



Ian Christie

Ian Christie is a fellow at the Centre for **Environment and** Sustainability, University of Surrey. The views expressed in this article are entirely personal. This is the unabridged version of the article that was printed in the Autumn 2018 edition.

The war: A progress report

How is the war proceeding? Here is a report.

The war has been underway for millennia. It has been intensifying worldwide in the past 70 years. There are signs that we may be entering a decisive phase of the war.

The war has produced uncountable casualties over the centuries. However, we can give some reasonably precise recent estimates from particular fronts in the war. For example, on average, vertebrate species population abundance declined by 58 per cent worldwide between 1970 and 2012; and if current trends continue to 2020 then the monitored vertebrate populations may decline by an average of 67 per cent against 1970 levels. This contributes to a widely discussed consequence of the war in its recent intensified phase, namely the prospect of a mass extinction process, the sixth such in the Earth's history. 'It is believed that the current rate of extinction overall is between one hundred and one thousand times higher than it was originally, and all due to human activity.'2

In the UK, a long-established front in the war, casualties have grown significantly since the 1940s. Similar results are reported from the USA and across Europe. A new UK analysis is worth citing at length, as it indicates the scale of the war in terms of casualties and weapons deployed even in a relatively small country. "The State of Nature" 2016 report describes Britain as being "among the most nature-depleted countries in the world". The oncefamiliar hedgehog is almost gone, its population

down more than 90% since the 1950s. The total wild bird population of the UK has fallen by 44 million since 1970. The ranges of our wild orchids on average halved in the same period. Butterflies, moths and beetle populations all show alarming evidence of long-term decline. There is abundant evidence from scientific studies that industrial farming systems and, in particular, the growing reliance of farmers on a barrage of pesticides, has played a significant role in driving these declines. Conventional, industrial farming sees the repeated application of multiple pesticides to our landscape on a breathtaking scale. About 500 different "active ingredients" (i.e. poisons) are licensed for use in the EU ... In short, our farmland is being subjected to a massive barrage of poisons, leading to contamination of soils, hedgerows, rivers and ponds. All farmland wildlife is being chronically exposed to a complex mixture of pesticides, the effects of which are far beyond the capacity of scientists to predict or understand.'3

The war has enabled us to establish a vast population of slave animals for consumption, at the expense of wild creatures. Approximately 70 billion farm animals are reared for food per annum, and our success in expanding industrialised agriculture has contributed significantly to the war effort, accounting for two-thirds of the casualties in wildlife.⁴

The war has been remarkably successful so far. However, there are worrying signs that our victorious progress could be at risk, thanks to unintended collateral damage. Recent analysis

1

NOTES

- 1. WWF, Living Planet Report (Gland: WWF, 2016).
- 2. See EO Wilson, Half-Earth: Our Planet's Fight for Life (New York: WW Norton, 2015).
- 3. See D Goulson in C Packham et al., A People's Manifesto for Wildlife, www. chrispackham. co.uk/wp-content/uploads/A-Peoples-Manifesto-for-Wildlife-expanded. pdf (2018), p. 71.
- 4. P Lymbery, *Dead Zone: Where the Wild Things Were* (London: Bloomsbury, 2017).
- 5. J Rockstrom & M Klum, *Big World, Small Planet* (Stockholm: Max Strom Publishing, 2015); W Steffen et al., 'Planetary Boundaries: Guiding human development on a changing planet', *Science* 347.6223 (2015); WWF, *Living Planet Report*.
- 6. J McNeill & P Engelke, *The Great Acceleration* (Cambridge MA: Belknap Press, 2014).
- 7. See S Lewis & M Maslin, *The Human Planet* (London: Pelican Books, 2018).
- 8. See Lymbery, Dead Zone; WWF, Living Planet Report; Wilson, Half-Earth; G Monbiot, Feral: Rewilding the Land, Sea and Human Life (London: Allen Lane, 2013).
- 9. Steffen et al., 'Planetary Boundaries'.
- 10. I Gough, *Heat, Greed and Human Need* (Cheltenham: Edward Elgar, 2017).
- 11. S Pinker, Enlightenment Now, (London: Allen Lane, 2017).

of human impact on ecological systems such as the climate regime, the oceans and the nitrogen cycle indicate that dangerous destabilisation is underway. In short, our success in massively increasing the scale and intensity of the war could undermine our prospects for long-term victory and, indeed, lead to defeat in spite of all our achievements in overwhelming enemy territories and wiping out their populations. It may be that nature will stage previously unanticipated counter-offensives in the form of sea-level rise, mega-storms, mega-droughts and animal-generated pandemics. Accordingly, our efforts need to be supplemented by new measures to shield civilisation from an increasingly desperate and dangerous enemy.

The 'progress report' above is deliberately provocative, while being grounded in the best available estimates of human impact on the Earth. In this essay, I will argue that while there is no single coordinated and planned 'war on nature', there is good reason to see many of humanity's impacts on the Earth as acts of violence and self-harm, of potentially catastrophic effect, and as assaults on people now and in the future, as well as on the non-human world. Next, I review the various ideological positions emerging in the light of our growing awareness of the onset of the Anthropocene, an age in which human impacts on the Earth are shifting ecologies into new and unstable states, and I relate these positions to Christian ideas and allegiances. In light of this, action to sustain the natural world takes on the character not only of economic and political reform and innovative policy implementation, but also of radical rethinking of ethics and the values involved in our relationship with the morethan-human world and the future of the Earth. I will go on to make the case that this process of rethinking can be seen as a worldwide multilevel effort at reconciliation, taking place in the face of determined and often violent resistance. I conclude with a review of ways ahead and examples of exemplary statements and processes of reconciliation – peacemaking with the Earth and each other – in which Christians are playing, or should be playing, a key role.

Ecological crisis and violence

There is a global consensus in the research communities on ecology and human impacts on the Earth that our thousands of years of development – transformation of the Earth for expected human benefit – have reached a critical threshold. Industrialised development over the past two and a half centuries, and globalisation of trade over the past half-millennium, have caused a transformation of the ecological systems on which humanity depends. In particular, the past 70 years have seen what has been described as 'the Great Acceleration' in human impacts on ecosystems, species, biogeochemical processes and resources.⁶

Taken together, these changes, it is widely claimed, amount to the onset of a new planetary era, marking the arrival of human beings as the main generators of change in Earth systems. This (contested) new era is termed the Anthropocene. There is great debate over when the new era should be dated from and what defines it, but that something momentous is going on that is captured by the Anthropocene idea is less contested.⁷

The changes include massive loss of biodiversity – genetic diversity, species, animal populations and habitats.8 They encompass large-scale disruption to planetary cycles and resources, breaching the 'planetary boundaries' of the conditions within which civilisation has evolved since the end of the Ice Age.9 Current evidence of very long-term climate disruption, caused beyond all reasonable doubt by emissions of carbon dioxide and other greenhouse gases from human activities, points to further upheaval in ecosystems. Climate change is a 'threat multiplier', making loss of biodiversity worse in many cases, and increasing risks of 'de-development' as global heating and extreme weather damage agriculture, health and so on. The risks from climate change are by now very high, threatening serious disruption to human societies and economies by the end of this century, and the consequent challenges to politics, policymaking and economic and technological innovation are huge.¹⁰ We are so far a long way from achieving the cuts in greenhouse emissions needed to keep the Earth within what is supposed to be the tolerable average temperature increase of 1.5 to 2 degrees centigrade by the second half of this century.

In what sense does all this amount to a condition of 'war' as well as a common predicament? We in the rich world do not care to speak in such terms of our effects on 'the environment' (a distancing way to describe the web of creation, the ecosystems in which we are embedded). Waging war on the Earth and its creatures? What way is that to speak of development, progress and growth? There is, after all, a powerful story to be told, as Pinker has recently given us, about undeniable gains in human welfare in the aggregate and in many particular places over the past two or three generations as a result of the Great Acceleration in production, extraction and consumption.¹¹ However, even Pinker a determined advocate of turbo-charged development, has to admit, in his chapter on climate change, that global heating and its consequences could be the crisis that brings the story of Enlightenment humanism and technology propelled progress to a halt. Pinker does not face up to the many disturbing features of the Great Acceleration and previous centuries of development, all of which lend weight to the idea, by now widely expressed in the environmentalist and conservation movements, that a war is underway against the natural world, a war that can only in the end, and, indeed, well before that, harm us.

In what sense are we engaged in a war, an immense process of violent exploitation and extraction? There is no central command, nor a coherent alliance, nor a declared enemy. But the ecological crises of our time are the scene of violence, collateral damage, epic loss of life, undermining of security and order, forced migrations, expulsions of communities, and a debasement of human life and erosion of hope. Taken together, these tell us that a massive decentralised and asymmetric war is taking place in the name of 'development as usual'.

Some of the evidence is noted in the 'progress report' at the start of this essay. But there is much more. A recent march in London led by the naturalist and TV presenter Chris Packham focused on the 'war on wildlife' in the UK as a way to dramatise the enormous loss of biodiversity in recent decades.¹² The loss of animal populations worldwide since the 70s is estimated at over 50 per cent, much of it resulting from poaching and overharvesting linked to threats of and use of violence.¹³ There is large-scale appropriation of land involving assaults on local communities in many countries in the name of securing resources; there is a global economy of 'expulsions' for the benefit of extractive interests;¹⁴ and there is a long history of conversion of intrinsically valuable ecosystems into expendable sources of 'cheap' commodities. There is systematic violence worldwide against defenders of wildlife, protected areas and indigenous communities, as documented in the harrowing series of articles on 'The Defenders' in the Guardian.15

There is the violence that is being stored up and carefully ignored by politicians who are determined not to act on the evidence of ecological disruption, in order to preserve fossil-fuelled development as usual, and to safeguard the financial and political interests who support them. President Trump, the US Republican Party and their allies in US fossil fuel industries are notorious deniers of the evidence of climate disruption, and it is now undeniable that there has been a systematic project in US politics on the Right for decades to delay and deny the need for action on climate change.¹⁶ This amounts to a cynical disregard for evidence, truth and the implications of inaction for future generations, let alone the citizens worldwide already suffering the effects of global heating. This is nihilistic fatalism and boundless short-term self-interest, as indicated by a new US government analysis that assumes the inevitability of a catastrophic 7 degrees centigrade global temperature rise by 2100.17

For all the undeniable and welcome progress in human welfare over centuries and especially since 1945, we are at a point where it risks being undermined, reversed or even erased by the damaging side-effects of the means by which we develop – above all, the massive use of fossil fuels. The attempt to continue as we have done, with ever more appropriation of land and resources from people and animals, and ever more fossil fuel

use, threatens to be calamitous, especially for poor people and countries, who, of course, have done least to cause problems such as global heating. The attempt to deny the need for any change of course, as perpetrated by the current US federal government under President Trump, amounts to indifference to, or complicity with, violence and suffering that amount to an assault on future people, even to 'ecocide'. Such is the argument that has been advanced in the growing number of legal actions brought in the USA and elsewhere against fossil fuel companies such as Exxon. We can expect much more of this legal conflict in coming years as the violence outlined above proceeds.

In the next section I review the positions taken up by diverse groups in relation to this diagnosis of 'war against the Earth'. As in any war, the material conflict is accompanied by a battle of ideas.

Ecological crisis and the war of ideas

The more urgent the ecological crisis of our time becomes, the more fragmented and polarised and inadequate the political response – and the more attention is focused on the anthropological, spiritual, ethical and theological dimensions of the challenges we collectively face. The debate over whether we are in the Anthropocene and, if so, what it means, has begun).18 It raises questions not only about the nature and implications of human impacts on the Earth, but about the nature of the humans making the impacts. If we are undermining the creation, is it because of 'human nature'? Or is it the result of a specific kind of human society – industrial civilisation? Or is it more narrowly the consequence of capitalism? The diagnosis makes a major difference to the answers given, although there may well be much common ground between them.

The debate also has strong theological undertones: the positions being staked out can be seen to derive in significant ways from old religious concepts and values, modified and warped by modern interests and ideological commitments. ¹⁹ As a result, churches are divided on the diagnosis and the actions to be taken, and we see much evidence of biblical interpretation being influenced by, indeed determined by, secular values about what matters in terms of cultural identity and economic self-interest.

We can distinguish five broad positions, in which secular and Christian actors are entangled. Common to all of them is the recognition of the close linkage between development – the transformation of the Earth for human benefit, or for the benefit at least of some humans – and violence, between people and between people and the non-human world.

1. Indifference and denial – no inherent value is perceived in the natural world beyond what it can provide as benefit for immediate human need, profit and satisfaction. The future of the planet can take care of itself, either because it is assumed that

- 12. Packham et al., *A People's Manifesto*.
- 13. WWF, Living Planet.
- 14. S Sassen, Expulsions
 (Cambrjdge, MA:
 Belknap, 2013); R
 Patel & JW Moore, A
 History of the World in
 Seven Cheap Things:
 A Guide to Capitalism,
 Nature, and the
 Future of the Planet
 (London: Verso,
 2018).
- 15. See www. theguardian.com/ environment/series/ the-defenders
- 16. N Oreskes & W Conway, Merchants of Doubt (London: Bloomsbury, 2011); J Mayer, Dark Money (New York: Random House, 2016).
- 17. See www. washingtonpost. com/national/healthscience/trumpadministration-seesa-7-degree-rise-inglobal-temperaturesby-2100/ 2018/09/27/ b9c6fada -bb45-11e8-bdc0-90f81cc58c5d storv.html? noredirect =on&utm term=. a72803aeab5f
- 18. S Lewis & M Maslin, The Human Planet (London: Pelican Books, 2018); C Deane-Drummond, S Bergmann& M Vogt (eds.), Religion in the Anthropocene (Eugene: Cascade Books, 2017).
- 19. On the links between domination of nature in the modern world and the forsaking of Franciscan Christian tradition for a human-centric view of creation and 'dominion' as granted to humans by God in Genesis see L White, 'The historical roots of

our ecological crisis', *Science* 155.3767 (1967), pp. 1203–7

20. M Roberts, 'Evangelicals and Climate Change', in D Gerten & S Bergmann (eds), Religion in Environmental and Climate Change (London: Bloomsbury, 2016).

21. E.g. C Thomas, Inheritors of the Earth: How Nature is Thriving in an Age of Extinction (London: Allen Lane, 2017).

22. Available at http://w2.vatican.va

23. T Jackson, Prosperity without Growth (Abingdon: Routledge, 2017); Pope Francis, Encyclical.

24. Pope Francis, *Encyclical*.

25. Monbiot, Feral.

26. A term coined by Paul Kingsnorth, co-founder of a representative network, the UK-based Dark Mountain Project.

27. US writers such as William Vollmann and Roy Scranton are emblematic figures in giving literary and political expression to this kind of ecofatalism.

28. As we see in the conflicts in US conservative evangelical Christianity over the claims of 'creation care' versus a 'brown' interpretation of dominion teaching and a conservative Christian allegiance with climate change 'sceptics' and 'deniers'. See Roberts, 'Evangelicals and Climate Change'; L Kearns, 'Religious Climate Activism in the United States', in Gerten & Bergmann, Climate Change.

29. D Atkinson, Hope Rediscovered: Biblical wisdom for future societies will be richer and smarter than we are because of our commitment to turbo-charged technological development, or because in the long run we are all dead and do not need to care. This secular position entwines – via Christian votes for Donald Trump, for example – with a particular religious stance that sees the creation as doomed to eventual destruction at God's hands and as material for humanity in the meantime.

2. Promethean dominion – the secular philosophy associated with this view is 'eco-modernism'. Eco-modernists accept as fact the onset of the Anthropocene, but see it as an opportunity for a 'good Anthropocene', in which humanity can manage the planet for our benefit but also that of what remains of the non-human world. Secular 'Promethean' optimism about human capacity to steer the Anthropocene via technical innovation is connected to what has been termed a 'brown' evangelical stance in USA, in which the world is seen as a fallen zone of creation that is available for human tilling and taming.²⁰ There is a link between this Christian view of dominion as the process of converting Earth into a 'garden' and the discourse associated with eco-modernist conservation biologists who see the Anthropocene and massive dislocation of biodiversity as a fait accompli we have to deal with as well as possible.21

3. Sustainable development via green growth – this is the mainstream political stance worldwide, officially at least. It involves a recognition of ecological and social damage from the Great Acceleration, but also a conviction that with enough technological and societal innovation we can move from fossil-fuelintensive development to 'sustainable' industrial economies that minimise waste, stabilise the climate system, protect remaining ecosystems and avoid mass extinctions, while enabling the world to accommodate another major population rise to 2100. This is a less confident and more chastened version of dominion as human domination. It is a vision embraced by most churches, one that interprets the Genesis idea of 'dominion' as 'stewardship' of the gift of creation within a covenantal relationship with God; and it is also one reflected to some degree in Pope Francis's remarkable Encyclical Letter Laudato Si'.22 However, the Pope's profound text also reflects elements of the next position.

4. Sustainable development via economic and social transformation – in this cluster of values, theories and experiments, still marginal in the West and beyond, there is an urgent diagnosis that economic growth and consumption as we have known it are not compatible with climate change mitigation, repairing ecosystems and securing decent living conditions for everyone on Earth as the population rises. We need to change the social logic of competitive consumption in favour of lighter, more modest and convivial living in community, and to rethink radically the purposes of economic life.²³This implies downgrading the

pursuit of economic growth, transcending it entirely as a goal ('postgrowth') or embarking on deliberate reductions in production and consumption while maintaining or improving overall wellbeing ('degrowth'). We need to engage in deep processes of 'ecological conversion' that will reconnect us to our dependence on the Earth.²⁴ We need to act to restore ecosystems and 'rewild' the natural world and connect ourselves better to it.²⁵

5. Dark ecology – this stance is the most marginal of all, but one whose influence could grow, especially if the first stance, of denial and indifference, maintains its grip in places of power. This stance can be called dark ecology.²⁶ In this cluster of values and attitudes, it is assumed that nothing can be done to redeem industrial civilisation, which is doomed (whether in its very nature or through contingent historical developments and policy choices) to collapse as the Earth responds to the violence done to it.²⁷

This brief overview should make it clear that the conflicts raging on the ground are paralleled in, and entangled with, deep antagonisms in the culture of the West, where these debates are so far most advanced. The divisions go deep, reflecting great differences in values concerning nature, human motivation and goals, our relationship with God, our relationship with the creation and particular creatures, our concern or lack of it for the future, and our view of how progress best proceed (cooperation or competition). The conflicts also generate profound inner strains, as people increasingly face up to the implications of our consumption, and the tensions between what we want to do now, or feel compelled to do, and what we want for our children and our wider human future. The faultlines spill over political boundaries, and also divide religions against themselves.²⁸ Most alarming, the divisions among us all concerning the fate of the Earth and our part in it threaten to exacerbate existing conflicts: sharpening the partisan battles in the USA; pitching the US government against its allies and the rest of the world on climate action; pitting fossil business interests against the growing camp of pro-sustainability corporations (such as Unilever, IKEA, Marks and Spencer, etc.); adding to tensions between generations, with young people facing a future of ecological disruption that their parents and grandparents had the technology and money to avert, but chose not to.

The reality of ecological war is with us; the potential for ecological reconciliation is also real, but will demand immense work. The good news is that the work is underway, worldwide. I turn to this in the final section.

Shalom and the Earth: Ecological works of reconciliation

Bishop David Atkinson sees our goal as shalom
– defined as 'peace with justice' with a reconciled
relationship with God and his creation, on which we

depend and of which we are a part: 'Shalom means the enjoyment and liberation, all-round health and satisfaction, of being in right relationships – with God and neighbour, with oneself, and with one's environment.'29

Reconciliation for shalom in the new age of the Anthropocene, needs to be multi-stranded – with the extra-human world, which we see as God's creation; with each other; and with ourselves as consumers and co-producers of the fruits of the Earth. It needs to be a global effort at many levels of cooperation and mutuality, involving (as the Pope emphasises in his Encyclical) new forms of material restraint and modesty in consumption in the rich West, and new forms of economic justice and solidarity. It will need to bring together people of all religions and of none in collaboration and common cause; it will need to persuade and not coerce;30 the patient work of 'ecological conversion' and education spoken of by Pope Francis; and it will need to campaign for peaceful change and against the risks of further violence as the ecological crisis intensifies, as it is bound to do.

The diagnosis of ecological crisis is by now widely shared. It connects governments worldwide, as shown by the mass sign-up to the Paris Accord on climate action in 2015 and to the UN's Global Goals for Sustainable Development in the same year. Opinion polls and mass membership of environmental and pro-sustainability NGOs around the world show concern and pro-environmental values among citizens of all ages and classes. There are now many networks and projects developing in business, such as the World Business Council on Sustainable Development. There are international and national networks of regional and local governments and community organisations, such as those in the USA resisting the climate denialism of the Trump administration. There are many examples of exemplary declarations and projects in the world's major faith institutions and communities.31

In all of these cases, it is fair to say that ringing declarations of intent, statements of values and concern, and formal policy commitments so far outweigh action on the ground. There are many exemplary projects and actors, but not yet at the scale needed to mitigate global heating and avert dangerous climate disruption, or to bring a halt to the mass destruction of wildlife and habitats. There is hope of more radical action, however, for three reasons.

First, the evidence of dangerous climate disruption is mounting – it is no longer a risk for future generations but is making its mark now, in rising sea levels, extreme rains and floods, ever worse droughts and wildfires, and threats of serious resource shortages.³² More partnerships of business, NGOs and governments (especially at city level) are developing to seek solutions.

Second, creative innovations for sustainable development are emerging worldwide in the

wake of concerted action across sectors. These include new technologies for cleaner production; the development of models of 'circular economy' in which resource efficiency is maximised and wastes minimised; proposals for innovations in conservation, such as Wilson's concept of 'Half-Earth', greatly enlarging the protected area of habitats for wildlife; ³³ the vibrant debates and experiments about post-growth and degrowth models of enterprise, welfare and economy. ³⁴

Third, the religious contribution to a sustainable world of shalom in our relations with the Earth is increasingly well recognised, especially since the Pope's Encyclical of 2015 made its remarkable impact on policymakers, academic researchers and business leaders as well as on faith institutions. There is a large and high-powered literature on the theology and practice of Christian and other religious stewardship of the Earth and our embedded creaturely place in the creation.35 Perhaps most important, there is great scope for 'translation' of the Christian vision of creation care and shalom for all on Earth into terms that enable collaboration across faiths, with secular institutions, and between Christian denominations. The causes of 'climate justice', 'fair trade', 'ethical investment' and 'sustanable business' – among many such concepts and rallying cries in the worldwide movements for environmental protection and sustainable development – are very often rooted in biblical ideas whether their proponents know it or not. The retelling and translation of biblical teaching on creation care, of ideas such as Jubilee and shalom, can contribute to common cause, mutuality, love of neighbour and action to heal the divisions causing and caused by the assaults on God's good Earth.

Conclusion

Action to sustain the natural world takes on the character not only of economic and political reform and innovative policy implementation, but also of radical rethinking of ethics and the values involved in our relationship with the more-than-human world and the future of the Earth. This process of rethinking can be seen as a worldwide multi-level effort at reconciliation, taking place in the face of determined and often violent resistance.

There is a war going on and peacemaking is urgently needed. The war is against the Earth, and hence, as we are creatures of Earth, also against and within ourselves, and against God's desire for human flourishing in covenantal relationship. There are many perpetrators, but there are increasing numbers of peacemakers. Christian communities can take a lead, and need to exemplars of new ways of living and cooperating that demonstrate reconciliation with the creation, with neighbours in space and time, and with God.

an anxious world (London: Ekklesia, 2018), p. 192. This is the latest of his fine explorations of the ecological crisis and our relationship with ceation.

- 30. E.g. the patient work of 'ecological conversion' and education spoken of by Pope Francis.
- 31. See, for example, the work of the Alliance of Religions and Conservation, www.arcworld.org
- 32. As in Cape Town, which has just narrowly avoided running out of water.
- 33. Wilson, *Half-*
- 34. See, for example, the work of the UK Centre for Understanding Sustainable Prosperity – www. cusp.ac.uk
- 35. E.g C Bell et al. (eds), Living Lightly, Living Faithfully (Cambridge: Faraday Inst./KLICE, 2013); Deane-Drummond et al., Anthropocene; Gerten and Bergmann, Climate Change; R Gottlieb, A Greener Faith (Oxford: Oxford University Press, 2007); J Grim & ME Tucker, Ecology and Religion (Washington DC: Island Press, 2014); V Miller. (ed.), The Theological and Ecological Vision of Laudato Si' (London: Bloomsbury, 2017); M Northcott, A Political Theology of Climate Change (London: SPCK, 2014).