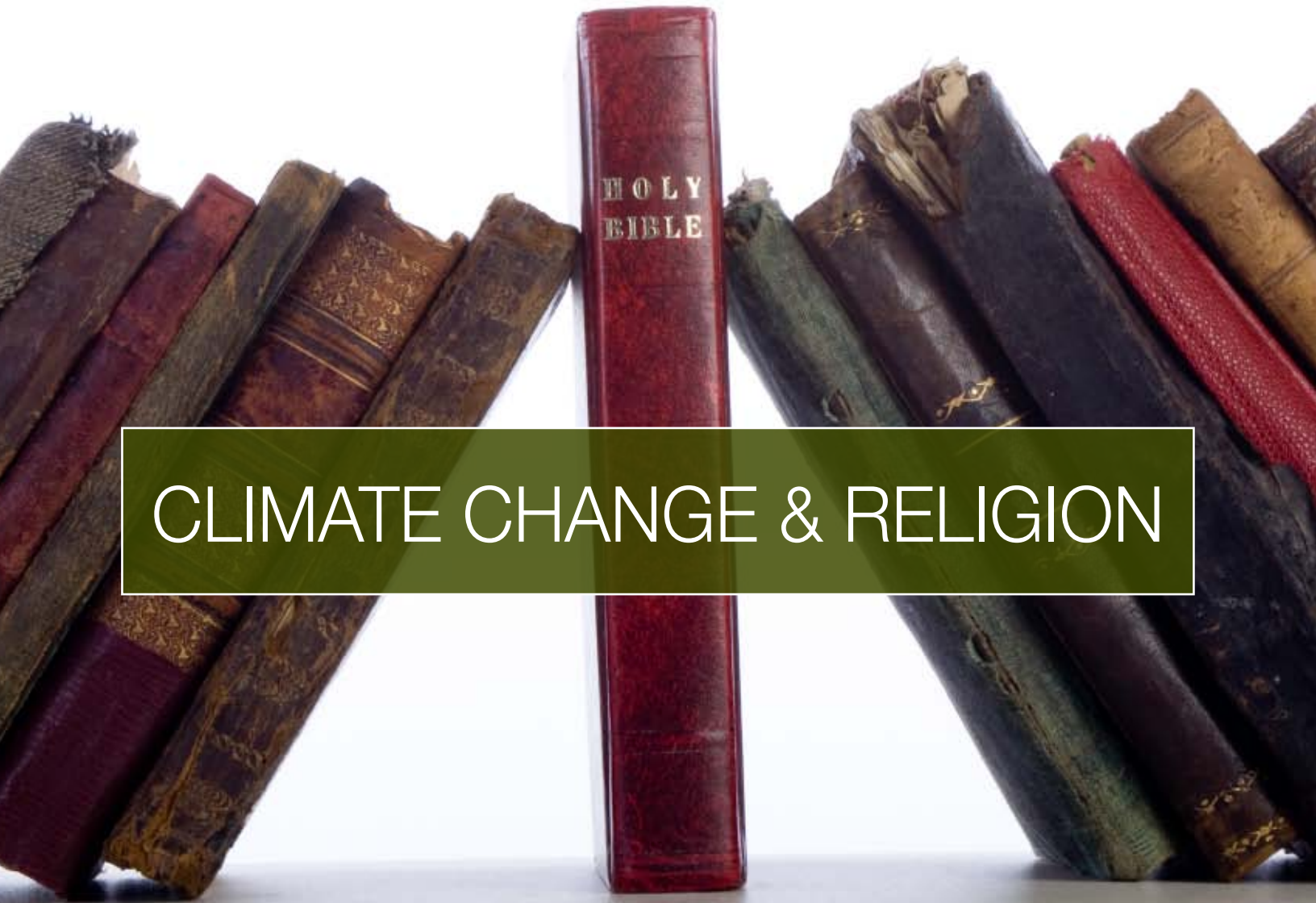


PARENT / TEACHER LESSON PLANS



CLIMATE CHANGE & RELIGION



Summary

In this lesson, students will watch a short video produced by National Geographic about climate change. The purpose of the lesson is to get students to think critically about what they see and to recognize the humanistic worldview behind the movies. This worldview will then be compared with our Christian belief about the world.

Essential Question

Are Christians able to effectively challenge the basis of public opinion and consensus around climate change?

With this question, students are challenged to take a topic that our culture and media pushes as ‘accepted’ and ‘beyond dispute’. This question gets beyond the scientific detail and looks at the philosophical underpinnings of what this argument is based upon.

Summary

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Engage the Students

- It will be necessary to set the context for the students. This lesson is not intended to dispute whether climate change as presented by mainstream media and culture is accurately presented. What it is intended to do is to help us understand what worldview that representation comes from. It is a secular one and not a Christian one.
- We will explore an eight minute long video clip looking for ways in which it gives us clues about its motivation.
- The video is located at <http://video.nationalgeographic.com/video/way-forward-climate>

Explore Propaganda

- Distribute *Handout 1 – Detecting Techniques to Make You Believe the Message*. Discuss the variety of techniques with students.
- Put a large, visible timer at the front of class so students can indicate the time code at which they detect persuasive techniques.
- Watch the National Geographic video and instruct students to focus on the video and if there are any obvious techniques that are obvious, to write them down including the time code.
- Discuss with students a few of the obvious techniques that they picked up.
- Watch the video a second time with instructions to pay closer attention to the words and techniques that are used.
- Review with students any additional techniques they observed.
- A few that they likely picked up are:
 - Global warming “threatens every species on earth”

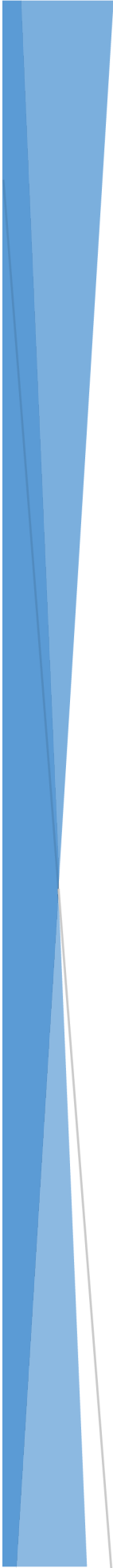
- “The world’s top scientists...have issued urgent warnings.”
- “The IPCC reports leave no room for doubt. Global warming is a fact.”
- “Humans are the main cause of climate change and its dangerous side effects.”
- Global warming will intensify drought...aggravate flooding...lead to disappearing glaciers and rising oceans, disturb biodiversity, kill off some species, lead to starvation, make third world countries suffer the most
- “We can shape a different future.” We must stabilize greenhouse gas emissions so that the temperature can drop two degrees. All of us must change our consumption patterns. But it is largely up to governments. IPCC suggests we change the way we think about energy. Help developing countries choose a more environmentally friendly course.

Extend the Learning to the Worldview

- Distribute *Handout 2 – Who is Your Authority?* Lead a class discussion on what students think the answers to are in the first column about the source of authority that the climate change video appeals to.
- Together complete both columns of the organizer.
- Various responses have been included as source of discussion.

Extension

- Dependent on the grade and classroom, consider distributing a copy of ARPA’s *Respectfully Submitted* policy report on Climate Change.
- Students need to paraphrase this research for a non-political audience.
- Consider watching a well-known film like *An Inconvenient Truth* and completing this same activity to look for a foundational worldview and claim to authority.



Teacher Overview – Religion and Climate Change

Turn on the radio or TV, look through a newspaper or magazine, and you will undoubtedly come across something about “climate change.” How did this one issue consume the West so quickly? Why has the media and our governments bought into it with religious zeal? Why do we hear it referred to as “climate change” rather than “global warming” now?

Christians have a God-given mandate to care for this world. Being “green” is usually a good thing. But there is something about this whole climate change hype that seems wrong. What is the problem? Is it just bad science? Or is there more to it than that?

The purpose of this lesson is to get students to understand that there is more to the climate change hype than bad science. It is being promoted with religious zeal because there is religious motivation behind it. Secular humanism believes that we are all there is. Without an all-powerful and loving God, we have to be responsible for Mother Earth ourselves. Humans are to blame for changes in climate and humans are responsible to fix it. Mixed in through all of the climate change rhetoric is the call to a form of international socialism. International bodies (such as the United Nations) are supposed to govern the redistribution of resources from richer nations to developing nations. National governments are not to be trusted because they will likely consider only their own well-being. These unaccountable transnational bodies are given more and more power as they work towards promoting their humanistic worldview.

Respectfully Submitted



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POLICY REPORT for Parliamentarians

Courtesy of the Association for Reformed Political Action (ARPA) Canada

In announcing his newly-elected cabinet, Prime Minister Justin Trudeau broke with the past by lengthening the title of the 'Minister of the Environment' to now include 'and Climate Change'. This was meant to signal to Canadians that the new government is making climate change policy a priority, worthy of a key cabinet post. One of Minister Catherine McKenna's first tweets as Minister was, "Canada agrees the science is indisputable, and we recognize the need for urgent/greater action that is grounded in robust science." The Association for Reformed Political Action (ARPA) Canada shares the Minister's passion for grounding climate policy in "robust science" and encourages the Parliament of Canada to re-examine the facts and ideologies directing climate change policy.

The idea of climate change – specifically catastrophic anthropogenic (man-caused) global warming – was brought to public attention when high-profile environmentalists and politicians publicized statistics showing a rapid increase of the earth's temperature since the industrial revolution. The signing of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and Al Gore's *Inconvenient Truth* documentary popularized the cause. Based on computer modelling of historic weather patterns, cataclysmic predictions were made: total polar ice-cap melts, dramatic increases in sea levels, flooding in some areas and severe droughts in other areas, the extinction of animal and plant species, and the increase of natural disasters, plagues and famines which will alter the lives of billions of people across the globe. Such predictions are understandably alarming.

Catastrophic anthropogenic climate change is promoted most prominently by the Intergovernmental Panel on Climate Change (IPCC), an international body of climate scientists and government representatives under the auspices of the UNFCCC and the World Meteorological Organization. A 2014 report summarizes their findings:

Anthropogenic forcings have likely made a substantial contribution to surface temperature increases since the mid-20th century over every continental region except Antarctica... It is very likely that human influence has contributed to the observed global scale changes in the frequency and intensity of daily temperature extremes since the mid-20th century... Multiple lines of evidence indicate a strong, consistent, almost linear relationship between cumulative CO₂ emissions and projected global temperature change to the year 2100.¹

The IPCC report also calls for international action and makes numerous policy recommendations. Some of those recommendations include carbon dioxide taxes and economic sanctions in the form of cap-and-trade to 'price' carbon dioxide into the market. Other recommendations include major government subsidies for particular renewable energy sources like wind and solar power. The IPCC and dozens of environmental organizations continue to have a significant impact on Canada's municipal, provincial, and federal environmental policies.

This report will outline several assumptions in the climate debate, assess the validity and policy implications of these assumptions, address the troubling muzzling of credible – though dissident – scientific voices, and argue for a mandate of creation stewardship that the Canadian government should adopt. This report concludes with a series of recommendations for shaping environmental policy.

Climate Change

Fall 2015

Faulty Assumptions

There are a surprising number of unsubstantiated assumptions made by those who call for drastic action to combat catastrophic anthropogenic global warming:

Assumes the climate can accurately and consistently be modeled: Model outputs are predictions of the future and, like any prediction, they may prove to be unsubstantiated due to errors in reasoning. Hind-casting of models demonstrates that climate models tend to overestimate temperature trends,² being very poor at predicting the cooling impact of cloud cover, underestimating the impact that significant plant growth from increases in CO₂ will have on actual CO₂ values in the atmosphere, failing to properly estimate isoprene levels in the atmosphere,³ and more.⁴ The global increase of temperature is at most 0.8°C since the beginning of the 20th century, and has stopped trending upwards as seen in *Figure 1*.⁵ Global carbon dioxide output, however, has continued to increase. The correlation between carbon dioxide and temperature cannot be nearly as direct as many scientists originally thought. From the IPCC Third Assessment Report,

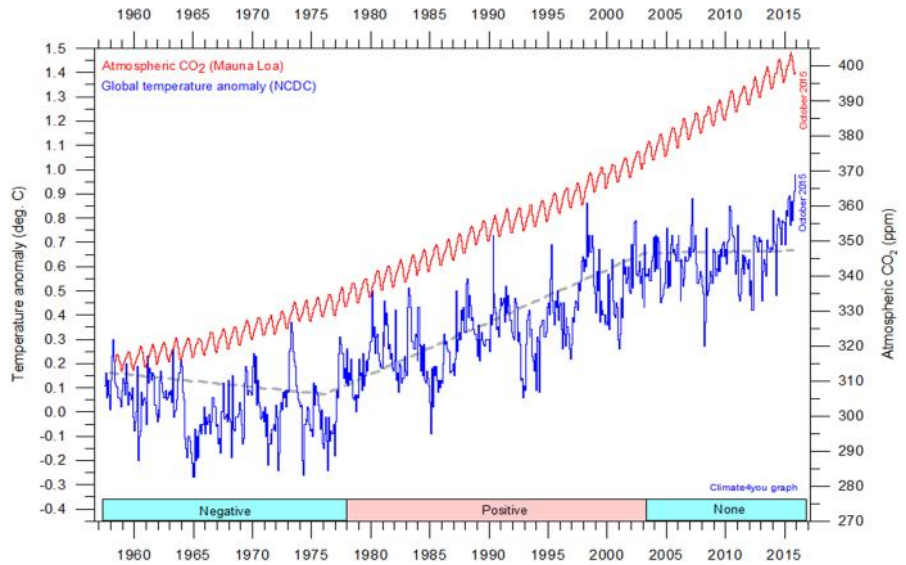


Figure 1: Atmospheric CO₂ and Global Temperature

The climate system is particularly challenging since it is known that components in the system are inherently chaotic; there are feedbacks that could potentially switch sign, and there are central processes that affect the system in a complicated, non-linear manner. These complex, chaotic, non-linear dynamics are an inherent aspect of the climate system. ...In sum, a strategy must recognise what is possible. In climate research and modelling, we should recognise that... the long-term prediction of future climate states is not possible.⁶

Ninety-five percent of the IPCC's climate models predicted more warming than was observed, which implies that their errors are based on a bias incorporated into the models themselves. None of the models predicted the complete absence of statistically significant global warming – according to the satellite data – for over 18 years since January 1997. Based on these failures, the models provide no rational basis for any predictions of future global average temperature, or any other climate-related phenomena, and therefore are not a sound basis for public policy.⁷

Anecdotal evidence (i.e. use of local weather events and news stories as evidence) is pervasive: “Anecdotal evidence, of course, is unreliable, especially when people have been led to believe that they are seeing something. But weather and climate are two different things... Among scientists, the question of global warming is much more disputed than may appear in media reports.”⁸ This type of evidence has resulted in misconceptions about the impact of climate change. Evidence such as drought in California,⁹ or the death of a pod of whales in the Atlantic from an increase in algae simply cannot be used as evidence of anthropogenic warming¹⁰ any more than those who argue that a record-breaking snow fall is evidence global warming is *not* occurring. Anecdotal evidence over-simplifies the issue. It is essentially a research study with only one sample – proving nothing about the climate. There is very limited evidence of any increasing trend in extreme weather events, such as tropical storms,¹¹ tornadoes,¹² heat waves,¹³ or droughts.¹⁴ There is also no discernable impact of CO₂ on polar ice melt¹⁵ or sea level rise.¹⁶ Attribution of weather events to climate change has only been accomplished by climate models, not actual data.

Assumes a warming earth is inherently a negative development: This assumption fails to consider the probable benefits of a higher global temperature. Some warming would allow people to farm in areas that previously were too cold to farm, increasing food production. Heat decreases the number of lives lost to extreme temperatures: cold weather kills twenty times more people than hot weather.¹⁷ Society thrived during climate optimums like the Medieval Warming Period (approximately 900 to 1200 A.D). Crop increases, population expansion, increased wealth, and less disease have been, historically, some of the benefits of warming. Cooling periods, such as the one experienced from 1300 to 1800 A.D., saw increased famines and disease, drops in food production, lower life expectancy, and heightened health problems.¹⁸

Assumes that this level of climate change is unprecedented: The earliest recorded temperature data reaches back to the 1600s for a few small areas of Europe.¹⁹ Most of the world's land and ocean surface temperature records only go back reliably to the 1900s. Temperature data from before that time is based on scientific assumptions about core ice,²⁰ sediment samples,²¹ and tree ring data,²² which are not as precise due to difficulty establishing timescale. Further, there is historic evidence of much greater shifts in global temperature than the mere 0.8°C increase experienced in the last century.²³ American climatologist Dr. Judith Curry wrote recently, "I am still waiting for a robust explanation for the substantial global warming from 1905-1945, why the globe has been warming overall for the past 400 years, and what caused the Little Ice Age. Failing to even try to understand climate change during these periods... is a recipe for fooling ourselves about what has caused the recent warming, and how the future climate will evolve."²⁴

Assumes people in developing countries are as concerned about climate change as developed countries: Around the world – in both developed and developing countries – climate change falls far below other priorities such as food, education, safety, health, and jobs, as evidenced in a recent UN survey.²⁵ According to the 2014 UN Development Report, over three billion of the world's population still earn less than \$2.50 USD per day, with basic survival being their chief priority.²⁶ The Acton Institute points out, "people worried about putting food on the table today understandably consider that to be more urgent than reducing smog next year, or minimizing global warming one hundred years from now. But when people are confident that their most urgent needs will be met, they begin allocating more of their resources to needs deemed by them less urgent – including increasingly rigorous environmental protection."²⁷

Climate Change as Settled "Science"

A recent article in *The Guardian* made the following statement: "there is a 97% consensus amongst the scientific experts and scientific research that humans are causing global warming. Let's spread the word and close the consensus gap."²⁸ The belief that there is a 97% consensus among scientists about catastrophic anthropogenic global warming originated from a number of studies. Possibly the most widely referenced of these²⁹ is a study done by John Cook, et. al. on 11,944 peer-reviewed reports from climate scientists. The study calculated that 32.6% of scientists (approx. 3,894 articles) had agreed with the statement that "humans are causing global warming,"³⁰ and that only 1% disagreed or were uncertain (approx. 119 articles). However, the study disregards any of the scientists that didn't comment on the subject (66.4% or approx. 7,931).³¹ This study does not prove that 97% of scientists believe that the earth is warming catastrophically, or that it is doing so *primarily* due to anthropogenic causes, or that we need to take immediate global action on the scale proposed by many environmentalists.

Consensus is a political value, not a scientific value. The sciences rely on empirical study, not popularity. Dr. Judith Curry writes, "With genuinely well-established scientific theories, 'consensus' is not discussed and the concept of consensus is arguably irrelevant. For example, there is no point to discussing a consensus that the Earth orbits the sun, or that the hydrogen molecule has less mass than the nitrogen molecule. While a consensus may arise surrounding a specific scientific hypothesis or theory, the existence of a consensus is not itself the evidence."³²

In his novel *That Hideous Strength*, C.S. Lewis illustrated how the modern sciences are being used the way magic has been used in a more superstitious age: to concentrate power in the hands of certain individuals. In the same way that a tribe looked unquestioningly to a witch doctor, today many scientists expect unquestioning faith in their pronouncements.³³ This is reflected in the attitudes of those who have begun calling for the silencing of critics. David Suzuki recently said that climate change 'deniers' should be thrown in prison as environmental criminals.³⁴ Elizabeth May, in a 2009 Munk debate, likened "climate change deniers" to someone in a burning theatre who cries out, "It's okay - we're fine!"³⁵

"Numbers of scientists aren't important, evidence is. As Albert Einstein reportedly said regarding the book written by dissidents to his Theory of Relativity, *One Hundred Authors Against Einstein*, 'Why 100 authors? If I were wrong, then one would have been enough.'"

- Columnist Barbara Kay

History gives ample evidence of the danger of this type of unquestioning faith. Stalinist Russia proclaimed that reason and modern science were the pinnacle of human achievement. Trofim Lysenko, an acclaimed scientist in Stalinist Russia, claimed to be able to triple and quadruple crop yields in the starving country. His theories were spread across Russia as undeniable truth. Lysenko was hailed for many years by the general public as a national hero. Scientists who questioned his methods and his science were told to be silent. Some were arrested and even executed. Propaganda embellished the success he obtained, and omitted his failures which caused famine and death in a country already ravaged by failed Soviet ideas. Following Stalin's death, his methods were entirely discredited. 'Lysenkoism' is the term now used to describe this theory.³⁶ Historical examples like this give free societies the duty to question the "consensus" of scientific theories that are propagated as "unquestionable".

Implications of Faulty Assumptions

Kenya, encouraged by the United Nations, recently committed to investing \$40 billion into its carbon dioxide reduction program.³⁷ This is money that a developing nation like Kenya cannot afford to waste; it comes with the risk of severe hardship for its poorest citizens. Encouraging developing nations to use 'clean energy solutions' to fuel their rise into the industrial age is a way for neo-colonial powers to pacify their conscience about their own industrial revolutions. Unfortunately, investing in wind and solar energy as the future of energy production is poorly calculated. Wind power and solar energy are simply too expensive and have proven too unreliable to replace fossil fuels as the primary source of energy.³⁸ Providing subsidies does not make these forms of energy more competitive; it simply means people are paying the extra cost for energy through taxes.

Economic programs like carbon dioxide taxes, cap-and-trade, and incentives for replacing fossil fuels with more expensive wind turbines and solar power will result in greater harm than good. The Copenhagen Consensus on Climate has calculated the value of these types of solutions and compared them with other possible solutions. They found that these programs are some of the most economically unsound available to governments who wish to reduce carbon dioxide production. There are better options.³⁹

The commonly-advocated options actually make the problem of world poverty worse. "Achieving the target [of the IPCC] would require a high, global CO₂ tax starting at around \$68 per ton...a tax at this level could reduce world GDP by a staggering 12.9% in 2100—the equivalent of \$40 trillion a year... for each dollar spent on the 'solution', we will avoid only about 2 cents of climate damage."⁴⁰ By allowing developing nations to invest that "green" money in infrastructure, health care, education, security, food, clean water and job creation instead of climate change mitigation, these nations could take meaningful steps away from poverty.⁴¹

Dr. Calvin Beisner points out that "many times more people are and will remain at risk of disease and death because their poverty deprives them of safe and sufficient food, water, sanitation, and pest control than even the most alarming scenarios of the... IPCC forecast... In fact, out of 24 risks to human life ranked by U.S. Interior Department analyst Indur Goklany, climate change ranked last."⁴² Ultimately, those who advocate for reallocating the spending of vast amounts of government funds to fight climate change in developing countries remove the opportunity for those countries to aggressively fight untimely deaths from disease, hunger, lack of water, poor living conditions, and much more. The current approach to internationally-imposed global climate change solutions amounts to ideological colonialism.

Our Mandate: Stewards of Creation

There is certainly reason to be concerned about the way some humans have treated the planet. It seems one cannot travel anywhere in the world – even the most remote island beaches – without coming across evidence of humanity damaging the natural environment. Fish, birds, and plants live in the beauty of creation, while garbage bags and plastic cups roll in the foam. The scars that human waste and mismanagement have left are horrible indeed, and reflective of our fallen human nature as we fail to uphold our mandate as nature's curators.

The Bible calls humanity to worship God as the creator of all things. God made us and set us up as stewards of all creation, to use it, to preserve it, and to honour it as a gift.⁴³

And God blessed them. And God said to them, "Be fruitful and multiply and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth." And God said, "Behold, I have given you every plant yielding seed that is on the face of all the earth, and every tree with seed in its fruit. You shall have them for food."⁴⁴

God continues to sustain and order the universe, and we see a reflection of His perfection in the unchanging laws of nature and in the constancy of seasonal cycles. The Heidelberg Catechism, in response to the question, "What do you understand by the providence of God?" states,

God's providence is his almighty and ever present power, whereby, as with his hand, he still upholds heaven and earth and all creatures, and so governs them that leaf and blade, rain and drought, fruitful and barren years, food and drink, health and sickness, riches and poverty, indeed, all things, come to us not by chance but by his fatherly hand.⁴⁵

We should strive to uphold the health of our planet and our fellow human beings. The following principle is very important:

Both by endowing them with his image and by placing them in authority over the earth, God gave men and women superiority and priority over all other earthly creatures. This implies that proper environmental stewardship, while it seeks to harmonize the fulfillment of the needs of all creatures, nonetheless puts human needs above non-human needs when the two are in conflict...People, alone among creatures on earth, have both the rationality and the moral capacity to exercise stewardship, to be accountable for their choices, to take responsibility for caring not only for themselves but also for other creatures. To reject human stewardship is to embrace, by default, no stewardship.⁴⁶

Conclusion & Recommendations

ARPA Canada respectfully calls on the federal and provincial governments to reconsider harmful climate change policies and to focus on the stewardship of all creation, including humanity.

1. Any policy on the climate should recognize that:
 - a. The earth's climate has, is, and always will be changing;
 - b. The global mean temperature and atmospheric CO₂ levels have historically varied significantly compared to the 20th century average;
 - c. The climate sensitivity to increasing atmospheric CO₂ is not fully understood;
 - d. There is no discernable trend in frequency and scale of extreme weather events;
 - e. Most recent IPCC climate models have over-estimated temperature trends;
 - f. Carbon dioxide reductions – through policies such as green energy subsidies, cap-and-trade and carbon dioxide tax models – are expensive, negatively impact the economy, and produce no measurable benefit for the climate in the long run;
 - g. 'Fossil fuels' provide a better health and economic solution for energy production than other fuel sources used by the world's poor such as burning dung, wood, garbage, etc.;
 - h. Reductions in energy production or increases in the cost of energy production will hinder medical, economic and social progress for the world's poorer nations. Abundant, reliable, affordable energy – at scale, instantly on demand, and unintermittent – is essential to lifting the poor out of poverty;
 - i. Until a cost-competitive (meaning, in the absence of all subsidies to any technology) energy solution is developed, it is hypocritical to require poor nations to either use unreliable expensive solar and wind-power to generate energy, or to remain as they are – in poverty using unhealthy and polluting fuels like dung, charcoal, etc.
2. Any measures or policies developed to aid poor nations should aim to build their economies and raise citizens out of poverty so that these nations will be able to develop solutions to priorities such as health care, housing, energy, clean water, and education.
3. Most importantly, government policies directed towards reducing CO₂ emissions and mitigating catastrophic anthropogenic climate change are merely symbolic and produce no environmental benefit, and thus should be ended. Environmental policy should be focussed on stewardship of Canada's land, air and waters, not changing the climate.

Respectfully Submitted,

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Detecting Techniques to Make You Believe the Message

The following are several hints to look for when reading or viewing a source. If noticed, they can be an indicator of propaganda and that the author wants you to be convinced of their point of view.

- 1) Repetition of a common word or theme
- 2) Selective use of facts that suit the author's purpose
- 3) White lies or half-truths
- 4) Rhetorical questions that don't require an answer because it is obvious
- 5) Targeting an enemy unifies a group together because it identifies an opponent
- 6) Making plenty of bold arguments rather than a calmly reasoned argument
- 7) Bandwagon approach: convincing someone else on the basis that "everyone else believes it"
- 8) Comparison: artificially inflate your own interests by comparing them to other groups
- 9) Embarrassment: linked to #8 – make the other group look foolish by presenting embarrassing stories
- 10) Humour: some use of humour

Who is Your Authority?

Religions can explain or answer	Climate Change Video	Christianity
Where do we come from?		
Are we on our own?		
What / Who is the ultimate authority?		
Where are we going?		
Who should be responsible for guiding us to truth?		
Does it rely on faith? How?		
Examples of evangelists or prophets?		

Who is Your Authority?

Religions can explain or answer	Climate Change Video	Christianity
Where do we come from?	Belief in evolution is assumed. Humans are products of change just like the rest of nature.	Genesis 1 and 2 – We were made by God. Belief in Him is assumed.
Are we on our own?	Science (as if it were one singular voice). Science is all-powerful and all-knowing.	God is the authority. He is all-powerful and all-knowing. The sciences testify to His power and work (Romans 1).
What / Who is the ultimate authority?	No, it is up to us to change the climate and ensure the survival of both nature and humanity.	Lord's Day 10 of the Heidelberg catechism and Matthew 6:26 – God cares for nature. But even more, he cares for us. He is our heavenly Father.
Where are we going?	Eternal destruction, unless we repent and change our ways quickly.	Eternal destruction, unless we repent and change our ways quickly.
Who should be responsible for guiding us to truth?	We have an individual responsibility to change our ways and make things better. International bodies (unaccountable and undemocratic) should supervise this.	We have an individual responsibility to change our ways. God ultimately guides us by His Word and Spirit.
Does it rely on faith? How?	No scientific certainty to prove the hysterical claims, despite the claim that it is a fact.	No scientific proof of the existence of God and the truth of His Word although the Bible says that creation itself testifies to its truth (Romans 1)
Examples of evangelists or prophets?	Al Gore, David Suzuki etc.	Apostle Paul, Augustine, etc.