

The Future We Choose ISBN 978-1-83877-082-2

Continuing our summary of actions required to bring about a good future for our planet, this month we look at 8: **Use Technology Responsibly**. Previous summaries are available on the church website.

Technology in general and Artificial Intelligence (AI) in particular are powerful tools that could be of great assistance in reducing our carbon footprint. An example of this was shown in Google's Data Centres in 2016. For 10 years the engineers had been optimising their data systems, and it was assumed that any further improvements on their energy usage would be marginal. Then AI was set loose on the problem, and the energy demand for cooling was reduced by 40%. If we are to tackle Climate Change then we will need to use technology wisely and AI will need to be employed. However, any technology is neither intrinsically bad nor good; it all depends on how it is used. AI could be used to hoard scarce resources for the use of a few rich and powerful people. Governments need to agree on guidelines for the use of technologies. The authors ask us to "Find out if your government, your local community, or the company that you are working for is investing in AI, and what they are using it for."

Biodiversity and Climate Change

There is a very interesting and wide ranging article in the 10 April 2021 New Scientist by their biology and environment reporter Michael le Page entitled *How Climate Change Hits Nature*. Here are some of the main points that I took from that article:

- **Saving biodiversity and fighting climate change have to go together**
Humanity's use of land is crucial to both biodiversity and climate change. Humans have altered three-quarters of all land and two-thirds of the oceans, according to a major 2019 report on biodiversity. More than a third of land and three-quarters of freshwater resources are devoted to crops or livestock. Studies suggest that about a third of terrestrial species could be lost altogether by 2070. "That could be cut in half by following the Paris Agreement and keeping temperature below an increase of about 1.5°C." Some attempts to reduce climate change, like growing **biofuels, greatly harm biodiversity** as they increase the area of land farmed (and hence also reduce the carbon sink that is in virgin forest.) Growing use of biodiesel is responsible for 90% of the increased demand for vegetable oil since 2015, says Searchinger. In Europe, more than half of imported palm oil ends up powering cars, driving the destruction of wildlife and carbon-rich forests in South-East Asia for palm oil plantations. One consequence is that the separate UN conventions on biodiversity and climate change should be merged, says Eric Dinerstein of the environmental organisation RESOLVE in Washington DC.
- **It also makes economic sense to tackle biodiversity and fight climate**
The Great Barrier Reef is at great risk from global warming, threatening the Aus\$ 6 Billion Dollar travel industry dependent upon it. Preserving biodiversity isn't just a fringe benefit of protecting carbon-storing trees, but is important to maximise carbon storage. In tropical forests, the largest trees typically have big seeds that are dispersed by animals, says Dinerstein – and they are the ones that are most valuable to loggers. "If we hunt them out, those massive, large-seeded trees are replaced with those with smaller seeds that don't grow as tall, don't grow as large and sequester much less carbon." At the same time, we need to slow and eventually halt the clearing of land for farms. Encouraging people to **eat less meat** would help enormously. If everyone shifted to a

plant-based diet, we would only need a quarter of the farmland used now, while vastly reducing the greenhouse gas emissions associated with producing food.

- **The future is uncertain**

There are many things that make planning for the future difficult. One of the biggest is that people fleeing conflict or natural disasters dramatically affect biodiversity.

- **There is considerable hope, but there also needs to be massive and speedy action**

There is little that is inevitable about what happens next. We might not be able to save all the species under threat, but we can save an awful lot of them. "We could cut the number of extinctions in half," says John Wiens at the University of Arizona. "I think that's the biggest cause for optimism." But our chances are better if we think more smartly about the links between biodiversity loss and climate change, and tackle both of these issues together. Done right, a rescue plan for nature can be part of a plan for saving humanity from the worst of climate change – and vice versa.

GM Food New Scientist 3 April 2021

A low-intensity organic farm might have more wildlife on it, but it produces less food, which means more farmland is needed elsewhere in the world, Emma Kovak of the Breakthrough Institute in California says. Per unit of food, high-intensity farming has a much lower impact. Kovak has shown that if the European Union had embraced higher-yielding, genetically-engineered crops, it would have led to a substantial reduction in greenhouse gas emissions via less land use. Perhaps those who are concerned for Creation Care should reassess our resistance to GM food production?