

The Climate Emergency

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We need to talk about the climate emergency. In August 2021, the Intergovernmental Panel for Climate Change released its latest report. It made for stark reading. The report concludes that *human activity* is responsible for warming of 1.1°C since pre-industrial times, and the global temperature is expected to exceed 1.5°C of warming within the next 20 years. Whilst 1.5°C may not sound like much, this is an average which incorporates much *bigger* regional fluctuations in temperature. To put this into perspective, the warming of our oceans has been equivalent to exploding an atomic bomb *every second for the last 150 years*.

The report says that with 1.5°C of warming over pre-industrial times, there will be increasing heat waves, longer warm seasons, shorter cold seasons, and other extreme weather events. With 2°C warming, those heat extremes would reach *critical* thresholds. Over 200 health journals published a joint editorial warning that the climate emergency risks “catastrophic harm to health”. Only with rapid and sustained reductions in carbon emissions – reaching net zero as *soon* as possible – can these worse effects be avoided, and the climate be stabilised. We are now in a climate emergency.

Our lives are going to change – are we ready? With increased extreme weather events, there will be greater instability in food production, leading to greater prices and failures in our supply chains. There will be increases in migration and refugees, as people move from areas made uninhabitable by changes in climate. There will be greater risk of conflict as nations compete for resources. As wildfires and floods, as well as other extreme weather events, become more frequent, our lives will become less stable and more unpredictable. To avoid the worst of impacts of the climate emergency, humanity needs to radically reduce its carbon emissions, which will mean ending our dependency on fossil fuels. We will *not* be driving petrol or diesel cars in the future. Our gas boilers will need to be changed for alternative methods of heating. The aviation industry, our means of food production, and many other sectors too, will change significantly.

This decade is *critical* if greater catastrophe is to be avoided for ourselves and for our children and grandchildren. So in one way or another, our lives are going to change significantly, and we need to be prepared to face those challenges. As a community we need to start talking about the climate emergency.

In an earlier article, I argued that humans have been given the responsibility of stewardship over creation, and that as Christians we should take that responsibility seriously. In this second article I want to raise directly the question of the climate emergency and what we can do about it.

The Greenhouse Effect

The Climate Emergency is being caused by something known as the Greenhouse Effect. The Earth is warmed by the Sun. Energy radiated by the Sun is received by the Earth. Some of that solar energy is reflected back into space, and some is absorbed into the atmosphere – the *majority* is absorbed by the surface of the Earth. As the surface of the Earth warms, it also radiates energy. This *thermal* energy radiated by the Earth's surface is a longer wavelength than the solar energy from the Sun. This thermal radiation from the Earth is absorbed by the atmosphere. The atmosphere radiates this energy in all directions – some up into space, some back down to the Earth's surface. In effect, the atmosphere is *catching* the thermal energy radiated by the Earth's surface and stopping it from escaping. This process means that the Earth is *warmer* than it would have been without the atmosphere.

This Greenhouse Effect has been really important for the existence of life on this planet. Without the atmosphere, planet Earth would be much, much, cooler. So cold, in fact, that life could not survive. The fact that we have an atmosphere means that we don't lose so much heat escaping into space, and it keeps this planet at a liveable temperature. The problem is that the human activity has *destabilised* the Greenhouse Effect.

There are a number of gases in our atmosphere that create the Greenhouse Effect. The main one is water vapour. Another one is carbon dioxide, and there are others. We are releasing carbon dioxide all the time – when we breath, we take in oxygen and breathe out carbon dioxide. Having some carbon dioxide in our atmosphere has been a good thing. However, over the last two centuries we have *radically increased* the amount of carbon dioxide we are releasing by burning fossil fuels. Burning, combustion, takes in oxygen and releases water vapour and carbon

dioxide. Whenever we burn coal, gas, or oil, we are releasing more and more carbon dioxide into the atmosphere. All that *extra* carbon dioxide has increased the Greenhouse Effect, meaning that more of the thermal energy radiated by the Earth is being trapped by the atmosphere and so the planet is getting hotter.

This effect has been known for a long time. In 1856, a scientist named Eunice Newton Foote experimented by exposing different tubes of gas to sunlight and noting the effect. The warming effect was *greater* for the tubes of water vapour, and for carbon dioxide. And so she was able to draw the conclusion that, if there was substantially more carbon dioxide in the Earth's atmosphere, then the planet would be hotter. Since that time, scientists have warned *repeatedly* about the impacts of increased carbon dioxide in our atmosphere. We are now living through some of the early impacts of that warming: we are now in a climate emergency.

A warming of planet means the disruption to our climate resulting in changing weather patterns and more frequent extreme weather events. The climate emergency is seen in raging wildfires, in catastrophic floods, in storms, and in hurricanes. It is not that these extreme events never occurred before, it is that climate change is making these events *much* more frequent. And worse is to come. The melting ice caps may lead to sea levels rising, submerging coastal areas. Changes in weather patterns may disrupt harvests and food supplies. Extreme heat may make some regions of the world unliveable.

Some impacts of the climate emergency are already being felt. The extent to which worse follows will depend on how humanity reacts. Through radical reductions in emissions of carbon dioxide and methane, it is possible to avoid the most catastrophic scenarios and ensure that this planet remains liveable for future generations. But time is running out.

Climate change denial

There are some who deny that there is a climate emergency or deny that climate change is being driven by human activity. This denial is not caused by scientific debate over the evidence: a recent study found that the scientific consensus over climate change is now greater than 99%. Apparently, climate denial is most strongly associated with where you sit on the political spectrum, rather than other factors like level of education. Oddly enough, there are some Christians who are vocal in their rejection of climate science and adamant that the climate isn't changing. So let us think about those concerns for a moment.

As Christians we are committed to truth. Truth is important to us. Therefore, we will want to be *careful* to ensure that what we believe is guided by approaches aimed at truth. For example, when we are dealing with a question of science, we will give *greater credence* to the conclusions of the scientists working on that topic than someone with no relevant experience or training. Further, where a number of different scientists working on that topic reach similar conclusions, we will give *greater weight* to those conclusions as there is greater probability of them being correct. And when an international scientific committee, with hundreds of scientists drawn from all over the world, reviews *thousands* of scientific articles, consolidates their results, and draws up a report – which is then approved by agreement with representatives from 195 member countries, as is the case with IPCC report – then this is going to be strongly compelling for *us*, as people who are committed to truth. Whilst scientists, like all humans, are fallible and may make mistakes, that in itself does not change the fact that those people who have *studied* a given topic in depth are *far more likely* to have accurate conclusions about that topic.

Or, think about this another way: if we are going to disagree with a particular conclusion, we will want to have *compelling reasons* for doing so. If we have a *certain* amount of evidence for a conclusion, then we are going to want to see *much more* evidence to convince us of the opposite view. Given that the vast majority of climate scientists have concluded that the climate *is* changing and that human activity *is* the main cause, given that intergovernmental bodies like the IPCC *agree* on this conclusion, given that even the representatives of the *fossil fuel industry* accept that the climate emergency is real, just think about the level of evidence you would need to make it even *possible*, let alone probable, that climate change *isn't* happening.

However, some might say, this is all about the *human* wisdom – what about the wisdom of God? They might argue that we have the Bible, the infallible word of God, that we should put the Bible above any scientist. If the Bible says climate change won't happen, then it won't happen. And there are those who would say that the Bible does indeed say climate change won't happen. Genesis 8:22 reads, *While the earth remains, seedtime and harvest, cold and heat, summer and winter, day and night, shall not cease.* It is argued that the conclusions of climate science go against the promise God makes in this verse and so the climate emergency must be false.

But wait a minute. When, in the story of Joseph, there were seven lean years when the harvest failed, did that *contradict* the promise made in Genesis 8:22? Or when there was drought in time of Elijah, did *that* contradict this promise? Or the fact that there is currently no seedtime

or harvest in regions of the world like Antarctica or the Sahara Desert, does *that* contradict this promise?

In context, this verse is about God's future intentions following the Flood. He says he will never again strike down all living creatures. Verse 22 expands upon this same statement about God's intentions. He will not remove night and day, summer and winter, seedtime and harvest. What this verse says *nothing* about is *human* activity. There is no promise here about what humans might do through their greed and arrogance. This verse does *not* say that humans will never destabilise the climate, disrupt weather patterns, and increase the frequency of catastrophic events.

So the Bible gives us no grounds to overturn the scientific consensus that the climate emergency is happening. On the contrary, this passage hints at what humanity is at its worst. Verse 21 says, *the intention of man's heart is evil from his youth*. The Bible repeats throughout its pages the dangers of greed and the folly of pursuing riches. The fact that overconsumption by humanity has driven this world to the brink of climate catastrophe would actually seem *in keeping* with the Bible's warnings about vices such as greed.

Signs of the times

Another common reaction to the climate emergency by Christians is to interpret it as one of the signs of the times, as we call them – one of the signs of Christ's coming – and so to be *glad* in the face of the climate emergency because it heralds the soon return of Christ. Like all Christians, I rejoice at the prospect of Christ's return – this world sorely needs the Prince of Peace – but I am *cautious* about this interpretation.

Firstly, I think we should always be nuanced in the way we respond to the suffering of our fellow human beings. Whether we are thinking about natural disasters, or wars, or persecutions, or any of the other commonly cited signs of the times, we should be moved with *compassion* on those who are suffering. We may well rejoice if we see these signs as hastening the day, yet such rejoicing will seem *glib* and *insensitive* if it is not nuanced by the love of Christ. After all, we are not in hopeful expectation of *natural disasters*, but of the joy and peace and justice and love that comes with the Kingdom. This applies as much to the suffering caused by the climate emergency as to anything else.

Secondly, it is not obvious that the features of the climate emergency are precursors to the imminent return of Christ. In the Olivet prophecy, Jesus does refer to *famines ... in various places* (Matt 24:7), which would be consistent with some aspects of the climate emergency. However, he says these are *but the beginnings of the birth pains* (Matt 24:8), so it not clear that such signs herald the *immediate* return of Christ. If you follow the timeline described in the Olivet prophecy, the gospel first needs to be preached to all the world, and that's on us.

Thirdly, I sometimes worry that our attitude to the signs of the times is *misaligned* with that of God. 2 Peter 3:9 says, *The Lord is not slow to fulfill his promise as some count slowness, but is patient toward you, not wishing that any should perish, but that all should reach repentance.* So rather than looking for signs that hasten Christ's return, perhaps we should acquiesce to God's timescale. And if the Lord remains away then we should rejoice that mercy has been shown on those who might yet respond to the gospel. Surely, we, like God, are not wishing for anyone to perish if they can be restored to the image of God for which they were created.

Fourthly, the concept of watching for the signs of times suggests that the watching we should be doing is monitoring *world events* rather than monitoring *the state of our hearts* before God. In the Parable of Ten Virgins (Matt 25:1-13), all ten were asleep when the bridegroom came. None of them stayed awake and watched for his coming. The difference between them is that five had oil in their lamps and five did not – five were *ready* and five were *not*. The challenge of the return of Christ is not whether we can *predict* it, but whether we are *ready*, whether our hearts are at one with God or not. It will do me *no good* if I can predict the day the Lord will return, if my heart is filled with bitterness and envy and greed and pride, and I am not welcomed by my Lord into his Kingdom. The return of Christ might be delayed for another hundred years, if God so wishes it, but that doesn't change what I should be doing in seeking to be ready.

But lastly, and this is the point I want to emphasize, even if the climate emergency *is* one of the signs of the times, that doesn't tell us how we should *feel* about it or how we should *respond*. Being a sign of the times does not make something *good* or *acceptable* or even inevitable. For instance, Jesus warns in the Olivet prophecy that *the love of many will grow cold* (Matt 24:12), but we do not *resign* ourselves to the inevitability that some of our brothers and sisters will lose their love for Christ. But we strive to nurture and cherish the spiritual lives of *all* our brothers and sisters. Nor should we *resign* ourselves to the *inevitability* of the climate emergency and its impacts.

What can we do?

In my previous article, I explored the reasons why we should care about the environment, care about creation. We should care about creation because God cares about creation. We should care about creation because it is a gift from our heavenly Father. We should care about creation because we have been given the role of stewards over creation. We should care about creation because it brings praise and glory to our LORD God. We should care about creation out of love for our fellow humans beings who will be impacted by the developing climate emergency. But what should we *do* about it? What *can* we do about it?

Some will urge that we should pray for the Kingdom to come, pray for this world to be restored to its creation potential, when the LORD God undoes all the corruption wrought upon this Earth by human greed and pride. And, of course, we should. We should pray for the Kingdom to come, as Jesus taught us. Our eyes should be *fixed* upon that vision of a world where the will of God is done upon the Earth, as it is in heaven. But that is not *all* we should do. The climate emergency is happening now – *right now* – do we have an *excuse* for inaction? If people are hurting *now*, can we just walk on by? If this sacred ground, which the LORD God made and blessed, is being desecrated, can we just stand by and do *nothing*?

I appreciate that many Christadelphians will feel reluctant to get involved in a big, global issue, like the climate emergency, because its solutions seem to require governmental action, and Christadelphians, historically, have avoided political action. Leaving aside political actions, there are things that we *can do* that will make a real difference to the climate emergency:

1. invest wisely,
2. switch energy provider,
3. change your diet,
4. change modes of transport,
5. consume less, and
6. offset carbon emissions.

Invest wisely. Do you have a bank account? Do you contribute to a pension scheme? Do you have insurance? If the answer to any of those questions is yes, then you are part of a global financial system. Banks take the money we put on deposit and invest in different industries, and through those investments our savings, our pension fund, are supporting those industries. Do we

know how our money is being invested? Would we be happy with the ways in which our money is being used?

Most of us are not financial experts – I include myself in that – and it would not be appropriate to give financial advice in an article like this. In any case, most of us are never going to be in position to tailor our investment portfolio or anything like that. However, we still have choices, such as which bank we use. Does our bank have an ethical investment policy? If not, maybe switch to one that does.

Switch energy provider. Renewable energy is not a new concept. Humans have been using wind power and waterpower for hundreds of years. The technology is improving all the time to the point that it is cheaper to produce electricity by wind or solar than by burning fossil fuels. We can help *support* these new technologies by switching our energy supplier to one that offers electricity from renewable sources. I can speak for the UK and say that it is very simple to change your energy supplier – you can do it online, you could do it today, and you'd be making a difference to climate change.

Change your diet. One of the big contributors to the emission of carbon dioxide is the meat industry. Destroying the rainforest to graze cattle has a big negative impact. So one way we can help reduce carbon emissions is to eat less meat, and switch to other forms of protein that require a lot less carbon emissions.

Some will say that Jesus and the earliest Christians were not vegetarians – they ate fish, they ate the Passover lamb – and this is true. However, the population of the world at the time of Jesus was somewhere between 150 and 330 million. The global population today is 7.6 *billion* and growing. Humanity needs to live more sustainably. In any case, in Bible times people ate meat *much* less frequently than we do today; certainly not every meal or every day even. Reducing the amount of meat we eat is an effective way to reduce our carbon emissions.

Change modes of transport. Another big contributor to carbon emissions is the way we travel. A lot of the forms of transport we use depend on burning fossil fuels, whether petrol or diesel cars, diesel trains, or aeroplanes. Some forms of transport are worse than others, but we need to use them a lot less and ultimately any form of transport that depends on fossil fuels will have to go. Governments and industry are going to have to transition away from fossil fuels and adopt green technologies. Petrol and diesel cars will be phased out; trains will be electrified; air travel

will have to change. These are big changes, and not things that we can do individually. Many of us do not have the spare cash to just buy a new car, for example. However, we do have choices.

Walking or cycling do not require fossil fuels and are really good for our health. Public transport is usually much better for the environment than driving. And whilst I appreciate the desire to travel overseas, we need to think seriously about whether air travel, in its current form, is sustainable.

Consume less. Another big contributor to carbon emissions is driven by consumption. We, in certain parts of world, buy lots of stuff, which we don't need and won't bring us happiness. This overconsumption drives carbon emissions. It is also something that our Lord warns against. So think seriously about what you buy. Do we use things until they wear out and only then buy something new? Or are we fuelling unnecessary carbon emissions by buying clothes, gadgets, and other material things that we don't need? And instead of hoarding material goods, could we give away more and so prevent the unnecessary production of new things. Reducing consumption, and thus reducing production, is *key* to reducing carbon emissions.

Offset carbon emissions. It is likely that we are not going to be able to eliminate all our carbon emissions in the short term. There are now many organisations that offer opportunities for carbon offsetting. These organisations fund initiatives that reduce carbon emissions, such as planting trees. By estimating our current carbon emissions, and paying a small amount, we can offset our emissions through supporting such initiatives.

Carbon offsetting is not the solution to the climate emergency. It won't change the fact that we will need to eliminate the use of fossil fuels, that we will need to become carbon neutral, and adopt lifestyles that are more sustainable and in harmony with our environment. However, such carbon offsetting can be *part* of the solution, in short term, whilst we make this transition towards net zero carbon emissions.

Compelled to act

The climate emergency is upon us. We are already seeing the effects of disasters across the globe, and it is being driven by human activity. We, as Christians, above all others should be *shocked* by the desecration of God's holy creation and *compelled* by the imperative of moral responsibility to change our ways, to reduce carbon emissions, and to seek for a way to live in harmony with God's creation until such time as our Lord returns. If we want to avert disaster,

and the misery that it will bring, then we must start changing now. This is not a casual request, this is not a nice-to-have, this is not some appendix to your faith and practice. This is part of what it means to *be* a Christian. Our faith, and our love, compel us to act.

So let's get going. Let's start the conversation. Let's start making changes to our lives that will avert the catastrophe that is to come. So help us God.

Resources

The Intergovernmental Panel on Climate Change – <https://www.ipcc.ch/>

Why should Christians care for creation? (blog post) – <https://biologos.org/common-questions/why-should-christians-care-for-creation>

A Christian reaction to climate change (blog post) – <https://searchforhope.org/the-bible-today/a-christian-reaction-to-climate-change/>

Christianity and Climate Change (video series) – <https://www.tearfund.org/campaigns/christianity-and-climate-change-film-series>

Climate Justice (charity campaign) – <https://www.christianaid.org.uk/give/share-climate-justice-appeal>

Go Green (charity campaign) – <https://cafod.org.uk/Fundraise/Go-Green>

Christian Climate Action (campaign group) – <https://christianclimateaction.org/>

Operation Noah (charity) – <https://operationnoah.org/>

Climate Coalition (list of faith groups) – <https://www.theclimatecoalition.org/faith-members>

Climate Change, a Challenge for the Christian? by Laurence Kimpton (booklet) – <https://www.endeavourmagazine.org/publications/>