 6.5 feet above sea level, which has purchased 6,000 acres in Fiji, 1,000 miles away, ready for the day when their islands will be submerged and they have to move.⁸

We have a relative, Pam, who lives in Townsville in Australia. Virtually every piece of correspondence for the past 10 or more years has included commentary on the drought conditions there: no rain, no rain, day after day, year after year. Then last week they had such devastating floods that they had to open the dam above the town to prevent it bursting, 1,100 people had to be rescued from their homes, and 20,000 properties have been flooded or are at risk. Snakes and crocodiles have been seen in the streets. Pam emailed us to say she and her family were OK but commented “Can’t begin to imagine the length and cost of the clean up”. As usual, as with Hurricane Katrina, it will likely be the poor who will suffer most.

All of these are examples of what are known as ‘climate anomalies’ – things which wouldn’t normally happen but are consistent with the effects of global warming. All of these, of course, affect lives and livelihoods. The World Bank estimates, for example, that by 2050 there will be 140 million climate refugees from sub-Saharan Africa, Latin America and the rest of South Asia – more than 10 times the number from the Syrian crisis.

The Bible has a word for things that I am doing which knowingly cause harm to others – sin. Now of course climate change isn’t a case of one-to-one causation where blame can be allocated directly to me. It’s what’s known as a ‘collective action’ problem where each action individually doesn’t amount to much, but collectively it causes a problem. Collectively, we are harming others in the world now by our actions,

⁴ IPCC (2018), op. cit.

⁵ <https://inews.co.uk/news/uk-renewable-energy-production-levels-consumption-statistics/>

⁶ See <http://www.globalcarbonproject.org/carbonbudget/>

⁷ Jackson, T. (2009). *Prosperity without growth. Economics for a finite planet*. London: Earthscan, p.203.

⁸ See Robinson, M. (2018), *Climate Justice*, London: Bloomsbury for some of these, and plenty of other examples.

creating a climate that will make planet earth largely uninhabitable for future generations, and devastating God's creation. Jesus taught us to pray that God would forgive *us our* sins – I'm pretty sure He knew that our most serious sins are ones we do together against others. Climate change is, without doubt, and I would include the Holocaust in this, the worst of these. Can we continue to pray, "forgive us our sins", and expect God's absolution, if we don't change?

Now I know that in much of this I am compromised. Compromised because of choices that I and others have made in the past, which make it very difficult to get out of this quickly. To take just one example, our house has gas-fired central heating. We buy from a supplier who offsets the carbon emissions from this, but that isn't an ideal solution. The solution, apart from turning the heating off (what we might call the Margaret Dobson solution!), is to install electric storage heaters and buy electricity from a renewable source. But that's a significant investment, and collectively we wouldn't have the electricity capacity for everyone in the country to do it. So, I'm compromised in this and many other ways, but I'm also complicit. In other words, I make choices, such as going to a couple of conferences in the USA and visiting my sister in California while we're there this summer, which I know will only exacerbate the problem.

So the question I am asking myself from a Christian perspective is, "How do I live faithfully in times such as these?" I don't have a full set of answers, of course, partly because I don't think we have a fully worked-out 'theology for living in the end times' if, indeed, that is where we are. But I have some suggestions which I am trying to follow.

First, as Christians, we need to pray. I don't think God is sitting up there just waiting for it all to happen, abandoning us to our fate, and nor do I think this will necessarily trigger the second coming. None of this, nothing at all, takes place outside the love of God, and therefore there is hope. God is as concerned, probably more concerned for His creation than we are. I don't expect Him to intervene directly, sucking carbon dioxide out of the atmosphere like a giant vacuum cleaner. But I do think that He is already at work in those who are working on the technologies and in the politics and geopolitics that could make a difference. We need to pray to God for them, and for His mercy on us.

Second, we can of course do something individually and collectively. And one way of looking at this is that every small action we take, every bit of carbon dioxide we don't emit, buys us, buys the planet a bit more time, gives us just a little more opportunity to find solutions to mitigate and adapt. And then it might be helpful to think of it as a number of issues each of which is on a spectrum. So diet, for example, can be from red-meat eating carnivore at one end, through limiting our meat consumption, to becoming vegetarian, to becoming vegan at the other end.⁹ We can continue to drive as we do, through to reducing our mileage, through to buying an electric car and charging it with renewable electricity, through to giving up the car altogether. We can continue to fly, or fly less, or decide never to fly again. We can reduce our consumption more generally. And so on. Some of these, at the extreme end of the spectrum, would involve significant lifestyle changes, but when others in the world are having such changes forced on them, maybe there would be an element of justice to that. And we don't need to do this as individuals – perhaps it would be more effective if we sought to ratchet down our consumption together. "Where are you not going on holiday this year" might be a question over coffee. And, of course, there is the question of what can we do, perhaps what we should do as church beyond what we have already done.

So it's a question not only of how do I live faithfully in times such as these, but how do we live faithfully in times such as these?

Amen

⁹ See Willett et al. (2019). 'Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems', The Lancet, available from [www.thelancet.com](http://dx.doi.org/10.1016/S0140-6736(18)31788-4), [http://dx.doi.org/10.1016/S0140-6736\(18\)31788-4](http://dx.doi.org/10.1016/S0140-6736(18)31788-4).