

Ending the climate crisis has one simple solution: Stop using fossil fuels

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As COP27 unfolds in Egypt, we are hearing about a large array of climate change solutions, ranging from [building with carbon-absorbing bamboo](#) and [using less plastic](#) to [growing more kelp](#) in the oceans to

retain its carbon stores and enhance biodiversity.

All of these ideas are important and could lead to positive environmental outcomes if successfully implemented.

However, as [climate scientists](#) we believe that they also have the potential to be dangerous distractions, drawing attention away from the three things we absolutely need to do to end the [climate crisis](#): Stop burning coal, stop burning oil and stop burning natural gas.

Ending fossil fuel use is essential to end the climate crisis, and there is no alternative.

A simple problem with a simple solution

Global warming is fundamentally a very simple problem.

Human use of [fossil fuels](#)—whether in the form of coal, oil or natural gas— releases carbon dioxide (CO₂) and other [greenhouse gases](#) into the atmosphere, making the Earth's greenhouse effect stronger and increasing the Earth's temperature.

The temperature rise, which has reached [1.25 C and counting](#) will continue unless we stop adding CO₂ to the atmosphere. The only way to achieve this is to end the use of coal, oil and natural gas.

Other solutions including [less deforestation](#), [more conserved and restored natural areas](#) and [better agricultural practices](#) could help to slow global warming. These would also have [additional benefits](#) such as strengthening biodiversity and increasing community resilience to climate impacts.

Capturing and storing carbon may also eventually play a minor role in

limiting the worst effects of climate change, but after decades of research we still don't have a cost-effective strategy to put hundreds of billions of tons of CO₂ back into the ground once the fossil fuels have been burned.

If we don't end the use of fossil fuels, all of the rest adds up to little more than branches piled on the tracks in front of a runaway train. They might slow the train temporarily, but until we get inside the engine and shut off the throttle, the train will keep accelerating.

It's a big challenge, but not a complex one

The solution to the climate crisis is not complex. But it is big.

The amount of [coal, oil and natural gas extracted from the Earth adds up to billions of tons per year](#). So, shifting from fossil fuels to improved [energy systems](#) will [require efforts far beyond](#) what has so far been allocated to solving the climate problem.

But "big" is not the same as "complex." The term "complex" implies that we don't really know what the solutions are or whether they will in fact work. Neither is true here: we know with [absolute certainty](#) that replacing fossil fuels with carbon-free energy systems would solve the climate problem. What's more, it's the only way to do so.

So far, we have failed to take the actions necessary to tackle this big, but simple, problem mainly because the problem has been made to appear complex.

Complexifying the nature of the climate problem has been a [strategy of the fossil fuel industry](#) for decades, and [fossil fuel lobbyists continue to push their agenda at COP27](#).

For many years, the argument was that the climate system is complex and that maybe greenhouse gas emissions were not a problem. Today, this same guise of complexity is being used to propagate doubt on the efficacy of real solutions and to promote actions that will take us in the wrong direction. Even now, gas representatives at COP27 are suggesting that [burning more natural gas](#) is part of the solution.

It is time we looked through this facade of complexity and get to work on the solutions that we know will work.

Fossil Fuel Non-Proliferation Treaty shows the way

We do know what needs to be done. The [Fossil Fuel Non-Proliferation Treaty](#) is a promising step in the right direction. The treaty, which was launched at the New York Climate Action Week in 2020, called, at last, to stop the expansion of new fossil fuel development and manage a just transition away from coal, oil and gas to clean energy.

But we can't stop there. We need to quickly move to shut down [fossil fuel use](#) altogether, by [replacing existing infrastructure](#) as quickly as possible with solar, wind and other non-fossil energy sources so that people can thrive in a safe climate future.

It's time to look past the distractions and focus on the simple solution to the climate crisis. We need to stop burning coal, oil and [natural gas](#). Our climate future depends on this.

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