

A social message on...

Earth's Climate Crisis

As adopted unanimously on behalf of the Evangelical Lutheran Church in America by the Church Council on April 20, 2023.

"The earth is the Lord's and all that is in it, the world, and those who live in it." —Psalm 24:11

"God said, 'This is the sign of the covenant that I make between me and you and every living creature that is with you, for all future generations." —Genesis 9:12

In the Holy Scriptures, God assigns a sacred responsibility to human beings: we are to care for and keep God's creation for future generations.

The Evangelical Lutheran Church in America (ELCA) first addressed this calling three decades ago by pairing environmental justice with social justice in *Caring for Creation: Vision, Hope, and Justice.*² That statement emphasizes the goodness of all creation, humanity's kinship with other creatures, and the Holy Trinity's promise for the fulfillment of all creation (Ephesians 1:10). It also names <u>climate change</u> as a central environmental issue, one the ELCA has addressed to varying degrees since 1993.³

Thirty years later, many across the globe recognize with urgent clarity that climate change poses grave dangers to present and future generations. For example, the Lutheran World Federation has emphasized how care for creation is a core Christian calling and that climate change is a threat to justice and human rights.⁴

With this social message the ELCA provides facts, raises questions, draws on its own social teaching, and identifies convictions that expansively address caretaking for Earth's <u>climate</u>. At the heart of this social message lies the claim that climate change presents humanity with a *kairos moment*; that is, a critical moment in time when God is leading us into decisive action.

This social message is rooted in our duty to be responsible caretakers of God's creation. It is motivated by that responsibility and by hope.

Though the climate has always been subject to some change, the facts show how dramatic <u>global warming</u> depends on human practices. With God's help humanity can turn from the present course, take loving and just action, and live more harmoniously within God's beautiful and verdant creation.

1. HOW ARE CHRISTIANS CALLED TO CARE FOR CREATION?

The foundational creation stories in Genesis 1-2 express God's love for creation and how God commands humans to participate in the creation God declares good. (See especially Genesis 1:14-31 and 2:4-15, available online at <u>www.bible.com/bible/2016/GEN.1.NRSV</u>.)

Genesis 1 uses liturgical poetry to show us the beauty and goodness of each element of creation. God's first act of creation is abundant, lifesustaining light. Wondrously, the sun delivers enough energy every hour to supply humanity's energy needs for a year.⁵ The sun, the earth, the <u>atmosphere</u> ("firmament"), the oceans, and all biological organisms, including humans and all species of plants and animals—each is declared beautiful and good in itself.

Genesis 1 portrays God creating the sun and moon with the task to rule (regulate and order) day and night. Similarly, God commands the seas and the earth to bring forth and sustain every kind of creature. Each kind—fish, bird, mammal, reptile, insect, and all others—has its own fertility and call to be fruitful, to multiply, and to fill the earth (Genesis 1:24-25).

As God transforms the earth from barrenness toward abundance, God chooses to make human creatures on the same day God creates other mammals—their kin. These human creatures share some tasks of the sun and the moon (to regulate and order the earth) and some tasks of the seas and earth (to be fruitful, multiply, and fill the earth; Genesis 1:28).

God creates human beings as interdependent with the whole creation and grants humans special responsibility as innovative stewards to contribute to the flourishing of creation. It is in this sense that the human species is created "in the image of God" (Genesis 1:27). The "imago dei" is the human vocation, our calling, to participate in what God is already doing for the earth—respecting and promoting the flourishing of creation.⁶

God's charge for humans to "have dominion over" and "subdue" the earth (Genesis 1:26, 28) has been woefully misunderstood and misused to justify rapacious economic exploitation, human subjugation, and racist notions of manifest destiny.⁷ That interpretation betrays and undermines why God creates and how God acts in the Scriptures.

Both the Creator's model of dominion in Genesis and the example of our Lord Jesus teach us to serve others rather than dominate and degrade them. Created from the earth's dust (Genesis 2:7), human beings are given the responsibility to keep or care for the earth just as God keeps and cares for us (Numbers 6:24-26). The Hebrew word *shamar*, translated as "keep," means to protect and sustain Earth's life for future generations.

Today this call to participate in God's care for creation presents a particularly significant responsibility. Like the portrayal of sin's entrance into creation in Genesis 3, the ELCA's social statement *Caring for Creation* reminds us that "[humans] have rebelled and disrupted creation."⁸ That disruption today is painfully evident in changes to Earth's atmosphere that produce floods, heat waves, droughts, and other climate and <u>weather</u> anomalies at historic rates and bring suffering to habitats and communities around the world.

2. HOW ARE CHANGES IN EARTH'S ATMOSPHERE AFFECTING OUR CLIMATE AND LIFE ON EARTH?

Viewed from space, Earth's atmosphere appears as a very thin and iridescent blue line around the circumference of the planet. Over billions of years, this miraculous shield has fostered a wondrous explosion of life on the land, in the sea, and in the air while also protecting life from dangerous forms of solar radiation.

Scientists attribute these conditions that are conducive to life to the "greenhouse effect." Various gases in the atmosphere—water vapor, carbon dioxide, ozone, methane, and nitrous oxide—retain some of the heat from the sun that strikes Earth and bounces back to space. As a result, the average temperature of Earth during all of human civilization has been around 57 degrees Fahrenheit (14 degrees Celsius). Without the thin blanket provided by these greenhouse gases Earth's temperature would be -0.4 degrees Fahrenheit (-18 degrees Celsius).⁹ Scientists also warn that *if* the nations of the world continue to burn fossil fuels (coal, oil, and natural gas) that emit carbon dioxide and other greenhouse gases, temperatures will rise faster than most species can adapt.

The combustion of fossil fuels has powered most of the global economy for over 200 years and has permitted remarkable advances in food production, medicine, transportation, and consumer goods. Today's crisis is that the concentration of carbon dioxide in Earth's atmosphere is now higher than at any other time in the last 3.6 million years.¹⁰ Not only are current global emissions of carbon dioxide increasing, but the rate of emission is also accelerating. The same is true for methane and nitrous oxide emissions. A sign of hope, however, is found in the decline of certain gases used in refrigeration (CFC-11 and CFC-12) because of regulations that were imposed after the U.S. signed the Montreal Protocol to protect Earth's ozone layer.¹¹ (See Figure 1.)

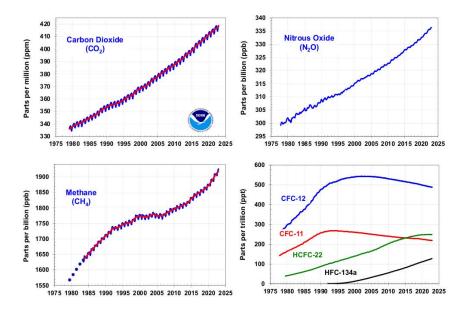


Figure 1: Global Average Abundances of the Major, Well-mixed, Longlived Greenhouse Gases—Carbon Dioxide, Methane, Nitrous Oxide, and Refrigerant Gases

Source: NOAA's Annual Greenhouse Gas Index (updated Spring 2022)

In June 2022 global atmospheric concentrations of carbon dioxide reached a record 419 particles per million (ppm).¹² (See Figure 2.)

The increasing concentrations of these greenhouse gases cause Earth to retain more and more heat from the sun, which has led to an increase in global warming and related climate change. According to the most recent Assessment Report (AR6) issued by the United Nations Intergovernmental Panel on Climate Change (IPCC), Earth's global surface temperature has increased by around 1.9 degrees Fahrenheit (1.1 degrees Celsius) since 1850.13 (See Figure 3.)

This rate of warming is unprecedented over at least the last 12,000 years. Earth has not been this hot

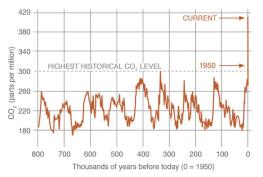


Figure 2: Carbon Dioxide—Proxy (Indirect) Measurements (From Ice Cores) Source: <u>NASA, Global Climate Change: Key</u> <u>Indicators</u>

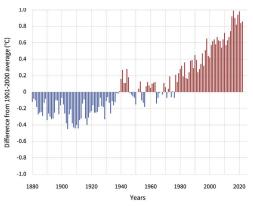


Figure 3. Global Average Surface Temperature (1880-2020) Source: <u>NOAA, Climate Change: Global</u> <u>Temperature</u> (updated June 2022)

since long before human civilization, at least 125,000 years ago.¹⁴ Not surprisingly, evidence of this warming is visible all over the world.

Ice sheets in the Arctic and on Greenland are melting at an accelerating rate. At the same time, glaciers are melting and retreating almost everywhere around the world, which jeopardizes drinking water sources for nearly two billion people.¹⁵

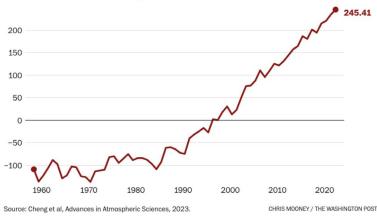
This increase in freshwater melting, combined with the expansion of seawater due to warmer temperatures, is also raising global sea levels at

an accelerating rate.¹⁶ These rising seas imperil one billion people who live less than 10 meters above current high tide lines, and this will likely displace millions of people.¹⁷

The warmer temperatures that result from global warming also pose grave public health risks. This is especially true for those who suffer from the "<u>heat island effect</u>" in cities with few green spaces, those who can't afford air conditioning, those who work outdoors, or those who experience homelessness. The overwhelming majority of people who experience these negative health outcomes have low incomes and tend to be Black people, Indigenous people, and other people of color.

This climate change also dramatically increases the frequency and intensity of extreme weather events such as droughts, floods, hurricanes, and wildfires, with huge losses of life and property, reduced agricultural yields, and costly disruptions to society.

Of course, climate change doesn't affect only human beings. Across the globe, changing <u>ecosystems</u> are hastening the <u>extinction</u> of many plant and animal species. This is especially true in Earth's oceans, which have stored 90% of the excess heat to date and suffered significant <u>coral</u> <u>bleaching</u>, <u>acidification</u>, and adverse impacts on marine species. (See Figure 4.)



Heat content in the upper 2000 meters of the ocean in zettajoules (10²¹ joules), relative to the 1981-2010 average.

Figure 4. A New Record High for Ocean Heat in 2022¹⁸

The impacts of global warming and climate change grow only more severe with each passing year.

3. ARE WE FACING A CRITICAL MOMENT WITH REGARD TO EARTH'S CLIMATE?

The Intergovernmental Panel on Climate Change (IPCC) was formed in 1988 to provide governments at all levels with scientific information that they can use to develop climate policies. Comprehensive scientific assessment reports are published by the IPCC every six to seven years. These reports are the product of an open and transparent review by experts and governments around the world.¹⁹ In 2018 the IPCC issued a special report warning that the impacts of climate change could become catastrophic for human civilization if global warming exceeds a rise of 1.5 degrees Celsius (27 degrees Fahrenheit).²⁰

The IPCC's Sixth Assessment Report, published in 2021, warns that "global surface temperature will continue to increase until at least midcentury under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in carbon dioxide and other greenhouse gas emissions occur in the coming decades."²¹

According to the United Nations Environment Programme (UNEP), given the current rate of greenhouse gas emissions, the world will experience a global temperature rise of 2.7 degrees Celsius by the end of this century.²² Even if all the nations that signed the United Nations 2015 Paris Agreement follow through on their commitments,²³ warming is still projected to reach 2.4 degrees Celsius.²⁴ Recall that Earth has warmed 1.1 degrees Celsius (1.9 degrees Fahrenheit) since 1850; *we face another 1.3 to 1.6 degrees Celsius (2.3-2.9 Fahrenheit) over the next seven decades*, with warming projected to continue increasing at the end of the 21st century.

Justifiably alarmed by this information, U.N. Secretary-General António Guterres declared the IPCC's Sixth Assessment Report a "code red for humanity." In a statement issued with the report he wrote: "The alarm bells are deafening, and the evidence is irrefutable: greenhouse gas emissions from fossil fuel burning and deforestation are choking our planet and putting billions of people at immediate risk."²⁵

From a standpoint of faith, it is reasonable to conclude that the climate crisis is, indeed, a kairos moment.

The ancient Greeks had two words for "time." *Chronos*, or regular time, referred to our usual sense of time as ordinary, quantitative, and sequential. *Kairos*, or critical time, in contrast, referred to an unusual moment that is extraordinary, qualitative, and decisive. In the Greek New Testament, authors use kairos "to emphasize a special moment of time when God visits [God's] people to offer them a unique opportunity for repentance and conversion, for change and decisive action. It is a time of judgment. It is a moment of truth, a crisis."²⁶

In the New Testament the word *kairos* most often refers to a decisive moment when all were called to repent, believe in the gospel, and follow Jesus. In Christian theology, however, the concept is not confined to this salvific context. In other decisive moments, such as the Reformation period (1517-1580), Christians have used "kairos" to name God's urgent call for decisive action in history.²⁷

Confronted by the challenges posed by climate change and other environmental problems such as species extinction and loss of **biodiversity**, some Christians today draw upon "kairos" not only to express the decisive moment of call from God but also to remind believers that, in this call, God empowers hope and action:

[W]e use the Greek word kairos to describe a moment in time, often a brief moment in time, which has eternal significance. ... For the human race as a whole, there is now a *kairos*, a decisive time in our relationship with God's creation. We will either act in time to protect life on earth from the worst consequences of human folly, or we will fail to act.²⁸

4. HOW SHOULD CHRISTIANS BEGIN TO RESPOND TO THIS KAIROS MOMENT?

As the science related to global warming and climate change has become more definitive and persuasive, many across the globe are raising increasingly anguished cries.

Many of us in the ELCA contribute to and/or volunteer for organizations, such as Lutheran Disaster Response and the International Committee of the Red Cross, that have diligently responded to the devastation caused by wildfires in the West, tornadoes in the Midwest and Southeast, and flooding throughout the country, caused by severe storms and hurricanes.

Scientists say these natural disasters have intensified due to global warming and climate change.

It is frightening and disheartening to learn that growing numbers of farm workers and livestock are dying from heat stress in the United States and around the world.²⁹ Some of us work outdoors or know others who do, and we all rely on farmers who plant, cultivate, and harvest the food we take for granted. Some of us live in states along the southern U.S. border where rapidly growing numbers of desperate people seek safety and opportunity in our country as they flee the consequences of increasing ecological devastation in their countries of origin.

In addition, some who need the income from fossil fuel extraction, or who work for companies that extract that fuel to power our economy, feel vilified or disregarded. They often feel this most strongly from those who argue urgently for a just transition to <u>clean energy</u> and rapid decreases in greenhouse gas emissions.

Others who live next to oil refineries, coal-fired power plants, natural gas production and distribution facilities, plastic manufacturers, and freeways feel disregarded, disrespected, and ignored, even as they breathe in <u>noxious emissions</u> from these facilities.

All around us are voices crying out for help and transformation.

The disruption of creation and these diverse voices make clear that human beings have failed to live out their vocation to be good and caring "keepers" of creation. Living in right relationship with God and creation begins with confession and repentance.

As God's people we are called to confess:

- Our failure to consider the interests of future generations.
- Our disregard for the victims of environmental injustice.
- Our insufficient concern for the welfare of other species facing extinction.
- Our personal complicity through high-carbon lifestyles.
- Our dismissive disdain for those with whom we disagree.

The ELCA teaches that, though sin has personal dimensions, "sin is ... also collective or communal. Sinful humans create structures, organizations, and societies that perpetuate sin, sometimes

unintentionally. This is called 'structural sin.'"³⁰ <u>Colonialism</u> and industrialization are two structural factors responsible in large measure for the social and ecological woes we face today.

Some of us have benefited from these structural forces at the expense of others who live with the consequences in degraded landscapes and polluted conditions. "In our liturgy, we name this systemic reality in the confession: 'We are captive to sin and cannot free ourselves.' Once we understand our own participation in this systemic harm, we can identify it as sin, confess it, and, through the grace and strength of God, begin to act differently."³¹

5. WHAT INSIGHTS FROM ELCA SOCIAL TEACHING ARE HELPFUL?

Law, Gospel, and the Role of Government. Our Lutheran tradition says that God actively pursues the flourishing of life in human society in two ways—through the gospel and the law.

As Redeemer of the world, God works through the church to proclaim the gospel and to promote mercy and reconciliation through proclamation of the word and administration of the sacraments. As Creator of the world, God uses civil authorities to restrain evil, establish a modicum of justice, and promote the common good through rule of law and use of reason.

Given the systemic nature of the climate crisis, government and public policy are both key. Lutherans believe "government remains God's gift because it is intended to do what churches, families, individuals, and businesses cannot do on their own: protect and coordinate the well-being of individuals, communities, and creation."³² The litmus test for government action is whether our neighbor is being served and whether justice is being done.

Three Dimensions of Climate Justice. What constitutes justice is not always self-evident, however. Figuring out what constitutes justice in the context of climate change is even more complicated because it involves at least three interlocking dimensions.

First is the question of *intragenerational* justice. That is, how should society distribute fairly among present generations the burdens associated with reducing greenhouse gas emissions (mitigation) and grappling with the costly impacts of climate change (adaptation)? Second is the question

of *intergenerational* justice. That is, how can we best respect and defend the interests of future generations of our and other species and the integrity of the ecological systems upon which life depends? Finally, there is the matter of *intersectional* justice. That is, how does climate justice intersect with historical injustices related to race, class, and gender?

Four Moral Principles. The 1993 ELCA social statement *Caring for Creation* identifies four moral principles to help us discern what justice requires in these three dimensions: participation, solidarity, sufficiency, and sustainability. These four principles, used across several ELCA social statements, are directly relevant to ethical discussions about the climate crisis.

For example, the principle of *participation* stresses that all forms of life are important and that their interests must be heard and respected in decisions that affect their lives. At a minimum this means "our church may be a place where differing groups can be brought together, tough issues considered, and a common good pursued."³³

The principle of *solidarity* highlights the kinship and interdependence of all forms of life and encourages support and assistance for those who suffer. *Caring for Creation* emphasizes that "this church will ... be in solidarity with people who directly face environmental hazards from toxic materials, whether in industry, agriculture, or the home. We will insist on an equitable sharing of the costs of maintaining a healthy environment."³⁴

The principle of *sufficiency* means "meeting the basic needs of all humanity and all creation."³⁵ Insofar as the norm of sufficiency emphasizes fairness and repudiates wasteful and harmful consumption, it represents one dimension of distributive justice. "Sufficiency charges us to work with each other and the environment to meet needs without causing undue burdens elsewhere."³⁶

Finally, the principle of *sustainability* values "the capacity of natural and social systems to survive and thrive together over the long term."³⁷ Widespread poverty plaguing present generations is not just or sustainable; in addition, we must recognize that sustainability obviously requires "a larger scope of accountability to future generations."³⁸

Prioritize the Poor and Vulnerable. A moral commitment implied by these four principles and thoroughly grounded in ELCA social teaching is the *ethical priority for the most vulnerable and marginalized*. For example:

God stands in judgment of those in authority who fall short of their responsibility, and is moved with compassion to deliver the impoverished from all that oppresses them: "Give justice to the weak and the orphan; maintain the right of the lowly and the destitute" (Psalm 82:3). The rich are expected to use wealth to benefit their neighbors who live in poverty here and throughout the world.³⁹

Our neighbors include "all people and creation throughout the world."⁴⁰ Christians have a prophetic obligation "to identify the power of sin present in social structures, and to advocate in hope with poor and powerless people."⁴¹ One of the greatest injustices wreaked by climate change is how, across the globe, those living in poverty have contributed the least to produce it and yet bear its greatest consequences.

The Precautionary Principle. Finally, ELCA social teaching brings to bear on the climate crisis what has come to be called *the precautionary principle*. "When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, action shall be taken to avoid or diminish that harm."⁴² This is a sound basis for heeding the warnings of scientists and reducing emissions through public policy and international cooperation, as well as through personal and corporate responsibility.

6. HOW DOES THE ELCA TEACH THAT CLIMATE CHANGE SHOULD BE ADDRESSED?

From these ethical insights emerge the following convictions regarding the challenges posed by global warming and climate change.

This church acknowledges that some in our church don't think the church or people of faith should get involved in politics. ELCA teaching takes a more nuanced view: "Taking partisan stances is not the church's role, but 'politics' has to do with negotiating how the benefits and burdens of living in a society are shared."⁴³ In a democracy, Christians share political responsibility. The ELCA encourages Christians to participate in the affairs of government. The principle of participation authorizes this church's advocacy speaking alongside and with those who are marginalized—including for creation itself, since it has no voice in the halls of power. This happens when "members speak out individually or as part of activist groups. It also includes the public witness coordinated by the advocacy offices of the ELCA or of Lutheran partner nongovernmental organizations."⁴⁴ Members of our church have a moral obligation to be engaged in setting the direction of our country as we live out our vocation to care for God's creation.

We must be guided by both courage and humility as we pursue these faithful endeavors. On the one hand, we need to summon the courage to face the climate crisis and the perils it poses to human civilization as well as the diversity of life on Earth. On the other hand, we need to exercise humility regarding how best to address these perils.

We can agree on ends but disagree on means. Well-intentioned people can disagree about what constitutes the better part of moral action. We must deliberate and collaborate together because we cannot solve the problem individually or as a single institution. Moral deliberation and action together are essential to our identity as a church.

We also need patience and fortitude. The challenges posed by global warming and climate change are the consequence of human activities since the Industrial Revolution. Systemic changes take time and require careful deliberation to avoid unintended consequences.

Guided by these insights, this church puts forward the following convictions to guide discernment and actions toward the challenges posed by the climate kairos:

A. The ELCA calls upon individuals, agencies, organizations, corporations, and governments *to pursue goals, set policies, and establish practices that:*

- Affirm the overwhelming scientific evidence that the current rise in emissions and related global warming has been caused by human activity.
- Invite and engage all stakeholders to develop climate change solutions that are appropriate to their locale and adequate to the challenges we face.

- Promote a just transition from fossil fuels to a clean-energy future that leaves no one behind, through public investments in economic development and job retraining programs.
- Prioritize allocation of resources to those who bear the least responsibility for greenhouse gas emissions but already experience disproportionately its costly impacts.
 - Foster restorative justice by fully funding the United Nations Green Climate Fund and significant funds for U.S. victims of environmental injustice within "frontline communities."
- Reduce greenhouse gas emissions at the rate scientists project will keep global warming below 2.0 degrees Celsius (3.6 degrees Fahrenheit) and as close as possible to 1.5 degrees Celsius.
 - Include an interim U.S. target of 50% reduction of greenhouse gas emissions from 2005 levels by 2030.
 - Affirm differing but increasingly ambitious reduction targets for signatories of the Paris Agreement.
- Support mitigation strategies to achieve this goal, including:
 - Increased regulation of the sources of greenhouse gas emissions.
 - Increased access to and incentives for home weatherization, energy efficiency, renewable energy systems, building electrification, and the electrification of transportation to reduce household energy burdens.
 - New and expanded state and federal clean-energy standards.
 - Carbon-pricing approaches that successfully mitigate regressive impacts on low- and moderate-income households while also effectively reducing emissions.
 - Improved forest management practices that reduce deforestation and promote biodiversity through afforestation (tree planting) in urban, suburban, and rural areas.
 - Increased incentives for long-lasting soil <u>carbon sequestration</u> and other regenerative practices on farms and ranches, such as silvopasture,⁴⁵ managed grazing, perennial staple crops, tree intercropping, regenerative annual cropping, conservation agriculture, and abandoned farmland restoration.⁴⁶

- Dietary and other personal lifestyle changes that result in fewer greenhouse gas emissions, such as eliminating food waste, composting, adopting plant-rich diets, building and utilizing bicycle infrastructure, carpooling, and promoting walkable communities.⁴⁷
- Support strategies that enable adaptation to climate change, including:
 - Protection of coastal wetlands.
 - Sustainable agroforestry.
 - Decentralized renewable energy ownership, production, and distribution.
 - Securing and protecting the land rights of Indigenous peoples.
 - Increased and improved public transit.48
- B. Likewise, this church rejects beliefs, goals, and policies that:
 - Dismiss the fact that the world's industrialized nations are responsible for the vast majority of greenhouse gas emissions since the dawn of the Industrial Era, or the fact that current per capita emissions in the United States are three times higher than the global average.⁴⁹
 - Prioritize economic impacts on present generations without considering social, economic, or ecological consequences for future generations.
 - Foment political conflict through the distortion of scientific research and misrepresentation of the intentions of opponents.
 - Disregard the intersectional nature of climate change and vilify those who work in the fossil fuel industry rather than directing criticism toward those who have the power to change the systems and policies that limit or dictate our energy choices.
 - Perpetuate the disproportionate burden borne by those whose communities host industries that produce harmful pollution and greenhouse gas emissions.
 - Adopt a self-serving or defeatist perspective since these perpetuate the unjust status quo and avoid moral responsibility for climate change.

C. In addition, the ELCA will *raise searching questions about goals and policies that:*

- Result in toxic wastes posing grave dangers to present and future generations.
- Rely exclusively on technological solutions to reduce emissions and/or to address Earth's energy imbalance.⁵⁰
- Refuse to consider how climate change imperils financial investments or how investments in fossil fuel companies perpetuate and exacerbate climate change.

D. Finally, the ELCA challenges all expressions of this church to:

- Promote creation care through preaching, worship, and educational programming.⁵¹
- Consider adopting congregational commitments to creation care, for example, by becoming a Creation Care Covenant Congregation via Lutherans Restoring Creation⁵² and/or becoming a Cool Congregation via Interfaith Power & Light.⁵³
- Provide pastoral care to those struggling with "climate anxiety" and other related mental health concerns, especially our youngest people.⁵⁴
- Witness publicly to the climate crisis and "walk the talk" by:
 - Achieving the same levels of greenhouse gas reduction that we urge the U.S. government to pursue.
 - Investing in energy efficiency and renewable energy systems.
 - Reviewing how ELCA landholdings can be used to sequester carbon, promote biodiversity, and/or encourage other life-giving relationships with creation.
 - Becoming "anticipatory communities" that model climate resiliency (e.g., emergency shelters, cooling spaces, community gardens).
- Demonstrate our care for creation via our budgeting and investment of church funds—including screening fossil fuel stocks or engaging in <u>shareholder activism</u> regarding such funds.
- Promote scientific literacy and instruction about global warming and climate change in all our educational institutions.
- Engage in legislative advocacy at all levels of government, individually and collectively.

- Join with ecumenical, interfaith, and secular partners working to address the climate crisis.⁵⁵
- Engage in acts of community organizing to build stronger relationships and more resilient communities that can take action to create meaningful climate solutions and help people understand that they have the power to make lasting change.⁵⁶

CONCLUSION: WHERE DO WE FIND HOPE AND POWER FOR FACING CLIMATE CHANGE?

Our planet has a fever, and this climate crisis is a kairos moment. Just as Martin Luther's career reflected "a dynamic of protest and reform matched to a keen sense of *kairos*," all Christians are called to face the climate crisis in a similar way.⁵⁷

As members of this society, we would do well to heed the insight of Dr. Martin Luther King Jr., whose words in his time resonate for us as we confront the climate crisis today:

We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there is such a thing as being too late. Procrastination is still the thief of time. ... Over the bleached bones and jumbled residues of numerous civilizations are written the pathetic words, Too late.³⁵⁸

Our church, then, views the present reality and the future we are moving into with grave concern but also is empowered by a vision of flourishing and hope as God's invitation to join God's action toward healing the earth. The recent social statement *Faith, Sexism, and Justice* summarizes this vision well:

We of the Evangelical Lutheran Church in America believe God's intention revealed through the Scriptures is that all people have life abundantly and flourish. From creation to redemption in the Christian story, the Scriptures reveal God's intention of abundant and flourishing life for creation, including for human beings. ... The Book of Revelation speaks of the healing of the nations and closes with a vision of new heavens and earth as the ultimate outcome of God's resolve (Revelation 22:1-2). This church believes the triune God intends creation to flourish and is ever at work so that all people may thrive.⁵⁹

We believe God yearns and strives for Earth's ecological well-being, and we trust that "God's faithfulness alone sustains the Church and renews our faith, hope, and love."⁶⁰ As God's people we address the climate crisis with active hope rather than paralyzing despair. "Captured by hope, we proclaim that God has made peace with all things through the blood of the cross (Colossians 1:15-20), and that the Spirit of God, 'the giver of life,' renews the face of the earth."⁶¹

May the Holy Spirit renew this church's sense of emergency and empower us to faithful and fervent action in this kairos moment.

GLOSSARY

<u>Acidification</u> — Like a sponge, earth's oceans are absorbing an increasing amount of carbon dioxide from the atmosphere, which makes them more acidic. This absorption helps regulate the planet's atmospheric carbon dioxide concentrations, but more acidic water harms sea life.

<u>Atmosphere</u> — A mixture of gases that surrounds Earth. It helps make life possible by giving us air to breathe, shielding us from the sun's harmful ultraviolet radiation, trapping heat to warm the planet, and preventing extreme temperature differences between day and night.

<u>Biodiversity</u> — The variety of life found in a place on Earth or the total variety of life on Earth. The term also encompasses the genetic variety within each species and the variety of ecosystems that species create.

<u>Carbon Sequestration</u> — The process of capturing, securing, and storing carbon dioxide from the atmosphere, thereby preventing its warming effects.

<u>Clean Energy</u> — Energy forms that, unlike fossil fuels, do not produce carbon dioxide and air pollution. Sun, wind, and hydropower are the main examples. Nuclear power is also clean energy, though its waste is toxic and must be properly stored.

<u>Climate</u> — The long-term pattern of weather in a particular area, usually measured over multiple decades.

<u>Climate Change</u> — Long-term shifts in temperatures and weather patterns. Such shifts can be natural due to changes in the sun's activity or to large volcanic eruptions. Since the 1800s, however, the main driver of climate change has been human activity. <u>Colonialism</u> — The establishment of foreign rule over a territory and its people. Colonialism includes political and legal domination over a subordinate people, the exploitation of human and natural resources, the redistribution of those resources to benefit imperial interests, and the construction of racial and cultural difference that privileges the colonial ruler and colonists.

<u>Coral Bleaching</u> — A warming planet means a warming ocean, and a change in water temperature—as little as 2 degrees Fahrenheit—can cause coral to drive out algae. Once these corals die, reefs rarely return and marine biodiversity suffers.

 $\underline{\text{Ecosystem}}$ — A geographic area where plants, animals, and other organisms, along with weather and landscape, interact to form a network of life. Every factor in an ecosystem depends on every other factor, either directly or indirectly.

<u>Extinction</u> — The dying out or extermination of a species. Extinction occurs when species are diminished because of environmental forces (habitat fragmentation, climate change, natural disaster, overexploitation of species for human use) or because of long-term evolutionary changes in their members (genetic inbreeding, poor reproduction, decline in population numbers).

<u>Global Warming</u> — Global warming is the unusually rapid increase in Earth's average surface temperature. Earth has experienced both warming and cooling in the past without help from humanity, but the current climatic warming is occurring much more rapidly than during any previous warming events.

<u>Heat Island Effect</u> — A phenomenon whereby cities experience higher air temperatures than the surrounding countryside. On average, cities tend to be 1-7 degrees Fahrenheit warmer during the daytime. This difference continues well into the night, when cities can still be as much as 5 degrees Fahrenheit warmer than the areas around them. People living in urban heat islands are especially vulnerable to the effects of global warming.

<u>Human Flourishing</u> — Relative attainment of a state in which all aspects of a community's life are good, including the context in which each individual lives. Flourishing is about the well-being of human groups, which depends on both technology and a healthy environment that allows sufficient, sustainable livelihood for all.

<u>Noxious Emissions</u> — Toxic air pollution resulting from human activity. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution.

<u>Shareholder Activism</u> — The efforts of any investor to leverage their rights and privileges as an owner to change a company's practices or strategy.

<u>Weather</u> — The conditions on the surface of the Earth such as wind, temperature, or precipitation, especially during a particular and relatively short time period in a particular area.

ENDNOTES

¹ Biblical references throughout this social message are from the New Revised Standard Version Updated Edition (NRSVUE).

² ELCA social statement <u>*Caring for Creation: Vision, Hope, and Justice</u> (1993): 11.</u>*

³ See "<u>Caring for Creation: Climate Change</u>," issue paper for ELCA Corporate Social Responsibility, approved by the ELCA Church Council, November 2021 [CC21.11.251].

⁴ "<u>Climate Justice</u>," Lutheran World Federation.

⁵ Quirin Schiermeier et al., "<u>Energy Alternatives: Electricity Without</u> <u>Carbon</u>," *Nature* 454 (2008): 816-23.

⁶ ELCA social statement *Genetics, Faith and Responsibility* (2011): 10.

⁷ "<u>A Declaration of the Evangelical Lutheran Church in America to</u> <u>American Indian and Alaska Native People</u>" (2021), Evangelical Lutheran Church in America.

⁸ <u>Caring for Creation: Vision, Hope, and Justice</u> (1993): 3.

⁹ "<u>Global Warming</u>," NASA Earth Observatory, June 3, 2010.

¹⁰ "Despite Pandemic Shutdowns, Carbon Dioxide and Methane Surged in 2020," NOAA Research News, April 7, 2021.

¹¹ "<u>About Montreal Protocol</u>," United Nations Environment Programme.

 ¹² "<u>The NOAA Annual Greenhouse Gas Index</u>," Global Monitoring Laboratory, updated spring 2022. See also Valérie Masson-Delmotte et al., "Summary for Policymakers" in <u>Climate Change 2021: The Physical Science</u> <u>Basis</u> (Cambridge, England: Cambridge University Press, 2021): 8, A.2.1.

¹³ Valérie Masson-Delmotte et al., "Summary for Policymakers," ibid.: 5, A.1.2.

¹⁴ For changes in global surface temperature, reconstructed from paleoclimate archives, see Valérie Masson-Delmotte et al., "Summary for Policymakers," ibid.: 6, panel (a).

¹⁵ J.S. Mankin et al., "<u>The Potential for Snow to Supply Human Water Demand</u> <u>in the Present and Future</u>," *Environmental Research Letters*, 10(11), 1-10.

¹⁶ "<u>How Do We Know Climate Change Is Real?</u>," NASA Global Climate Change.

¹⁷ Scott A. Kulp and Benjamin H. Strauss, "<u>New Elevation Data Triple</u> <u>Estimates of Global Vulnerability to Sea-level Rise and Coastal Flooding</u>," *Nature Communications* 10, article 4844 (2019).

¹⁸ Chris Mooney and Brady Dennis, "Oceans Surged to Another Record-high Temperature in 2022," Washington Post, Jan. 11, 2023.

¹⁹ "<u>About the IPCC</u>," Intergovernmental Panel on Climate Change (IPCC). According to NASA, "the vast majority of actively publishing climate scientists—97 percent—agree that humans are causing global warming and climate change." See "<u>Do Scientists Agree on Climate Change?</u>," NASA Global Climate Change.

²⁰ Valérie Masson-Delmotte et al., "Summary for Policymakers" in <u>Special</u> <u>Report: Global Warming of 1.5° C</u>, Intergovernmental Panel on Climate Change, 2018.

²¹ Valérie Masson-Delmotte et al., "Summary for Policymakers" in <u>Climate</u> <u>Change 2021: The Physical Science Basis</u> (Cambridge, England: Cambridge University Press, 2021): 14, B.1.

²² "<u>Emissions Gap Report 2021</u>," United Nations Environment Programme, Oct. 26, 2021.

²³ "<u>The Paris Agreement</u>," United Nations Framework on Climate Change.

²⁴ "Global Temperatures: Evaluating Progress Towards the Paris Agreement," Climate Action Tracker, updated Nov. 9, 2021.

²⁵ "<u>Guterres: The IPCC Report Is a Code Red for Humanity</u>," United Nations, Aug. 9, 2021.

²⁶ Robert McAfee Brown, ed., *The Kairos Document: Challenge to the Church*, rev. 2nd ed. (Skotaville Publishers and William B. Eerdmans Publishing Company, 1987): 2. Cited in Robert McAfee Brown, ed., *Kairos: Three Prophetic Challenges to the Church* (Eerdmans Publishing, 1990): 26. See also Barbara R. Rossing and Johan Buitendag, "Life in Its Fullness: Ecology, Eschatology and Ecodomy in a Time of Climate Change," *HTS Teologiese Studies / Theological Studies*, vol. 76, no. 1. (2020).

²⁷ See Daniel Weidner, "<u>Prophetic Criticism and the Rhetoric of Temporality:</u> <u>Paul Tillich's Kairos Texts and Weimar Intellectual Politics</u>," *Political Theology* 21:1-2 (2020): 71-88. ²⁸ Bartholomew I of Constantinople, "<u>Symposium VII: 'Arctic: The Mirror of Life</u>," Orthodox Fellowship of the Transfiguration (Sept. 12, 2007): 3.

²⁹ "<u>Heat Stress Prevention</u>," Association of Farmworker Opportunity Programs. According to the Centers for Disease Control and Prevention, farmworkers die from heat-related illness at a rate 20 times greater than that of the entire U.S. civilian workforce. See also Bill Chappell, "<u>Days of Intense Heat Have Killed</u> <u>Thousands of Cattle in Kansas</u>," NPR/Wisconsin Public Radio, June 16, 2022.

³⁰ ELCA social statement *Faith, Sexism, and Justice: A Call to Action* (2019): 38.

³¹ <u>Ibid</u>.

³² ELCA social message "<u>Government and Civic Engagement in the United</u> <u>States: Discipleship in a Democracy</u>" (2020): 2.

³³ Caring for Creation: Vision, Hope, and Justice (1993): 6.

³⁴ Ibid. The principle of solidarity supports intragenerational transfers of resources from the rich to the poor so that they can adapt to climate change both now and in the future, but it also calls present generations to make sacrifices for future generations as a matter of intergenerational ethical responsibility (see pp. 11-12). See also ELCA social statement *Sufficient, Sustainable Livelihood for All* (1999): 15.

³⁵ *Caring for Creation: Vision, Hope, and Justice* (1993): 7.

³⁶ <u>Ibid</u>.

³⁷ Sufficient, Sustainable Livelihood for All (1999): 14.

³⁸ ELCA social statement *Genetics, Faith and Responsibility* (2011): 22. The principle precludes shortsighted emphases on economic growth that fundamentally harms Earth's climate now and in the future, but it also excludes any approaches to climate policy that do not address the fact that 3 billion people in the world currently lack access to modern energy sources for cooking and heating their homes. See Max Roser, "Energy Poverty and Indoor Air Pollution: A Problem As Old As Humanity That We Can End Within Our Lifetime," Our World in Data, July 5, 2021.

³⁹ ELCA social statement *Sufficient, Sustainable Livelihood for All* (1999): 6.

⁴⁰ <u>**Ibid**</u>.: 4.

⁴¹ ELCA social statement <u>Church in Society: A Lutheran Perspective</u> (1991): 3.

⁴² *Genetics, Faith and Responsibility* (2011): 27, footnote 41.

⁴³ ELCA social message "<u>Government and Civic Engagement in the United</u> <u>States: Discipleship in a Democracy</u>" (2020): 2.

⁴⁴ *Genetics, Faith and Responsibility* (2011): 25.

⁴⁵ Silvopasture integrates trees, pasture, and foliage into a single system. Incorporating trees into agriculture improves land health and increases carbon sequestration. See "<u>Silvopasture</u>," Project Drawdown.

⁴⁶ "<u>Table of Solutions</u>," Project Drawdown.

⁴⁷ <u>Ibid</u>.

⁴⁸ Isabella Suarez, "<u>5 Strategies That Achieve Climate Mitigation and Adaptation Simultaneously</u>," World Resources Institute, Feb. 10, 2020.

⁴⁹ See "<u>CO₂ and Greenhouse Gas Emissions</u>," "<u>Per Capita CO₂ Emissions</u>," and "<u>Cumulative CO₂ Emissions</u>," Our World in Data.

⁵⁰ <u>Caring for Creation: Vision, Hope, and Justice</u> (1993): 12. See also ELCA social statement <u>Genetics, Faith and Responsibility</u> (2011): 18.

⁵¹ For example: <u>ELCA Caring for Creation Today</u>, <u>ELCA Creation Care</u> <u>Ambassadors program</u>, and <u>Lutherans Restoring Creation</u>.

⁵² "<u>What Can We Do?</u>," Lutherans Restoring Creation.

⁵³ "<u>Cool Congregations</u>," Interfaith Power & Light.

⁵⁴ See Sarah E.O. Schwartz et al., "<u>Climate Change Anxiety and Mental</u> <u>Health: Environmental Activism as Buffer</u>," *Current Psychology*, Feb. 28, 2022, and "<u>New APA Poll Reveals That Americans Are Increasingly Anxious</u> <u>About Climate Change's Impact on Planet, Mental Health</u>," American Psychiatric Association, Oct. 21, 2020.

⁵⁵ For example, <u>Creation Care Collective</u>, <u>Interfaith Power & Light</u>, <u>GreenFaith</u>, and <u>Citizens' Climate Lobby</u> (<u>CCL Lutheran Action Team</u>).

⁵⁶ "<u>Organizing for Mission</u>" and "<u>15 Steps to Create Effective Climate</u> <u>Communications</u>," Evangelical Lutheran Church in America.

⁵⁷ Larry Rasmussen, "<u>Waiting for the Lutherans</u>," *Currents in Theology and Mission* 37:2 (April 2010): 86.

⁵⁸ Martin Luther King Jr., "A Time to Break Silence," in James Melvin Washington, ed., *A Testament of Hope: The Essential Writings and Speeches of Martin Luther King, Jr.* (San Francisco: Harper San Francisco, 1991): 243.

⁵⁹ *Faith, Sexism, and Justice: A Call to Action* (2019): 2, 14-15.

- ⁶⁰ *Church in Society: A Lutheran Perspective* (1991): 8.
- ⁶¹ Caring for Creation: Vision, Hope, and Justice (1993): 5.

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