

Epiphany 3 2021

I wonder how many of you watched David Attenborough's latest series *Perfect Planet*. As always the photography is stunning, and the series takes us on an amazing journey, from the slopes of fiery Hawaiian volcanoes to the frozen wastes of Ellesmere Island. We see hundreds of thousands of flamingos gathering to breed in a lake in Tanzania, Arctic wolves hunting by moonlight, Eden's whales fishing together in the Gulf of Thailand. And through the series Attenborough explains just why the earth is truly a perfect planet. "Oceans, sunlight, weather and volcanoes - together these powerful yet fragile forces allow life to flourish in astonishing diversity", he says. "Our planet is one in a billion, a world teeming with life." If you haven't seen it, do watch it on iPlayer.

Over 4000 exoplanets have now been discovered¹, mainly by the Kepler space telescope. These are planets orbiting other stars in our galaxy. Many of these are gas giants, like Jupiter, or orbit very close to their suns, partly because such planets are easier to detect. We don't really know how many planets might be capable of sustaining life, but there was considerable excitement a couple of years ago when it was discovered that a planet orbiting a star about 110 light-years away has water vapour in its atmosphere, the first time that the presence of water had been confirmed on another planet in the habitable zone. Sometimes called the Goldilocks zone, this is the range of orbits around a star that are just right, neither too hot nor too cold, where water could exist as a liquid, and therefore where life might have evolved.

Earth may or may not be one in billion, but it is truly amazing! As well as being in a suitable orbit, it has other features that, taken together, make it a Goldilocks planet for life. Firstly it orbits the right kind of sun, a medium-sized, long-lived star. A large star would burn up too quickly to give enough time for life to evolve, a small one might continually blast its nearby planets with bursts of radiation. The earth's molten core creates a magnetic field that shields us from solar wind, charged particles that would otherwise strip away the ozone layer that protects us from harmful ultra-violet radiation.

In the TV series David Attenborough also explains the importance of geological activity, and particularly volcanoes. A planet with a hard crust and no molten core would be a dead world. Without volcanoes, most of Earth's water would have remained locked in the crust and mantle. Early volcanic activity produced much of the earth's land masses, but it also created an atmosphere containing water vapour and carbon dioxide (among other gases). As the earth cooled, the water vapour condensed and fell as rain, forming the first oceans. In those oceans life appeared, eventually photosynthesizing bacteria, then plants, that take CO₂ out of the atmosphere and produce the oxygen that allowed animals to evolve.

Attenborough describes how 1500 active volcanoes still produce the minerals that nourish the land, billions of tonnes in a single ash cloud. The CO₂ in the atmosphere keeps the climate stable and warm. Unfortunately human activity now produces one hundred times

more CO₂ than all the earth's volcanoes put together. "Humanity", he says, "has become a super-volcano."

The final episode of the series deals with human impact. "... now a new dominant force is changing the face of Earth: humans", Attenborough says. "To preserve our perfect planet we must ensure we become a force for good."

Honestly, I think that you would have to have been living on one of those exoplanets for the last 20 years to be ignorant of the climate crisis, or of the fact that the earth's ecosystems, of which we are a part and on which we depend, are in deep trouble. During the Covid pandemic climate and ecological issues have slipped out of the headlines, but you still don't have to look very hard to learn about global heating, mass extinction of species, rising sea levels, the sea ice melting, acidification of the oceans destroying the coral reefs. We can watch the forests burning, in the Amazon and in Siberia, as far north as the Arctic circle, and the devastating effects of more and more frequent extreme weather events, both abroad and at home.

The effects on human life is already disastrous for many people, and will only get worse if things don't change. A UN report² published in 2019 warned that poor people will bear the brunt of climate change and that 120 million more people could be pushed into poverty by 2030, arguing this could potentially undo the last 50 years of progress in development. Philip Alston, the author of that report says:

*Estimates are that the total damage done by climate change could fall 75 per cent on developing countries. Within these countries, the poor are much more vulnerable in the sense that they don't have the same protections. They can't afford to live in more secure locations. They don't use building materials that have a chance of withstanding extreme weather. They don't have the same forms of assistance, of insurance, of government support, and so on.*³

It is, in other words, an emergency. As Greta Thunberg has been telling us. As the children of the Fridays for Future movement have been saying. As Extinction Rebellion has been shoving down our throats, whether we like it (or them) or not.

For Christians, care for creation should be in our DNA. We read in Genesis that God rejoiced in the Creation that we are part of. We believe that he gave us stewardship of the earth, to care for it. We believe that through the prophets we are called to ways of justice and righteousness, especially to care for the poorest and most vulnerable. We believe that through the Incarnation Jesus became part of our world and shared our life, ushering in God's kingdom of peace and justice.

Our readings today speak of the wonderful abundance of God. As the response to our Psalm we said "How abundant is your goodness, O Lord." At Cana when Jesus gives wine for the

feast, it isn't a half a dozen bottles of supermarket plonk, it is over 100 gallons of the best stuff! God has given us a perfect planet, teeming with life! What abundance!

Another strong theme in our readings is that of living in accordance with the will of God. In Psalm 128 we read:

*Blessed are all those who fear the Lord,
and walk in his ways.
You shall eat the fruit of the toil of your hands;
it shall go well with you, and happy shall you be.*

It's a theme that appears again and again in the Psalms. Presumably by "walking in the way of the Lord" the psalmist meant obeying the commandments of the Torah: loving God, loving your neighbour, caring for the poor, caring for the land.

In the Gospel reading, Mary says to the servants "Do whatever he tells you." What does Jesus tell us to do? He says to live like the birds and the lilies, content with having enough (Matthew 6:25-34). He tell us to give away our wealth (Mark 10:21). He tells us not to accumulate stuff (Luke 12:16-21).

Of course we have to do all we can as individuals: recycle, reuse and repair; drive less; fly only if we have to; turn down the heating; eat less meat ... I won't go on because our Eco Church Group give us guidance and suggestions week on week, and now you can read them on the church Facebook page and on the website. We have to walk the climate walk, as individuals and as a church family.

However the efforts of individuals is not enough. There must be concerted, focussed, international political action. Governments must stop subsidising the oil industry to the tune of hundreds of billions of dollars annually. They must have clear and detailed plans to reach net zero emissions, preferably before 2050. They must have a clear plan, and commit funding, to help developing nations achieve this target. Critically they must develop green Covid recovery plans, investing in sustainable technologies to create jobs.

2021 has to be the year it happens. We have a unique convergence of opportunity. The UN COP26 summit will be held in Glasgow in November. We have a new President of the United States, who has already re-joined the Paris Agreement, and who has said he is committed to a zero-emissions target. It has to be make or break.

We are fortunate enough to live in a democracy. Politicians of every stripe want to get elected, so they listen to their constituents. Although some opinion polls show that a majority of people in this country are 'concerned' about climate change, at the last election polls showed that only 20 – 30% of voters said that this issue mattered most to them. We've got to get this figure raised. We are fortunate to have an MP with a good record on environmental issues: let her know that you think it's important. Her party has produced a

policy document *Green Recovery*⁴. Download it, read it, and let her know what you think of it. Is there anything you think should be changed, or added? Just the fact that you bothered to read it says something. Write to ministers. Talk to others (that's why God created Zoom). Tell them they can do something. Support organisations such as Greenpeace, which may have a voice. As science journalist Adam Vaughan wrote in a recent article: "How much pressure citizens put on their governments will influence the outcome of COP26, and therefore how dangerously hot the world will get this century."⁵ We've got nine months to ramp up the pressure.

We are members of the Church of England, an organisation with influence probably way beyond its membership numbers (and certainly its active, worshipping membership numbers!). Our bishop sits in the House of Lords. When the Archbishop of Canterbury gets vaccinated it's on the front pages. I would like to see the Church of England make this their main priority this year, and be loud about it. In 1990 the Anglican Communion added a fifth Mark of Mission: *To strive to safeguard the integrity of creation and sustain and renew the life of the earth*. Well, if you stumbled upon the C of E website you wouldn't know. Yesterday I searched for some indication of the Church's response to the climate crisis. It may be there somewhere if you know where to look, but it's certainly not obvious, and it needs to be.

And as a parish church we have a voice in our community and our city. Rev Carol has asked for ideas about our church's future and mission, and I would like us to take a very visible lead on this locally. Our Eco Church Group has laid a wonderful foundation; let's build on that.

We can do so much if we work together, with hope and courage. In the wonderful words of Amanda Gorman:

*The new dawn blooms as we free it.
For there is always light,
if only we're brave enough to see it.
If only we're brave enough to be it.*⁶

1. J. Schneider (2021) *Interactive Extra-solar Planets Catalog* [Online]. Available at <http://exoplanet.eu/catalog/> (Accessed 23/01/2021).

2. Philip Alston (2019) *Climate Change and Poverty*. UN Human Rights Council [Online]. Available at <https://digitallibrary.un.org/record/3810720?ln=en> (Accessed 23/01/2021)

3. Chatham House (2019) Philip Alston on Inequality and Climate Change [Online]. Available at https://www.chathamhouse.org/2019/09/philip-alston-inequality-and-climate-change?gclid=Cj0KCCQIAjKqABhDLARIsABbJrGkCAisayfDhhHLirR-1krdlvwquqs97z3jDDahrKoEGkCd66-Usgw8aAlbGELw_wcB (Accessed 21/01/2021)

4. The Labour Party (2020) *Green Recovery* [Online]. Available at <https://labour.org.uk/wp-content/uploads/2020/11/GER-10.11docx.pdf> (Accessed 20/01/2021).

5. Adam Vaughan (2021) *A big year for climate action*. *New Scientist* 2 January 2021, pp. 16-17.

6. Poet Amanda Gorman reads 'The Hill We Climb' (2021) YouTube video, added by ABC News [Online]. Available at <https://www.youtube.com/watch?v=Wz4YuEvJ3y4I> (Accessed 23/01/2021).