

Alan Betts, Green Energy Times, 2021

<http://www.greenenergytimes.org>

Alan K. Betts (<http://alanbetts.com/writings>)

This is a collection of my 2021 articles in the Green Energy Times.

This series started in 2016. Many of these articles have been edited or updated from articles I wrote for the Rutland Herald, sometimes with different titles (as well as pictures). Increasingly many are new.

They blend science and opinion with a systems perspective, and encourage the reader to explore alternative and hopeful paths for their families and society. They are written so that a scientist will perceive them as accurate (although simplified); while the public can relate their tangible experience of weather and climate to the much less tangible issues of climate change, energy policy and strategies for living sustainably with the earth system.

The politically motivated attacks on climate science by the current president have sharpened my political commentary; since climate change denial will bring immense suffering to our children and life on Earth.

I believe that earth scientists have a responsibility to communicate clearly and directly to the public¹ – as we all share responsibility for the future of the Earth. We must deepen our collective understanding, so we can make a collective decision to build a resilient future.

All my articles are available from my web-site, and can be freely reused under a Creative Commons license.

This pdf document contains the 7 articles as pdfs. Web access to editions and articles can be found at <http://www.greenenergytimes.org/back-issues-download/>

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Betts, Alan, Code Red for Humanity: Climate Crisis. Green Energy Times, Oct., 2021

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¹ Betts, A. K. (2011), Communicating Climate Science. *EOS Transactions*, 92, No. 24, 14 June 2011. Available at <http://alanbetts.com/research/paper/communicating-climate-science/#abstract>

WE ARE AT A CLIMATE CROSSROADS OF OPPORTUNITY



Dr. Alan K. Betts

We are at a climate crossroads. This is a time of real opportunity, when we can let go of the past, and do what needs to be done to deal with the climate, sustainability and extinction

crises. The time for change is now, when new directions are possible.

The key questions to ask is, "Where do we want our Earth to be one year, five years and ten years from now? What must be done to get us there and are we willing to do it?"

This is critical because we are decades behind in reducing our greenhouse gas (GHG) emissions, which are driving the accelerating climate change.

We are at a crossroads for two reasons. The Trump regime has ended, and this coming year we should see the control of the Covid-19 pandemic with new vaccines. The pandemic has indirectly shown us the benefits of global reduction of greenhouse gases (GHGs) and reduced atmospheric pollutants, but we need the GHG reductions to continue at about three to four percent per year for the coming decade.

Considerable progress has been made in understanding the science of climate change. We follow in detail the rapid warming of the Arctic, the changing ocean circulations and the melting of the reflective ice that leads to increased ocean evaporation. We now understand how the Antarctic ice sheets are melted from below by warmer deeper ocean water. Icebergs then slide into the ocean contributing to

rising sea level. Underwater robots study the processes in detail.

The past year was, however, a disaster for the planet, with record tropical cyclones and hurricanes, record fires raging in the western U.S., and record temperatures continuing to melt the Arctic and the permafrost in northern Siberia. One town on the Arctic Circle reached 100°F near the summer solstice. The Gulf Coast states were hit by storm after storm, and Nicaragua was devastated by two category four hurricanes just two weeks apart. On November 1 the strongest super-typhoon ever hit the Philippines with 195-mph winds. In late November, northern Somalia, struck by the strongest cyclone of the satellite era, got a year's rainfall in 48 hours.

The Earth was close to a new record temperature in 2020. Tragically, as climate extremes are accelerating, millions of species are becoming extinct, threatening much of life on Earth. None of this news is encouraging as long as GHGs are increas-

ing. However, it also appears that if we can zero out our GHG emissions in the next decade or two, the recovery of the Earth's ecosystems will be much faster than we thought a decade ago.



A glimpse of the light: Pittsford, Vermont, December 1, 2020. Photo: Alan Betts.

Although the past two decades and especially the past four years have set us back, we have the technology to zero out our GHG emissions. This past decade there has been tremendous technical progress and falling costs in the development of solar and wind power, battery storage systems, and electric and hybrid vehicles.

However, fossil fuels have also become cheaper and their use continues, because society has been unwilling to use finan-

cial and legal strategies to push the fossil fuels out of the economy. For that reason the destruction of the Earth continues as it has for decades. We have the technical capability for transformation, but lack the political and economic will.

The political arguments will now change, but other obstacles will not.

One issue is that most of our economic system places no value on the future, so we are content to exploit and destroy our children's future to increase current profits. A related issue is that the consumer growth economy is central to our capitalism. But with nearly eight billion people on the planet, we have taken over nearly all the resources, and this exploitation is destroying the Earth's living ecosystems. Figures are uncertain, but it appears we are losing about 30% of the Earth's species each decade. A third global issue is that those with money and power control decisions as well as resources, and the poorer communities around the world suffer because they have no voice.

So what are we willing to do? We have to value the survival of the Earth and its ecosystems, and the lives of our children and grand-children more than we value the rights of the rich and powerful, and the consumer growth economy which is driving the current exploitation. We have the technical capability, and the renewable transition is vastly cheaper than trying to pay for the trillions of dollars of catastrophic damages from climate change in the next few decades. Will we really act?

Dr. Alan Betts of Atmospheric Research in Pittsford, VT is a climate scientist. Browse alanbetts.com. ♻️

THE WAYS OF THE EARTH



Dr. Alan K. Betts

There are fundamental truths about the Earth system that we must face in the next few years. The webs of deception from the last few years are receding, so we can now confront

issues that have been invisible for a long time. Much of our human world is now driven by science and technology. Science is a good frame for understanding our technological world, as well as the complexity of the living natural world. However, science is not useful for addressing social values and making moral choices.

In this void, choices are made implicitly by our (Western) society's guiding economic frame which is capitalism. New things are invented and if they can be marketed profitably, they are introduced with little control. The goal of capitalism is to increase short-term profits within a consumer growth economy. Growth is driven by advertising and by exploiting the Earth's resources as well as people, especially the poor.

Immense wealth has been created for some, and the human population has increased until our global impact exceeds the Earth's carrying capacity. Now climate and extinction crises are rapidly approaching, simply because much of our economic system is not designed to pay for future costs, especially the damaging consequences of our vast waste streams.

Consider instead the *Blue River Declaration* from October 2011.

"A truly adaptive civilization will align its ethics with the ways of the Earth. A civilization that ignores the deep constraints of its world will find itself in exactly the situation we face now, on the threshold of making the planet inhospitable to humankind and other species. The questions of our time are thus: What is our best current understanding of the nature of the world? What does that understanding tell us about how we might create a concordance between ecological and moral principles, and thus imagine an ethic that is of, rather than against, the Earth?"

"In our time, science, religious traditions, Earth's many cultures, and artistic insights are all converging on a shared understanding of the nature of the world: The Earth is our home. It will always be our only source of shelter, sustenance, and inspiration. There is no other place for us to go. It follows that the world is worthy of reverence, awe, and care."

Clearly, ten years later, U.S. society has not made this transition to align its ethics with the ways of the Earth. The recent change in the federal administration will not fix our poor social and economic understanding of the living natural world. I suggest readers view the sincere efforts to address climate change by the Biden Administration through^o the clear lens of the Blue River Declaration, a statement of

environmental ethics put forward by the Blue River Quorum.

This means facing a deeper issue. Even though we are embedded in the biosphere, very few people understand this intellectually, let alone intuitively. Reconnecting deeply with the natural world means surrendering to it, so you feel part of it on an emotional and heartfelt level. Indigenous peoples and the founder of Christianity understood this. But the concept of surrender is horrifying to 'modern' humans, because of our devotion to human power and control, and our memories of many centuries of warfare.


We have two critical tasks in this coming decade. One is to slow climate change by reducing the global atmospheric carbon budget to net-zero, which means to stop burning fossil fuels. This is turn means focusing on improving energy efficiency and implementing renewable energy resources on a much larger scale than we do currently to replace the fossil fuels. The technologies to do this have become

relatively inexpensive – far cheaper than the costs of the climate disasters ahead, if we do not make this transition. The only big obstacle -- which has been with us for decades -- is that the fossil fuel companies and their associates are heavily invested

in deceiving the public and using politicians to protect their profits as long as possible. Their recent strategy has been to reframe the issues to pretend that climate change can be solved by individuals changing their choices and behaviors, so that direct legislative mandates can be avoided.

The second difficult task is to see that the human destruction

of so much of the natural world is driving many species to extinction and replace destruction with reverence. Neither task is easy, so we all have to plan ahead. Spring is arriving and, if we look more deeply, the Earth can help.

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The Earth is our common home. Image: onecommunityglobal.org

CLIMATE CRISIS AND THE FOSSIL FUEL EMPIRE



Dr. Alan K. Betts

Australia is far away, but it has some climate lessons for us. The fire season in the dry southern summer of

2019-2020 was horrifying and bush fires scorched a record 46 million acres, ten times as much as the 2020 California fires which set a new record on our west coast. The vast Siberian fires in 2020 also burnt through a comparable 49 million acres of the Russian landscape.

Australia is a major coal exporter and the burning of coal, a fossil fuel, is accelerating climate change and amplifying wet and dry climate extremes. Russia is also a big exporter of fossil oil and gas. So, Australia and Russia are both responsible for a significant part of their self-destruction, as well as destruction elsewhere. Drought is again spreading across the western U.S. this spring, so watch carefully, since we too have a large fossil fuel industry driving climate change. In Australia just as the wildfire season ended, Covid-19 struck. Remarkably, the Australian government woke up and realized they should act preemptively, which they have not done with the fires. They immediately closed the Australian borders and ordered returning citizens to go into supervised quarantine. This saved the country from a Covid-19 disaster. The U.S. has 13 times the population of Australia, but the U.S. has had 1000 times the number of Covid-19 cases and 600 times the number of deaths. What a difference



The dreadful face of climate change shown by Australia's wildfires in 2019 and 2020. (famvin.org.)

leadership can make - if it wakes up.

The climate issues are deeper and facing the climate crisis this decade is critical. Collectively all the fossil fuel interests and their political allies deny responsibility for climate change, saying they are not responsible for the future.

The fossil fuel companies know hundreds of millions of the world's children and grandchildren will die and perhaps a third of the Earth's living species will go extinct over the next fifty years. Exxon has known this for forty years, ever since their own senior scientist, James Black, told them in 1978 how much the climate would warm from doubling CO2. He recommended they change their energy strategy


within ten years. They suppressed his report and for forty years have conspired with the rest of the industry to deceive the public and bribe politicians to prevent government legislation to regulate and phase out the fossil fuels.

This fossil fuel industry conspiracy I have called the Fossil Empire. They are driven by maximizing

current profit and avoiding responsibility for the costs of the accelerating climate disasters that will destroy so much. It is so cheap to bribe U.S. politicians. By a recent count, the 139 Republicans in Congress who publicly deny the science of climate

change were paid a total of only \$61M by the coal, oil and gas industries. For less than an average of half a million dollars each, these Republican are happy to lie in public and vote to destroy so much life on Earth. Yet the capitalist framework can easily address the climate crisis by placing a rising price on burning fossil fuels, since we have estimates of the future damage from climate change. The money raised can be used to drive a rapid transition to renewable energy.

Why does the public accept this criminal conspiracy to destroy the Earth for profit? Because they too have been deceived by a second strategy. At first, the Fossil Empire just denied climate change was real, but as climate disasters grew larger, they shifted to the deflection strategy that works so well for industry. Deflection is when you convince the public that it is better to solve a challenging problem by individual action (since it is a free country), rather than by government regulation. Covertly, selling this strategy has been an immense success. Climate activists can be encouraged to discuss and argue over whether one should travel less, buy an electric car, install solar panels, eat a vegetarian diet, have fewer children or live a simpler life. The list is endless. This strategy deflects attention from what needs to be done at the societal level to the individual level, where people can either feel they are taking useful steps, or perhaps instead feel guilty. Of course, individual choices are very important, but they will not fix the huge climate crisis, which needs both national regulation and global agreements to deal with phasing out fossil fuels.

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A protester holding a sign about the climate change denial of ExxonMobil at the protest "Our Generation, Our Choice" in Washington, D.C. on November 10, 2015. (Johnny Silvercloud)

Trust, Truth and Freedom

Dr. Alan K. Betts

Green energy businesses in the Northeast all understand that trust is central to developing and deploying new technology. Trust depends on honest, truthful and clear explanations to the public. The climate crisis requires a long transition of more than a decade.

The COVID crisis has clearly shown how trust is central to public communication. Vermont was the first state to reach the key 80% vaccination coverage for those over age 12. Governor Scott and Health Commissioner Dr. Levine and staff held weekly on-air press conferences, explaining how to manage COVID, encouraging vaccination, and outlining the steady progress towards re-opening the state. With public questioning by reporters, it was clear that the Governor and his staff were telling the truth and could be trusted.

I am stressing this because the critical value of the truth has faded during the last five years, as the webs of lies in the public arena have grown. The Fact Checker web site lists over 30,000 false or misleading claims made by the recent ex-president during his four years in office. Of course, politicians have long misrepresented the truth to justify their political agendas and please their financial sponsors – but never on this scale. Even after he was defeated in the recent election, Trump and his supporters have continued to spread lies.

Finally, the Big Lie arrived, the opposite of the truth that Trump lost the election by a large margin. The bizarre aspect is that this term was coined by Adolf Hitler in his book *Mein Kampf* (1925) to describe the use of a lie so “colossal” that no one would believe that someone “could have the impudence to distort the truth so infamously.” Trump loves big lies, so this fits him very well. He can pretend to believe in his personal Big Lie that he won the election, even though he lost. Then I realized he chose Hitler as his hero because he admires him as a dictator who used these lies to destroy democracy. Remarkably, most of the Republican Party (but not the Republican Governor of Vermont!) have abandoned the U.S. Constitution to join him in following Hitler as the party of the Big Liars. Now many Republican states are using lies about election integrity to pass bills that restrict voting by citizens whom they fear might vote for Democrats.

The web sites of lies about the vaccines for COVID-19 are another disaster for America. Trump was responsible for the deaths of a quarter of a million or more people from COVID by lying about its severity, and the need for testing and protective strategies such as wearing masks. Now web sites run by mostly Trump supporters are lying about the vaccines and encouraging others not to be immunized. This will prevent the country from recovering quickly from COVID. Tragically some of his own supporters who are trapped in this sticky web of lies are now suffering most from ongoing COVID infections.



Fake news concept, graphic illustration with letters and patterns

So, take a deep breath and join the real living world of summer. The direct teaching of the indigenous Aramaic leader Yeshua (known to us as Jesus) was crystal clear: “Step with me into the living world of the Creation and ye shall see the Truth and the Truth will set you free.” This is about joining with the Creation, not proclaiming human power over nature. This was and still is heresy to human power. Jesus was crucified and the early Christians were persecuted for centuries for not obeying human power and authority. But in 325AD the Roman Emperor Constantine (whose wife had converted to Christianity) summoned the Christian bishops to the Council of Nicaea and offered them a clever deal. Persecution will end if you destroy the holistic Aramaic gospels and drop the fundamental truth about joining with the living Earth system. Rewrite Christianity as a basic creed. The Roman Church was created based on human and Imperial power but not the Truth that sets you free.

The misuse of human power in relation to the Earth has continued and evolved for 1700 years (see Climate Change and Society at alanbetts.com). Today we have a real vivid choice. We must either accept the Truth that sets us free, or the many evil webs of lies that trap us in a desperate effort to destroy society.

As your summer vegetables grow, see the living truth grow in the sunshine and warm your heart. This spring we had a huge crop of spinach and lettuce that overwintered under glass. The winter climate has warmed a lot over the last ten years (as the Arctic is melting), and the broccoli planted in April are ready for harvesting. I chuckle because the warming Earth is ignoring the 139 politicians that have been bribed by the Fossil Empire to deny climate change. While these politicians choke on their webs of lies, every head of broccoli and bunch of peas that we grow is a reminder that the Truth is free, and tastes so good.

Many find it hard to face both truth and freedom, so the way forward for America seems fuzzy. Fortunately, the Earth backs the Truth every time, and humanity has so little power unless we back the Earth. Remember that trust, truth and freedom cannot be separated.

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August 9th, 2021 | Tags: [August 2021](#), [climate news](#) | Category: [August 2021](#), [Climate news](#)

Code Red for Humanity and the Climate Crisis

Dr. Alan Betts

The climate crisis from the burning of the fossil fuels is bringing disaster after disaster this year. We have known for decades this was coming, but mostly societies have made promises but delayed action.

The Intergovernmental Panel on Climate Change (IPCC) was established in December 1988 by the United Nations General Assembly to provide policymakers with regular scientific assessments on the current state of knowledge about climate change. The first IPCC report was released in 1992. The Fifth Assessment report (AR5) in 2014 was the basis for the Paris Agreement the following year, when 190 nations made voluntary commitments to make a determined effort to reduce the warming of the Earth to less than 2oC, and preferably less than 1.5oC. The first part of the Sixth Assessment Report was released in draft form in August 2021. It was described by the UN Secretary-General António Guterres as nothing less than “a code red for humanity. The alarm bells are deafening, and the evidence is irrefutable”. It is clear that climate change from the warming of the planet is now at a crisis point for humanity and life on earth, as nations have not followed through on their 2015 Paris commitments, and CO2 keeps rising.

The next meeting of the UN Council of Parties, COP 26, starts 31 October 2021 in Glasgow, Scotland to review progress since the 2015 Paris Agreement. These international meetings search for agreement. Former President Trump had canceled the U.S. commitment to the Paris Agreement and discouraged global progress, but President Biden rejoined and promised leadership on his first day in office. But we are so far behind in taking action. Activist Greta Thunberg is expected to come and once again say, “Why are you relying on a teenager and my generation to save the Earth when you are unwilling to keep your promises?” Extinction Rebellion will also be there to promote with compassion the voices of all those who are suffering from climate change across the globe.

An ongoing issue is that governments and the media refuse to discuss the real truth that the rich and powerful fossil fuel companies have controlled policy for decades. The Exxon senior scientist James Black identified and modeled correctly the impact of doubling CO2 on global climate in 1978, more than 40 years ago. He gave the company five to 10 years to change direction. Exxon suppressed his report and started insidious campaigns of deceit to confuse the public and politicians that are still going on. I have called this lying group of fossil fuel companies and their business colleagues the “Fossil Empire.” They pretend that it is the responsibility of the government to deal with climate change. However, in the U.S. Congress, it costs the Fossil Empire a mere \$61 million to bribe 139 Republicans to publicly lie and deny climate change. So, we have the catastrophe that the Fossil Empire is allowed to destroy much of life on Earth to protect its vast annual profits.

Let us review the science very briefly. CO2 in the atmosphere has increased by 40% in less than a century. This reduces the cooling of the Earth to space and the energy imbalance warms the oceans. More water evaporates and its greenhouse effect is a large positive feedback that triples the warming from CO2 alone. Many complex changes follow in the forests and vegetation over land, the ocean currents and the polar and high mountain snow and ice sheets. For example, the reflective Arctic Sea ice is melting, so the Arctic is warming twice as fast as the tropics. The jet stream wave patterns in the westerlies are slowing down and getting larger in amplitude as the south-to-north temperature gradient decreases. We cannot forecast these quasi-stationary patterns that drive extremes a month or two ahead.

Since evaporation goes up steeply with temperature, rainfall rates are also going up steeply. With slower moving weather systems globally, this means that heavy rain periods can now last much longer and drive extreme flooding. The extreme mid-July floods in Europe and China stunned people and many were drowned. On August 21 as Tropical Storm Henri approached, Central Park in Manhattan saw a new record rainfall rate of 1.94 inches per hour and a new daily record total of 4.45 inches — only to see this record shattered ten days later on September 1 as the remnants of Hurricane Ida crossed the Northeast. The new Central Park record is 3.15 inches per hour with an event total of eight inches. Many died in the massive flooding of NYC and New Jersey. Despite the warning of Hurricane Sandy in 2012, the unprotected subways again flooded, and people drowned in cars and basement apartments.

Some forecasts a week ahead have been simply hard to believe. Oregon, Washington and British Columbia have typical summer high temperatures in the 70s or 80s, but in late June 2021 extreme temperatures as high as 110oF occurred with a stationary ridge of high pressure. The small town of Lytton in southwest BC was warmer three days in a row (by more than 2oF) till it reached 121 oF. Imagine Death Valley temperatures in a northern forest. On the 4th day, it simply caught fire and burnt down. This extreme broke the all-Canadian temperature records set during a drought in southern Saskatchewan 80 years ago by an unimaginable 8 oF (4.6 oC). By August of this year, carbon emissions from the Siberian fires (larger than all the fires in the world combined), exceeded the annual carbon emissions from Germany. Two massive California wildfires, the Caldor and Dixie Fires, have burnt across the Sierra Nevada Mountain range as the mountain snowpack shrinks and the soil dries.



Hurricane Ida floods in Central Park. The Lake overflowed to flood the plaza around Bethesda Fountain.



Massive California Apple Fire forcing thousands of people to evacuate their homes, wildfires spreading rapidly, escaping to save their lives, destroyed silhouette, natural calamity

The truth is that the living Earth system is clearly in charge, not human power and greed. If we do not choose the Earth over the Fossil Empire, global climate change will destroy many industrial societies.

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October 15th, 2021 | Tags: [Climate Change](#), [Front page](#), [October 2021](#) | Category: [Climate Change](#), [Front Cover](#), [October 2021](#)

Limited Progress at COP 26



Major floods are a common occurrence already as a consequence of climate change, just one of the many disasters we face today. (AdobeStock_465262597)

Dr. Alan Betts

The Council of Parties COP26 took place in Glasgow from Oct 31- Nov 12. It was the first since the 2015 Paris meeting, which laid out guidelines and voluntary commitments to hold global climate warming as low as 1.5 to 2°C. Many of these commitments have not been kept, and the climate crisis from the burning of the fossil fuels has deepened in the past six years. This year has brought climate disaster after disaster. We have known for decades this was coming, but atmospheric CO₂ keep rising, as most societies make promises they do not keep.

The first part of the Sixth Assessment Report (AR6) was released in draft form in August 2021 in preparation for this COP26 meeting. It was described by the UN Secretary-General António Guterres as nothing less than “a code red for humanity. The alarm bells are deafening, and the evidence is irrefutable.”

The key issue is rapidly phasing out the burning of fossil fuels that increases long-lived CO₂ which drives the warming of the planet. This heat is stored in the oceans and increases evaporation. In turn, global water vapor, a powerful greenhouse gas (GHG) goes up and reduces global ice cover. The loss of ice cover translates to loss of cooling by reflecting sunlight. Rapid action has been postponed for decades, because our business-as-usual growth economy depends on fossil fuels, and cutting the use of fossil fuels threatens the very powerful fossil fuel empire that controls the government in the U.S., as well as global policy. In thirty years, none of the first 25 COP reports even mentioned the fossil fuels!

Methane leaking from the expanding fossil fuel infrastructure (as well as decaying waste at landfills and livestock farming) has become a growing GHG threat that now contributes about a quarter of the current warming. It is a much more powerful GHG than CO₂, but its atmospheric lifetime is much shorter, so it can be removed more rapidly if emissions are reduced. Reducing methane emissions is thus one of the few levers the world has to slow warming in the critical next decade or two and 105 countries joined the U.S.-led Global Methane Pledge, which aims to reduce methane emissions 30% by 2030. While in principle, we accelerate the transition to a net-zero carbon economy, China and Russia were absent.

Similarly 100 leaders representing over 85% of the world's forests, including the Amazon rainforest, Canada's northern boreal forest, and the Congo Basin rainforest pledged to end deforestation by 2030. The pledge is backed by almost \$20 billion in public and private funding, which seems way too little. Talking about these “cathedrals of nature and lungs of the planet” is fine rhetoric, but similar promises made in 2015 have not stopped the ongoing destruction of forests by logging, mining and conversion to agriculture.

More than 40 countries pledged to move away from coal and committed to end investment in new coal-fired power plants. In Europe, Germany, the largest coal user, has a 2030 phase-out goal and Poland and Ukraine advanced their goals of phasing out coal use to 2030 and 2035. Notably, many major economies including the United States, China, India and Japan have set no dates for ending the use of coal.

The dark reality is that there were at least 500 fossil fuel lobbyists with official access to the COP26 climate talks in Glasgow. That's more than the largest country's delegation! By lying to deceive the public and bribing politicians, they have delayed action on phasing out fossil fuels for decades. They intend to remain in control, since they can make trillions of dollars in profits from destroying the stable climate of the planet. They made sure the COP26 meeting did not discuss how much fossil fuel we need to leave in the ground to keep global climate warming below 2°C. It is considered 'progress' that the COP26 report has for the first time an evasive reference to accelerate phasing out "inefficient" subsidies for fossil fuels!

So instead of real progress on eliminating the burning of the fossil fuels, the final COP26 text calls on countries to submit more ambitious carbon-cutting plans by the end of 2022. Some progress was made on the transparent accounting of emissions.

There was a lot of talk about climate justice and distributing the long-promised \$100 billion a year to poorer countries that now experience some of the worst effects of climate change; despite the fact that they are not responsible for most emissions now or in the past. Some promises were made to fund the phase-out of coal fired power plants in developing countries and replace them with renewable power. But the rich nations (who got rich burning fossil fuels) resist any commitments for compensation to poorer countries, as they do not want to accept liability. The injustice is very clear, but most poorer countries face the climate crisis without much help, since most rich countries lack the resources to protect even their own infrastructure against climate extremes and rising sea level.

Huge numbers of citizens, protesters, as well as religious groups and scientists, who have no seat at the table, came to Glasgow to make their cases in demonstrations. Swedish activist Greta Thunberg, who has listened to so many meetings in the past few years, urged the leaders gathered for COP26 to act, and stop their "blah blah blah." There were 100,000 people at the protest march on November 6, the largest demonstration Glasgow has ever seen. The police described the demonstrators as "good-natured and in high spirits," but their impact on the meeting is unclear. They know they are the sacrificial pawns of capitalism. Their role is critical however, as it will be up to protesters and indigenous people around the world to hold governments to their promises, when they try to backslide.

Unfortunately fossil fuels are the basis of business-as-usual consumerism that is the source of wealth for the powerful, who are content to destroy the climate and much of life on Earth for trillions in profits. The "fossil fuel empire" has the power and money to bribe politicians and limit action in the U.S. Congress. Most recently it has shifted to greenwashing adverts to mislead the public. One from Exxon-Mobil cheerfully says, "Every technology we're working on helps lower our carbon footprint. Because when it comes to addressing climate change, our actions make a difference." Since their actions have been driving the climate crisis for 40 years, this is just criminal lying.

The history is very sobering, but worth reviewing. At the first Earth Summit in 1992, President George H. W. Bush signed the United Nations Framework Convention on Climate Change, which committed the world to preventing "dangerous anthropogenic interference with the climate system." However, the U.S. insisted that the convention included no timetable or specific targets for action. In 1997, President Bill Clinton signed the Kyoto Protocol which said the U.S. would cut its annual GHG emissions by seven per cent, but the Senate wouldn't ratify it, and under George W. Bush, the country withdrew from the agreement, and U.S. emissions rose. By 2009, the planet was headed for dangerous warming and President Barack Obama pledged that the U.S. was at last ready to act. Nevertheless, COP15 ended with no agreement, and at COP21 in Paris, nations were invited to just submit their own voluntary emissions targets. This meant the U.S. Senate did not have to approve a new binding agreement. These voluntary targets were not met. In reality, Obama was proud that U.S. oil production rose by 77% during his administration from advances in fracking technology. Imports fell by less so U.S. consumption increased. Then Donald Trump announced that the U.S. wouldn't honor its commitments and scrapped many environmental laws.



Now at COP26, the world cheered when the two biggest polluters, China and the U.S., agreed to cooperate on key issues, but in reality, their global power struggle may conflict with saving the Earth!

It is obvious that the climate crisis is out of control. The Earth will likely cross the upper 2°C temperature threshold in the Paris agreement, heading for 3°C. We must choose between the Earth and the fossil empire and business-as-usual capitalism. The choice is obvious: we must choose the Earth. Indigenous people have known this for thousands of years, but 'modern western society' has done everything it could to destroy the indigenous mindset. The deep shift in consciousness to back the Earth, who is in charge, is still heresy; and almost impossible for our society, obsessed with human power and greed. So, in parallel we must support the protest movements and encourage our youth to simply shut down the financial and business interests that intend to destroy both them and life on Earth for profit. In time, the Earth will win by destroying our fossil infrastructure, but simply replacing it quickly would be much wiser.

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December 12th, 2021 | Tags: [Climate Change](#), [December 2021](#), [Front page](#) | Category: [Climate Change](#), [December 2021](#), [Front Cover](#)