THE ENVIRONMENT, CLIMATE CHANGE AND ECOLOGICAL JUSTICE

Excerpt from Justice Ministries' Report adopted by the 2021 General Assembly

Living Faith 2.4.1 reminds us:

Our care for the world must reflect God's care. We are not owners but stewards of God's good earth. Concerned with the well-being of all of life we welcome the truths and insights of all human skill and science about the world and the universe.

Given God's love of the world and God's designation of creation as "very good", we should be concerned and care about the well-being of all life as a matter of faithful response to God's love, even when creation is healthy and well. Now, however, we hear from those who have significant skill and are respected scientists that the well-being of all life and creation is increasingly under threat. It behooves Christians to take such threats to the well-being of God's creation seriously and respond accordingly.

A brief walk through the problem

In 2019, a report to General Assembly from the International Affairs Committee examined the issue of plastics and micro plastics in the watershed (A&P 2019, p. 282–83, 30) and in its 2020 interim report, the International Affairs Committee spoke on the problem of the loss of biodiversity. Plastics are an ongoing issue polluting the watershed in Canada and throughout the world, including the world's oceans. In addition to the challenges posed by plastics to marine flora and fauna, the warming planet is also having a significant effect on the interconnected systems and bodies of water that make up so much of our world – and the relative health and temperature of our planet's water affects the rest of the world. According to the United Nations 2017 factsheet on Oceans:

- 80 per cent of all pollution in seas and oceans comes from land-based activities.
- Nitrogen loads to oceans roughly tripled from pre-industrial times due to fertilizer, manure and wastewater. The global economic damage of nitrogen pollution is estimated at \$200-\$800 billion per year.
- In many parts of the world, (urban) sewage flows untreated or under-treated, into the ocean.
- Increased nutrient loading from human activities, combined with the impacts of climate change and other environmental change has resulted in an increase in the frequency, magnitude and duration of harmful algal blooms worldwide. These algal blooms can contaminate seafood with toxins and impact ecosystem structure and function.
- Sea level rise leads to coastal erosion, inundations, storm floods, tidal waters encroachment into estuaries and river systems, contamination of freshwater reserves and food crops, loss of nesting beaches, as well as displacement of coastal lowlands and wetlands. In particular, sea level rise poses a significant risk to coastal regions and communities.
- Almost two-thirds of the world's cities with populations of over five million are located in areas at risk of sea level rise.

As recent and ongoing federal studies show, these types of issues affect communities across much of Canada, since Canada has significant stretches of coastal area. See for example the online resource, "Canada's Climate Change Report" by Natural Resources Canada. Additionally, many of these issues, including blue-green algae blooms, are affecting the Great Lakes.¹ This pollution affects the earth's and the earth's plants' and creatures' ability to adapt to the changes humans are

making. Carbon emissions from human activity contributes to rising global temperatures, which is already contributing to increased frequency and severity of natural disasters, including wildfires, hurricanes and typhoons, tornadic activity, flooding and dangerous heat waves.

Carbon emissions, global warming and changing climates

According to the report *Greenhouse Gas Sources and Sinks: Executive Summary 2019*, "Canada represented approximately 1.6% of global GHG emissions in 2015 (CAIT 2017), although it is one of the highest per capita emitters. Canada's per capita emissions have dropped substantially since 2005, when this indicator was 22.7 tons CO_2 eq/capita, reaching a new low of 19.5 tons CO_2 eq/capita in recent years." It is good to see our emissions decreasing but disheartening to hear that we are one of the highest per capita emitters, globally. While this is in part due to our reality as a northern nation requiring heat in the winter and the need for transportation of goods across Canada's significant size, looking at the numbers of nations like Finland should urge us that we can do better. According to Statistics Finland, Finland's carbon emissions in 2015 were 55.7 million tonnes; with a 2015 population of 5.472 million that puts the Finnish per capita emissions during the same period at 10.18 tons CO_2 eq/capita – close to half our Canadian number.

The 2020 *Greenhouse Gas Sources and Sinks* executive summary was released as this section of the report was updated in preparation for the 2021 General Assembly. The Executive Summary's data set ends in 2018, so does not include the effects of the pandemic and lessened travel. The news it presented was not good, though: "After hovering between 700 and 720 megatonnes of carbon dioxide equivalent (Mt CO_2 eq) in recent years, in 2018 (the most recent annual dataset in this report) Canada's greenhouse gas (GHG) emissions increased to 729 Mt CO_2 eq. This increase is attributed to higher fuel consumption for transportation, winter heating and oil and gas extraction."

The consequences of not having done better are already mounting. Summarizing some of the federal government's data on climate change impacts and adaptation, Climate Atlas notes that "Some of the projected and current effects of global warming in Canada include:

- Melting permafrost, threatening northern buildings and transportation and releasing methane, which further accelerates global warming.
- East and West coast sea level rise, threatening to flood cities, increase storm damage and accelerate erosion.
- Increased activity of pest and invasive species, posing risks to our ecosystems and our economy.
- More variable and more extreme weather, with increased risk of weather-related catastrophes such as droughts and floods.
- Hotter summers, bringing increased risks of heat-related health problems as well as longer and more severe forest fire seasons (see "Climate Change: The Basics," Climate Atlas of Canada, accessed on March 11, 2020, at climateatlas.ca/climate-change-basics).

They source this information from the federal government's web page on climate change impacts and adaptation, which includes information organized by area or concern. To learn more about the ways climate change is affecting communities and ecosystems across Canada visit that page at nrcan.gc.ca/climate-change/impacts-adaptations/10761. There is also more detailed data available on that page, with links to other resources including reports for impacts on coastal regions, forests, Northern communities and suggested tools for adaptation. The current global crisis of climate change is altering the way creation relates to itself; wind and water patterns are shifting, which has a massive impact on everyone and everything on this planet – humans, animals, plants. Living Faith reminds us, "We hold in reverence the whole creation as the theatre of God's glory and action." (Living Faith 2.1.2) Given where matters stand, holding the whole creation in reverence must entail seeking ways to mitigate the harm already done and to bring our human actions back in line with caring for this earth and loving it, rather than devastating it. To do otherwise is, put simply, to dishonour God's work and not be the faithful servants we are called to be. The earth matters to God and therefore as people of faith it must matter to us too.

Reducing carbon emissions and Just Transition

Our economy, as it exists currently and much of our social and work habits will need to change significantly in order to reduce emissions enough to ensure that life – including human life – on this planet can continue. Making the kinds of changes that are necessary will impact and disrupt lives and livelihoods, though not as much as ignoring the problem will if we don't make these changes. An important part of making the necessary changes, then, also needs to be looking at how to mitigate and address the human impact moving to a more sustainable economy and cutting our carbon emissions will do. This general concept is called "just transition" though it can have many different aspects.² A related concept, arising out of the COVID-19 pandemic is "just recovery". Principles around "just recovery" have been identified and published as guidelines for thinking through policy, practices and priorities as we recover from the pandemic both globally and locally, in ways that attend to both social and environmental concerns. Those principles and a discussion of them can be found, for instance, at KAIROS' "A Green and Just Recovery" found by visiting kairoscanada.org.

Generally speaking, when people speak about the need for a "just transition" or a "just recovery" they are talking about actions and policies to lower carbon emissions and counter climate change while also taking significant steps to support workers and families in the industries and communities affected (through such means as financial aid, job training and help finding employment). Many people also use these two phrases to emphasize the need to support communities – especially Indigenous communities and communities in the global south – who are already disproportionately affected by a changing climate and have been even further disproportionately impacted by the pandemic.

A matter of faith: Christians and climate emergency

Christians have historically liked to talk about "creation care" and "creation stewardship" (or even dominion) but have often not framed such care through a lens of justice. This is beginning to change and needs to.

Several international Christian bodies, including the World Council of Churches and the World Communion of Reformed Churches have already officially declared that we, life on earth, are in a climate emergency. As the World Council of Churches states in "Statement on the Climate Change Emergency", released in 2019, "The time for debate and disputation of established scientific facts is long over. The time for action is swiftly passing. We will all be held to account for our inaction and our disastrous stewardship of this precious and unique planet. The climate emergency is the result of our ecological sins. It is time for *metanoia* [conversion resulting from repentance] for all. We must now search our hearts and our most fundamental faith principles for a new ecological transformation and for divine guidance for our next steps to build resilience in the face of this unprecedented millennial challenge."

The World Council of Churches and the World Communion of Reformed Churches, both of which The Presbyterian Church in Canada are members of, have included recommendations for action in their climate emergency statements. These recommendations range from high level advocacy work such as calling on national and international bodies to change policies and practices to taking action on a congregational or personal level. As declarations such as these demonstrate, all layers of action and participation are vital for the worst of this crisis to be averted.³

God called creation, of which we humans are one part, "very good". Creation is something that God loves and values, not just as a "resource" for us but as having its own inherent worth. Once we understand that, it is clear to see that caring for the earth and protecting it is both a moral and a spiritual imperative – not to mention an imperative for our and the earth's survival.

In order to live up to this imperative, we need to challenge the norms and attitudes that many of us have grown so accustomed to in a society of hyper-consumption. We must challenge ourselves to re-frame our understandings of our place in the web of life. As an example of these concerning mentalities, Sasha Adkins writes in his article entitled "Plastic and the State of Our Souls: Reclaiming Life in a Disposable Culture," in the February 2020 edition of *Sojourners*:

Disposable plastic is toxic not only to the body but also to the soul. The more we normalize short-term utility as the main criterion for evaluating the things around us, the more disconnected we become from a sense of the inherent worth of creation. The more we cultivate this habit of the heart of seeing things as disposable once they no longer serve us, the less able we are to find the beauty and value in our relationships with each other or even the intrinsic value in ourselves once we are no longer 'productive'.

It is both how we approach the small things – whether to use a disposable plastic item or its reusable counterpart – and the large things – like converting from economies based in oil to renewable energies – that will determine how successful we are at abating the current climate crisis. The following recommendations are tailored to how The Presbyterian Church in Canada can take strategic steps in reducing our climate impact.

Recommendation LMA-002 (adopted, p. 38)

That the General Assembly seek to eliminate the use of single-use non-biodegradable plastics and styrofoam at its meetings.

Recommendation LMA-003 (adopted, p. 38)

That congregations, presbyteries, synods and committees of the church be encouraged to eliminate the use of single-use non-biodegradable plastics at all their meetings.

Recommendation LMA-004 (adopted, p. 38)

That Presbyterians be encouraged to write their elected officials about the need for cutting carbon emissions as well as providing support for a just transition to a sustainable economy; noting Justice Ministries has sample letters.

Recommendation LMA-005 (adopted, p. 38)

That the Moderator write a letter to the Prime Minister and to the provinces and territories urging the need to meet or surpass the Paris Agreement targets and asking that the government implement "just transition" and "just recovery" programs, including financial and employment assistance and vocational training, to address the needs of those whose livelihoods are affected by the necessity of moving to a sustainable economy; and that individuals, congregations and presbyteries be encouraged to do the same.

Recommendation LMA-006 (adopted, p. 38)

That the Moderator write a letter to the Minister of Agriculture and Agri-Food and the Minister of Environment and Climate Change highlighting the need for sustained, comprehensive collection and analysis of regional data, including on weather, flooding and droughts, to understand how changing climate is affecting agriculture and how best to pursue programs that will help farmers adapt; and that individuals, congregations and presbyteries be encouraged to do the same.

Recommendation LMA-007 (adopted, p. 38)

That congregations be encouraged to learn about issues facing the watershed in their local area and how they could get involved in addressing those issues.

Recommendation LMA-008 (adopted, p. 38)

That each national committee of the church be encouraged to review when, how and where it meets, as a means of finding ways to reduce its reliance on fossil fuels and report to the General Assembly.

Recommendation LMA-009 (adopted, p. 38)

That Presbyterians be encouraged to study the World Communion of Reformed Churches 2019 "Declaration of Climate Emergency" and the calls to its member churches and the wider ecumenical community and seek ways to implement them locally.

The full text of the Declaration can be found at wcrc.ch/wp-content/uploads/2019/09/Climate-Emergency-Letter.pdf.

The full report is found in The Presbyterian Church in Canada's Acts and Proceedings 2021, pp.407-443.