## Pushing the same old climate policies at COP27 is simply insane

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"Insanity is doing the same thing over and over again and expecting different results." This famous quote – often misattributed to Albert Einstein – might very well become the unofficial motto of the UN <u>Climate Change Conference in Egypt</u>, the 27th session of the <u>Conference of the Parties (Cop27)</u>.

Global CO<sub>2</sub> emissions have kept increasing since the world's nations first committed to rein in climate change at the Earth Summit in Rio de Janeiro in 1992 – despite dozens of climate summits and the global climate agreements struck in Kyoto and Paris. This is the case, once again, in 2022, when we will collectively set a new emissions record. While rich countries increasingly promise draconian cuts (and then generally backtrack, as they import huge amounts of oil, gas and coal to save their citizens from energy poverty, as they have done most recently to address the current energy crisis), most of the future emissions will come from the currently poorer countries in Asia and Africa, as they power their climb out of abject poverty.

In the previous ten years, the world has focused more on remediating <u>climate change</u> than ever before. Despite this, we are not achieving anything, although no shortage of money has been

wasted. In a surprisingly honest review of climate policies, the UN revealed a "lost decade": The report found that it couldn't tell the difference between what has happened and a world that adopted no new climate policies since 2005. Consider that: all those climate summits and grandiose promises – all that expense and trouble – and no measurable difference whatsoever.

This state of affairs is unsurprising, unfortunately, because today's renewable energy sources have two big problems. First, they occupy a vast amount of space, often displacing nature: replacing a

square yard of a gas-fired power plant requires 73 square yards of solar panels, 239 square yards of on-shore wind turbines, or an astonishing 6,000 square yards of biomass. One study found that the United States would have to devote a land area four times the size of the United Kingdom to "clean power" to fulfill President Biden's promise of a <u>carbon-free economy by 2050</u>.

Second – and of even greater importance – the two renewable energy technologies favoured by the vast majority of environmental activists are intermittent or unreliable. Solar energy simply isn't produced when it is overcast or at nighttime. <u>Wind energy</u> requires a breeze. We are often told by green energy boosters that wind and solar energy are cheaper than fossil fuels. At best, that is only true when the wind is blowing, or the sun is shining. On a windless, dark night, the cost of wind and solar power rises to the infinite.

It is for such reasons that it is deeply misleading (although highly convenient) to compare the energy costs of wind or <u>solar</u> to fossil fuels only when it is windy and sunny. It is also important to note that since all solar energy is sold at essentially the same time (when the sun is up and shining), its value drops dramatically. When solar reaches 30% market share in California, as one study revealed, it loses two-thirds of its value.

Furthermore: because modern societies require 24 hours of nonstop power, backup is not optional – and that means reliance on fossil fuels, when there's no sun or wind. As more solar and wind is introduced, moreover, fossil fuel backups become ever more expensive as they offer their services for fewer hours, to produce the necessary return on capital. And what of batteries? Globally, we have battery storage with the current capacity to store one minute and 15 seconds of the world's electricity consumption. And that

problem will not be ameliorated soon – even by 2030, global batteries will only cover less than 11 minutes of the global electricity consumption.

## The scale of the challenge

All of this shows just the problems with moving *electricity* away from fossil fuel. When Biden promises ambitiously that all of America's electricity will come from renewable sources by 2035, he is addressing the comparatively simple part of the climate challenge. Electricity constitutes just 19% of total energy use. We're far further behind in developing solutions for agriculture, manufacturing, construction, and transportation. Of these, the latter is most often discussed by environmentalists and virtue-signaling politicians, who insist that a solution is already at hand: <u>electric vehicles</u>. Despite massive subsidies, however, just 1.4% of cars globally are electric, and that number is not going up quickly. The Biden Administration itself estimates that battery-electric cars will make up less than 10 percent of total US automobile stock – by 2050.

The scenario for the entire world is that less than one-fifth of all global cars will be battery-electric by 2050. We should remember, as well, that we do not yet have electric tractors, or heavy trucks, or airplanes, or ships – and that means that all the fossil fuel infrastructure that allows such machinery to operate will have to stay intact for our supply chains to continue their necessary operations.

And our current turbo-charge on electric cars will have very little impact on climate. The International Energy Agency estimates that the world would produce 231 million fewer tons of C02 if we achieve all our ambitious stated transport electrification targets in this decade. This reduction will lower global temperatures by one-ten thousandth of a degree Celsius (0.0001°C) by the end of the century, according to the UN's own Climate Panel's model.

Tackling climate change with current technology is essentially impossible. This means that climate policy-makers tinker at the margins, offering deceptive solutions, and morally grandstanding. This pattern has repeated for three decades. Most of the promises made in Rio de Janeiro in 1992 and in Kyoto in 1997 were disregarded. A 2018 study found that only 17 of the 157 countries that pledged emissions cuts in Paris passed laws mandating the

required action. Which nations? Algeria, Canada, Costa Rica, Ethiopia, Guatemala, Indonesia, Japan, North Macedonia, Malaysia, Mexico, Montenegro, Norway, Papua New Guinea, Peru, Samoa, Singapore, and Tonga. These are not the nations that will change global emissions. Even if every country did everything promised in the original Paris agreement, the emission cuts by 2030 would constitute just 1% of what is necessary to keep temperature rising under the 2°C target.

Failure, however, has not made politicians or the people they serve

more careful and or more adamant about searching for better solutions. Instead, they (we) have doubled down, making evermore ludicrous but emotionally attractive pledges, despite zero chance of either their implementation or their success if implemented. Attempting to implement the much-heralded and ofttrumpeted vision of a zero C02-emission world – whether by 2035 or 2050 – would be so ruinously expensive that extensive giletsjaunes-style riots are certain long before the "goal" is reached.

The New Zealand government promised carbon neutrality by 2050. Then they commissioned a report to estimate the cost of doing so (a sequence of affairs that should have perhaps been reversed). The results? Even if implemented efficiently, the cost by 2050 will be 16% of total annual Gross Domestic Product (a figure higher than that of the entire current annual national budget). And that cost will be incurred every year. That is nothing but a pathway to less prosperity, and treading down such pathways will produce a host of secondary consequences, including serious civil unrest, that will not be in the least beneficial to the planet.

The renowned scientific journal *Nature* recently published a study indicating that getting 80% of the way to Biden's promised climate utopia by mid-century would cost every American more than \$5000 per year – the same Americans who are willing to pay only a fraction of that (\$177 per year, according to research published by the Yale Program on Climate Change Communication in the journal Environmental Research Letters). Getting to 100% would more than double that cost. It's no surprise that hypothetically greenminded politicians evince little enthusiasm for investigating the true costs of their preposterous and self-serving promises.

## A different approach

If we do care about fixing this challenge, we need to change course. Pretending that the proper technological answer currently exists, and is not being implemented because we lack conviction and willpower is reckless and misleading. Worse, it stops us from pursuing real solutions to the many problems that confront us – only one of which is climate change.

Dozens of the world's top climate economists and three Nobel Laureates in Economics recently evaluated a whole gamut of climate solutions for the think tank Copenhagen Consensus. If we continued to do what the <u>EU</u> has been doing – cutting carbon with a mix of market and planning diktats – means spending one pound to avoid a mere three pence of long-term climate damage. That's partly because cutting  $CO_2$  output in the rich and already efficiently-producing EU is impractically expensive, and partly because EU climate policies are much more inefficient than necessary (the EU prefers using wind and solar, for example, to cut a ton of  $CO_2$ , over the more efficient option of switching from coal to natural gas).

The Nobel laureates and climate economists instead determined that investment in green innovation comprised the best long-term investment. Why? Consider how the world worried over starvation in the 1960-70s. If we had approached that problem like we are approaching climate remediation, we would have required the rich to eat less, while serving their leftovers to the poor. That would have failed – as our current approaches will fail – disastrously. What worked instead? The Green Revolution: the innovative development of higher-yielding crops. We thereby increased world grain production by 250% between 1950 and 1984, raising the calorie intake of the world's poorest people and reducing the incidence of serious famines.

Innovative thinkers tackled the problem head-on, instead of tinkering around the edges. <u>Innovation</u> meant producing more with less, instead of requiring people to make do, with less. Would-be and even genuinely looming catastrophes have been continually pushed aside throughout human history because of innovation and technological development. Innovation gave us security and prosperity, and continues to drive the growth and the increased efficiency of the world's largest economies.

In general, unfortunately, investment in long-term innovation is

underfunded because it is hard for private investors to capture benefits. In areas where long-term innovation on the private front can be underfunded (because of difficulties of monetising benefits in a sufficiently short time frame), public investment and support is often warranted. A recent example – and a stellar success on the climate innovation front? The ten-year \$10 billion US public investment in shale gas, which originated under <u>President George</u> <u>W. Bush</u>. Remarkably, this was not planned as part of the policy of climate change remediation. Nonetheless, it led the way for a production surge (with all the attendant economic benefits, particularly for the poor) that allowed natural gas to become cheaper than the dirtier coal it partially replaced. Energy derived from natural gas produces approximately half the  $CO_2$  of coal. The consequence? The US has the best record of C02 emission reduction of any country in the past decade – and simultaneously reduced its reliance on foreign suppliers of uncertain reliability and cost.

## Investing in innovation

Everyone, in principle, agrees that we should be spending much more on R&D. However, the fraction of rich countries' GDP actually invested into R&D has halved since the 1980s. Why? Putting up inefficient solar panels and wind turbines offers the opportunity for good photo ops, and allows those who lead to convince us of their dedication to action, while funding researchers requires a more subtle and mature understanding and approach. We might remember, however, when considering such things, that our economic stability and opportunity is now at serious risk, and we are simultaneously not currently doing the planet any favors.

According to the Copenhagen Consensus Nobel Laureates, we should increase our current spending five-fold, to \$100 billion per year. This doesn't mean that in total we should spend more. We already devote \$600 billion per year to financing ineffective climate remediation strategies. We could instead take a mere sixth of that poorly spent money and direct it toward the most effective means of addressing our problems.

World leaders on the sidelines at Paris in 2015 joined billionaire philanthropists in promising to double green energy R&D over a five-year period. This so-called "Mission Innovation" did not materialise. Spending, as a percentage of GDP, hardly moved since

then.

A genuine innovation-led response would require the consideration of multiple solutions. We should improve today's technologies rather than erecting currently inefficient turbines and solar panels. We should devote more attention to <u>nuclear fission</u> (perhaps in the form of modular reactors), and continue to explore fusion, hydrogen generation from water, and more. The geneticist who spearheaded development of the first draft sequence of the human genome – a technological tour-de-force, completed far earlier and at less cost than originally estimated – makes the case for research into algae that produces oil, grown on the ocean surface. Because such algae simply converts sunlight and  $CO_2$  to oil, when producing it, burning it would be  $CO_2$ -free. Oil algae are far from cost-effective now, but researching this and many other solutions is not only inexpensive but offers our best opportunity to find real breakthrough technologies.

If we innovate the price of green energy down below fossil fuels, everyone will switch. This would be a far better solution, particularly for the poor, than increasing the cost of fossil fuel to the point of general penury to disincentivise use. The Copenhagen Consensus experts calculated returns from green energy R&D at eleven pounds for every pound invested – hundreds of times more effective than current climate policies.

Finding the breakthroughs that will power the rest of the 21st century could require a decade, or it could take four. But no other genuine solutions beckon, and we have already had three decades of spectacular failure pursuing the policies that are currently in place. We know that the world leaders gathered at COP27 won't solve the problems that beset us with the same empty promises offered twenty-six times previously. Are we doing the same thing yet again? Remember the definition of insanity...

But innovation beckons, as it has so reliably in the past. We have better options, and ignore them at the cost of our economy, our opportunity, and the environment.

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