



Global Warming

Understanding the urgent challenges shaping our planet's future and understanding two different Christian views of this matter

September 1, 2025



Earth's Climate System Overview

- The Earth's climate system consists of the atmosphere, oceans, land surfaces, ice masses, and living organisms, all interacting dynamically.
- Greenhouse gases from human activities trap heat in the atmosphere, disrupting the natural balance and causing global temperatures to rise.
- This warming triggers cascading effects across the climate system, influencing weather patterns, sea levels, and ecosystem health.
- The interconnectivity means changes in one component, like ocean temperature, impact others, amplifying global warming consequences.
- Understanding this complex system is essential to predict climate changes and develop effective mitigation strategies.

Oceans: Heat Absorption and Consequences



Thermal Expansion and Sea-Level Rise

- Heating causes water to expand, directly raising global sea levels.
- Sea levels have risen approximately 20 cm since 1901, accelerating recently.
- Projected rise could reach up to 1 meter by 2100 under high emissions.



Marine Heatwaves and Coral Bleaching

- Marine heatwaves have doubled in frequency and grown more intense since the 1980s.
- These heatwaves cause widespread coral bleaching by stressing corals.
- A 1.5°C temperature rise threatens 70-90% of coral reefs; 2°C could cause near-total loss.
- Coral loss threatens marine biodiversity and disrupts ocean ecosystems.

Ocean Acidification and Marine Life

- Oceans absorb about 25% of human-produced CO₂, lowering seawater pH and causing ocean acidification.
- Acidic waters reduce the ability of shell-building organisms like oysters, clams, and corals to form shells and skeletons.
- Coral reefs, vital for marine biodiversity, are especially vulnerable, with acidification weakening their structure and growth.
- Disruption to these organisms affects entire marine food webs, threatening fisheries and biodiversity.
- Ocean acidification combined with warming poses a dual threat to marine ecosystems and the communities dependent on them.

Weather Extremes and Atmospheric Changes



Increased Atmospheric Moisture

Warmer air holds more moisture, fueling intense rainfall and flooding. This moisture intensification is a key driver behind more frequent and severe storms worldwide.



Heatwaves and Droughts

Rising temperatures cause prolonged heatwaves and worsen drought severity. These conditions increase heat-related illnesses and reduce water availability in many regions.



Wildfires and Powerful Storms

Hotter, drier conditions extend wildfire seasons, destroying ecosystems and releasing pollutants. Meanwhile, warmer oceans energize hurricanes and typhoons, increasing their intensity and destruction.



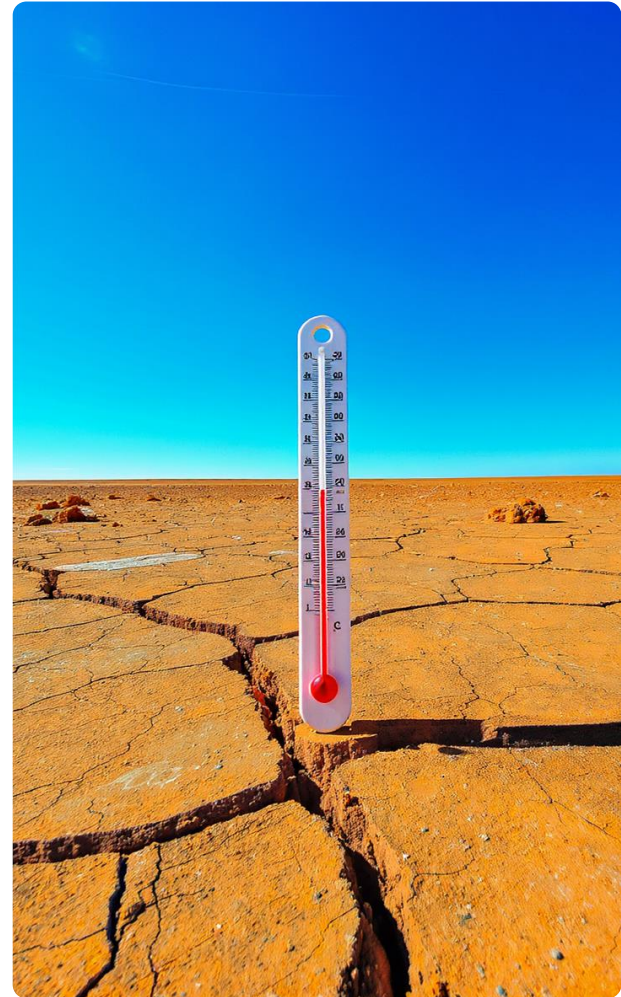
Heatwaves, Droughts, and Human Health

Rising Heatwaves and Drought Frequency

- Nearly all land areas now experience more frequent and intense heatwaves.
- Heatwaves have led to increased heat-related illnesses and mortality worldwide.
- Droughts are becoming more prolonged and severe, especially in Europe and other vulnerable regions.
- Climate models project drought frequency could double with a 3°C rise in global temperatures.

Health and Economic Impacts

- The UK recorded 3,271 excess deaths during five heat periods in summer 2022.
- Heat stress exacerbates cardiovascular and respiratory diseases, increasing hospital admissions.
- Economic losses from droughts in Europe could exceed €400 billion annually with rising temperatures.
- Vulnerable populations, including the elderly and low-income groups, face heightened risks.



Wildfires and Air Pollution

- Climate change is increasing the frequency and duration of wildfire seasons due to hotter and drier conditions.
- Extended wildfires destroy vast areas of forests and wildlife habitats, leading to loss of biodiversity and ecosystem services.
- Wildfires release large amounts of carbon dioxide and other greenhouse gases, contributing to a feedback loop that accelerates global warming.
- Smoke and particulate matter from wildfires significantly degrade air quality, causing respiratory and cardiovascular health problems for nearby populations.
- Regions like the Mediterranean and western North America are experiencing longer, more intense wildfire seasons, threatening communities and infrastructure.





Weather

Storms and Flooding Intensification

- Warming ocean temperatures provide more energy to tropical cyclones, hurricanes, and typhoons, increasing their intensity and potential destructiveness.
- Higher atmospheric moisture from warmer seas fuels heavier and more prolonged rainfall events during storms, increasing the risk of severe flooding.
- Increased flooding damages critical infrastructure, disrupts communities, and displaces populations, especially in coastal and low-lying areas.
- Stronger storms and floods result in greater economic losses, environmental degradation, and heightened challenges for disaster preparedness and response.

The Cryosphere: Melting Ice and Permafrost



Glacier and Ice Sheet Melting

Ice sheets in Greenland and Antarctica, along with mountain glaciers worldwide, are melting at accelerated rates, significantly contributing to rising sea levels and threatening coastal regions globally.

Permafrost Thaw

Thawing permafrost in Arctic regions releases trapped greenhouse gases like methane and carbon dioxide, intensifying global warming through a positive feedback loop.

Rising Sea Levels and Ecosystem Impacts

The meltwater from glaciers and ice sheets causes sea levels to rise, which endangers coastal ecosystems, increases flooding risks, and impacts millions of people living in low-lying areas.

Impacts on Ecosystems and Biodiversity



Species Adaptation and Extinction Risks

- Many species face challenges adapting to rapidly changing temperatures and habitats.
- Forced migration to cooler areas often leads to overcrowding and competition.
- Species unable to migrate or adapt face heightened risk of extinction.
- Polar bears struggle as sea ice shrinks, threatening their hunting grounds and survival.



Phenology Changes and Ecosystem Disruption

- Climate change alters timing of natural events like flowering and migration.
- Mismatches between pollinators and plants disrupt food chains and reproduction.
- Coral reefs suffer from bleaching due to warming seas, losing biodiversity hotspots.
- Disrupted ecosystems reduce resilience and increase vulnerability to further changes.

Human Health and Social Impacts

01 Health Threats by WHO

The World Health Organization identifies climate change as the largest health threat, from malnutrition, malaria, diarrhoea, and heat stress due to rising temperatures and changing disease patterns.

02 Food and Water Security Risks

Changing rainfall and temperature patterns disrupt agriculture and fisheries, reducing crop yields and fish stocks, while droughts and heat stress threaten livestock, putting 3.6 billion people at risk of food and water scarcity globally.

03 Mental Health and Displacement

Extreme weather events and resource scarcity increase anxiety and stress, while rising sea levels and disasters force millions to become climate refugees, creating major social and psychological challenges worldwide.

Economic Consequences of Climate Change



- Annual health-related costs from climate change are projected to rise dramatically due to heat stress, disease, and malnutrition.
- Destruction of infrastructure from extreme weather events leads to costly repairs and disrupts essential services, straining public and private finances.
- Agricultural productivity declines from droughts, heat, and changing rainfall patterns, threatening food security and farmer livelihoods.
- Small island nations and developing countries face the greatest economic hardships despite contributing least to emissions, exacerbating global inequality.
- Disaster recovery and adaptation efforts require massive investment, diverting resources from other development priorities.

Contrasting Christian Views on Global Warming

01

The Stewardship View

- Sees humanity as caretakers entrusted by God to nurture and protect creation.
- Focuses on moral responsibility to address global warming as an act of faith.
- Emphasizes a nurturing relationship with the environment based on biblical commands.
- Views Earth as a sacred trust requiring active protection for current and future generations.

02

The Dominion View

- Emphasizes human authority and God's sovereignty over creation.
- Interprets biblical dominion as permission to use Earth's resources for human benefit.
- Often prioritizes spiritual and evangelistic missions over environmental concerns.
- May view environmental issues as secondary or sceptical of climate change urgency.

Theological Foundations of Stewardship



Genesis 2:15 and 'Shamar'

God placed Adam in Eden to 'work it and take care of it,' highlighting the Hebrew word 'shamar,' meaning to guard, keep, and nurture creation responsibly.



Creation Declared 'Very Good'

Repeated in Genesis 1, God's declaration of creation as 'very good' affirms the inherent value and sacredness of the natural world to be preserved and honoured.



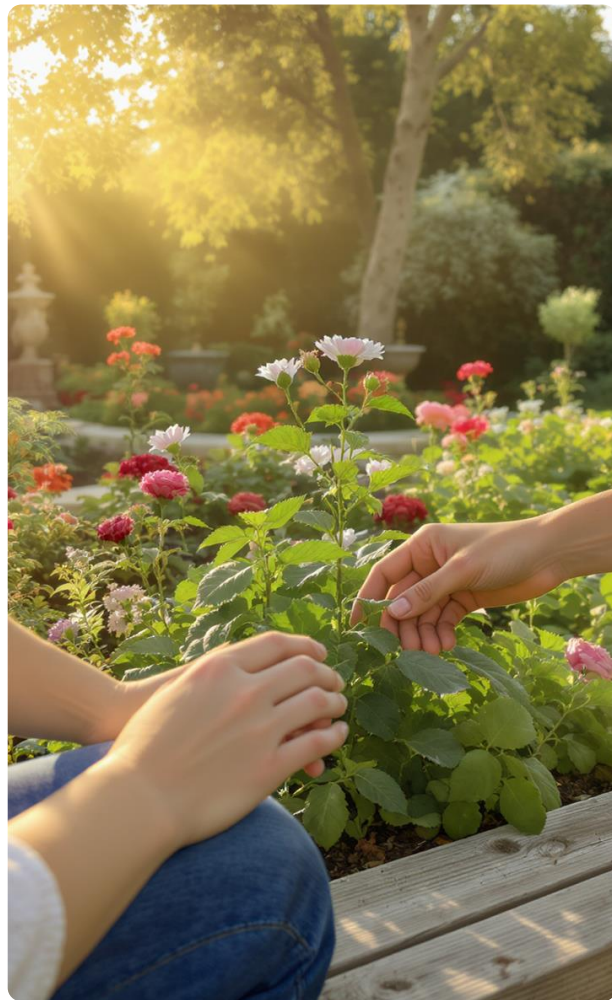
Caring for the Poor & Climate Justice

Stewardship links ecological care with social justice, recognising that climate change disproportionately harms the poor, calling Christians to defend the vulnerable.



Eschatology of Renewal

Rather than destruction, scriptures like Romans 8:19-22 and Revelation 21 envision creation's renewal, motivating believers to participate in God's restorative work now.





Stewardship

Stewardship View: Moral Responsibility

- Christians see caring for the Earth as a sacred duty entrusted by God, reflecting respect for His creation.
- Addressing climate change is viewed as a moral imperative tied to faith, justice, and love for neighbour.
- The stewardship view calls for proactive engagement in environmental protection as an act of worship and obedience.
- Ignoring environmental harm contradicts the biblical mandate to nurture and protect the 'very good' creation.
- This responsibility extends to defending vulnerable communities disproportionately affected by climate change.

Climate Change and the Poor



Disproportionate Impact on Vulnerable Populations

- Climate change intensifies droughts, floods, and extreme weather, worsening poverty.
- Poor communities lack resources to adapt, increasing their vulnerability.
- World Bank (2023) projects billions of more people in extreme poverty by 2030 due to climate change.
- This exacerbates hunger, displacement, and health crises globally.



Christian Moral Response and Social Justice

- Pope Francis highlights the link between ecology and social justice in Laudato Si'.
- "A true ecological approach always becomes a social approach," emphasizing care for the poor.
- Christians are called to act against climate change to protect the most vulnerable.
- Climate action is integral to living out faith through love and justice.

Eschatology of Renewal

- Romans 8:19-22 describes creation as 'groaning' in anticipation of liberation and renewal, reflecting the earth's longing for restoration from suffering caused by human sin.
- This passage frames environmental care as participating in God's redemptive plan, not merely a worldly concern.
- Revelation 21 offers a vision of a 'new heaven and a new earth,' emphasizing renewal and perfection rather than destruction or abandonment of the current creation.
- The future hope of restoration inspires Christians to act responsibly today, seeing environmental stewardship as part of their spiritual mission and faithfulness to God's creation.

Support from Christian Leaders and Organizations



Archbishop Desmond Tutu

The late Archbishop Desmond Tutu declared that ignorance on climate change is no longer excusable, urging urgent Christian action grounded in justice and care for creation.



Pope Francis and Laudato Si'

Pope Francis' 2015 encyclical highlights climate as a common good, calling for rapid transition from polluting fossil fuels and linking ecological care with social justice.

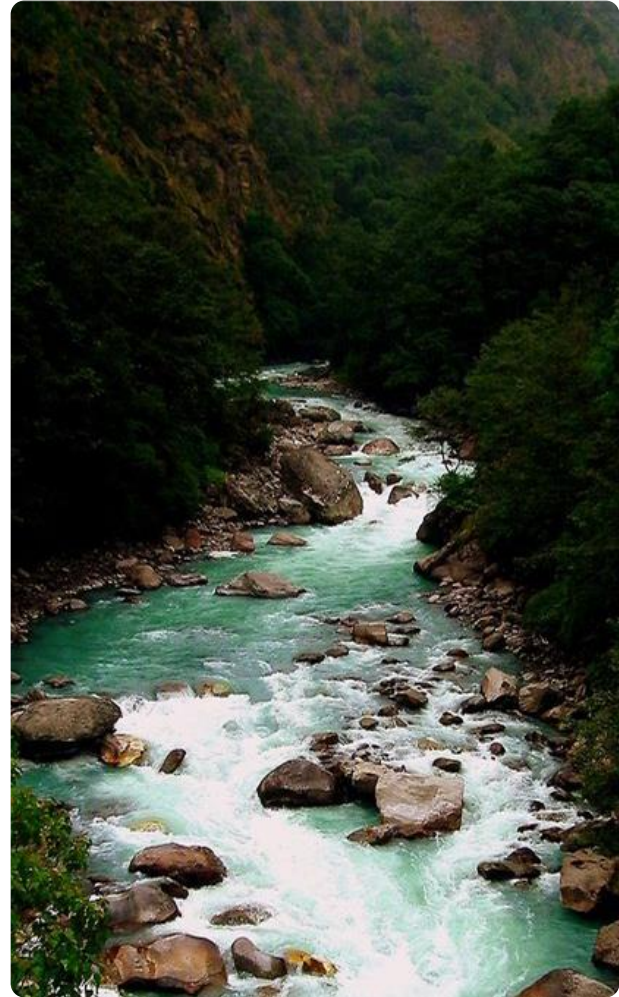


UK Christian Organisations

Groups like A Rocha UK and Tearfund lead efforts in climate justice, highlighting the impact of climate change on poverty and advocating for ethical stewardship.

The Dominion View: God's Sovereignty and Human Primacy

- Emphasises God's supreme control over creation and humanity's special role within it.
- Interprets Genesis 1:28 as a mandate for humans to have dominion over Earth's resources for human benefit.
- Views God's sovereignty as guaranteeing the Earth's ongoing natural cycles, regardless of human actions (Genesis 8:22).
- Often sceptical about climate change urgency, prioritising spiritual concerns and evangelism over environmental activism.
- Sees Earth as temporary, destined for renewal after an end-times event, making environmental efforts secondary to preparing souls for eternity.



Theological Foundations of Dominion



Genesis 1:28 – Dominion Mandate

This verse commands humanity to 'have dominion over the fish, birds, and every living thing,' interpreted as God granting humans authority to use Earth's resources for their benefit and flourishing.



God's Sovereignty and Earth's Cycles

Genesis 8:22 promises that 'seedtime and harvest, cold and heat, summer and winter' will continue, affirming God's control over creation's ongoing natural cycles despite human actions.



End-Times Prophecy of Earth's Destruction

2 Peter 3:10-13 describes the heavens and Earth being destroyed by fire before a new creation, suggesting the current Earth is temporary and will be replaced, shaping the dominion view's eschatology.



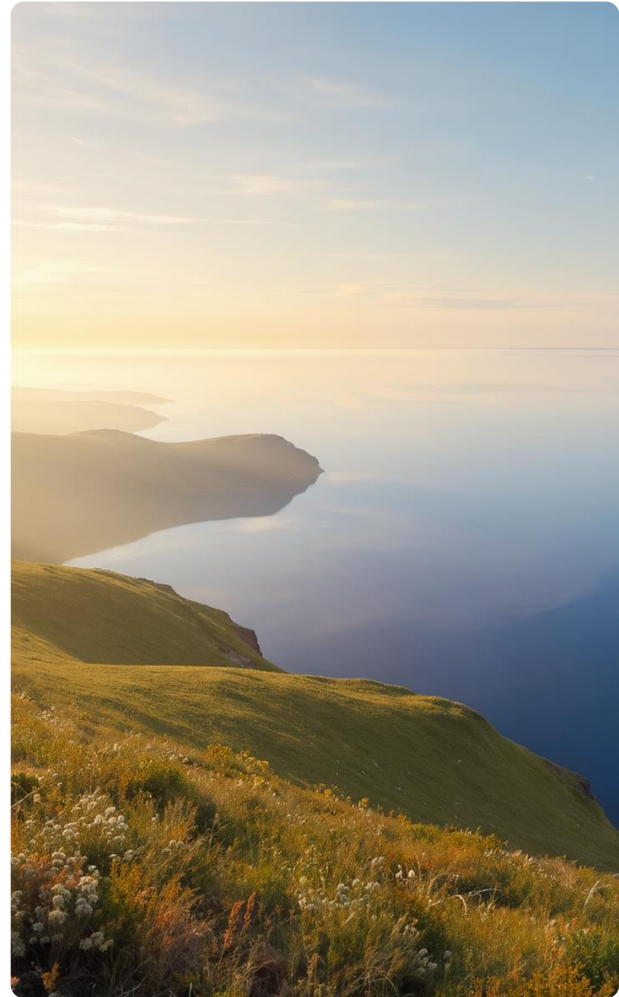
Environmentalism and Idolatry Concerns

Some proponents warn that prioritising nature can become 'earth worship,' diverting devotion from God to creation, which they view as a form of idolatry that misplaces Christian focus.



Dominion View: Priorities and Perspectives

- Earth is viewed as a temporary creation, destined for renewal or replacement according to God's ultimate plan.
- Environmental efforts are often seen as secondary or even distracting from the primary Christian mission of evangelism and spiritual preparation.
- Focus is placed on saving souls and spreading the Gospel rather than prioritising ecological activism.
- Confidence in God's sovereignty reassures believers that the natural order will persist despite human actions.
- Concerns exist that excessive focus on environmentalism may divert attention from spiritual priorities.



Demographics

Climate Change Skepticism and Demographics

35%

Older Adults Concerned

28%

Conservative Political Climate Concern

32%

Male Respondents Concerned

65%

General UK Population Concern

Voices Supporting Dominion View

//

Douglas Wilson, a prominent UK evangelical pastor and author, critiques modern climate change concerns as a "moral panic" rooted in secular ideology rather than biblical truth. He encourages believers to maintain confidence in God's sovereignty, stating, "God is Lord of the climate, and His plan will not be overturned by human fears or policies."



Douglas Wilson, UK Evangelical Pastor and Author



Dominion

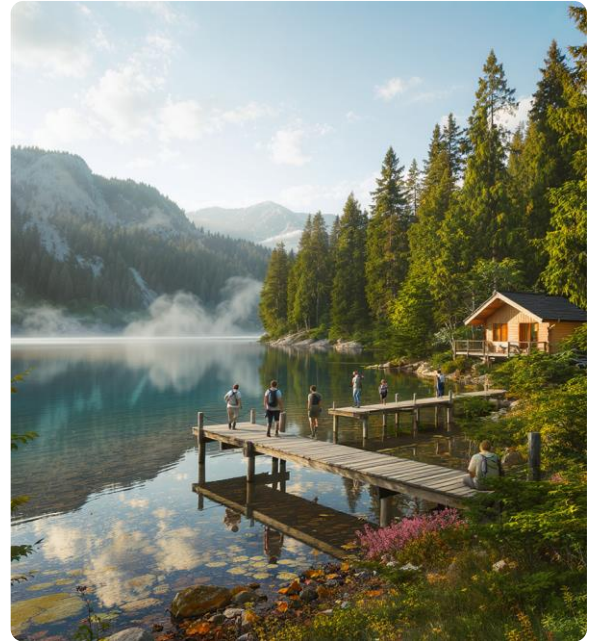
Resource Allocation Debate

- Many holding the dominion view argue that financial resources dedicated to climate initiatives could be better used for direct evangelism efforts, spreading the Christian faith.
- Humanitarian aid, such as poverty alleviation and disaster relief, is seen as a more immediate and tangible way for Christians to enact their faith and help those in need.
- This perspective holds that focusing on climate change risks diverting attention and funds from what they consider the primary Christian mission: saving souls and spiritual renewal.
- The belief that God's sovereignty ensures the Earth's future leads some to conclude that human efforts should concentrate on spiritual matters rather than environmental activism.

Conclusion

Stewardship calls for nurturing the Earth as God's gift, while dominion stresses human authority and God's control, prioritising spiritual mission over environmental care. This shapes Christian responses to climate change and humanity's role in creation.

The tension between stewardship and dominion views lies in seeing creation either as a sacred trust to protect or as a resource to be used under God's sovereign authority.



Reconciling Stewardship and Dominion: Toward a Balanced Christian Response

The stewardship view calls for active care of Earth as God's sacred creation, emphasizing moral responsibility and social justice. The dominion view stresses God's sovereignty and human authority, focusing on spiritual mission and trust in God's plan.

Reconciling these views means valuing both creation care and God's control. This balanced approach encourages Christians to protect the environment and vulnerable people while maintaining faith in God's sovereignty and spiritual priorities.

Thank you