Vandana Shiva: What's Missing From Climate Debate

Corporations are exploiting the climate crisis to push costly, unproven and often dangerous technological fixes, but the real source of the crisis is really a symptom of the broader ecological crisis being perpetuated by an extractivist and profit-driven system.

By Navdanya International

Vandana Shiva, Ph.D.:

> "The destabilisation of the Earth's climate systems is the consequence of violating the ecological processes and cycles of the earth, violating the Rights of the Earth, Rights of Indigenous People, and the Rights of Future Generations.
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> "Fossil fuels have driven how we grow our food and produce our clothing over the past century. Energy slaves have been used to displace the creative work of farmers who care for the land and craftspeople in creating beauty and culture.
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> "A fossil-fuel-free food system is a health imperative for the planet and the human community.
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> "The polluters are trying to use the crisis they have created, to make profits from pollution through tricks like 'net-zero,' increase the violence against the planet with geoengineering, and continue the violence against the earth and our bodies through ultraprocessed lab food.
>
> "Our ecological duty is to stop the harm, and prevent the greenwashing to regenerate the Living Earth, her ecosystems, our Seed Freedom and Food Freedom through Earth Democracy."

Climate change is really ecological collapse

Time is critically running out for climate action. In a year when oil and gas companies will have hit historic record-high profits, with the sector set to close out the year at $4 trillion, and unprecedented flooding in Pakistan, Puerto Rico and Nigeria, the world is no closer to reducing climate emissions or remedying ecological destruction.

Many have now even begun to question the point of the yearly Conference of the Parties meetings, as according to the United Nations Environment Programme, even if current climate pledges are met in full, we would still see global heat rise above the 2.5 degrees Celsius (36.5 degrees Fahrenheit) threshold, leading us into further unprecedented climate chaos.

The Potsdam Institute is already reporting the rupturing of five critical planetary boundaries, and this year has seen an unprecedented rise in global emissions.

The climate emergency we are facing is part of several interlocking crises involving our health, our soils, ecosystems, our society and the biodiversity on the planet. It is a symptom of the broader ecological crisis being perpetuated by an extractivist and profit-driven system.

In other words, the current climate chaos currently being experienced all over the world is a symptom of a larger ecological collapse. The Earth's climate is composed and intricately interconnected with many overlapping planetary systems and cycles.

It is not just the disruption of carbon cycles, but the disruption and rupture of many of the Earth's cycles such as the nitrogen cycle, water cycle, carbon cycle, air flow cycles and cycles of biodiverse life.

Individual ecosystems have been altered to such an extent that it is now causing massive deregulation of Earth's cycles. All of these cycles are interconnected and ensure the maintenance of ecosystems and hence, climate health.

We cannot talk about climate change without addressing industrial food systems

The way we produce, consume, distribute food has a huge impact on the health of the planet, and hence climate. Food systems tie into all of the mentioned planetary cycles. So we cannot talk about climate change, without talking about the food system, as they are one of the main ways humans interact and affect Earth's cycles.

Industrial agriculture and globalization have been one of the main reasons the Earth's cycles have ruptured. Due to land use change, agrochemical pollution, monocultures, genetic ecocide, plastic contamination, fossil fuel use, long-distance transportation it is now one of the largest causes of planetary destruction.

It has caused ecocide and biodiversity loss, soil desertification, erosion and contamination. It has caused mass water pollution all throughout the water cycle, greenhouse gas emissions and a rupture or imbalance of the nitrogen, water, methane and carbon cycle. All of which means the disruption of the climate systems.

Together, these ecologically destructive practices account for 44% to 57% of all greenhouse gas emissions, making the global food system one of the main culprits behind climate change and environmental degradation.

For example, agribusiness' continuous invasion of forests and other vital ecosystems has made the industry responsible for 70% to 90% of global deforestation.

Today we are also witnessing the collapse of biodiversity, with the sixth mass extinction.

According to a report by the United Nations Environment Programme, Chatham House and Compassion in World Farming, "Food system impacts on biodiversity loss," the industrial global food system is the primary driver of global biodiversity loss, threatening 86% of species now at risk of extinction.

Although there have been repeated calls for action on this devastating fact, nothing has been done because the practices that have caused this ecocide have yet to be addressed.

The same is true for the destruction of soils. Due to agrochemicals such as artificial fertilizers and agrotoxins, the life of the soil has been destroyed. Artificial fertilizers and pesticides are proven to kill the diverse microbiota of the soil, causing a lack of ability to naturally convert nitrogen and carbon.

Soil with no life also has no water-holding capacity and no fertility to support animal or plant life. Soils' lack of water-holding capacity and lack of carbon, or organic matter, is one of the reasons mass floods, droughts and forest fires are becoming more extreme. If the interconnection of these issues is not also addressed, these crises will only continue to get worse.

The dangers of reductionist narratives

In another year of climate in-action, we are actually seeing a rallying behind the false solutions that just maintain business-as-usual, or even work to consolidate industrial models. Corporations are now interested in using the necessary urgency for climate policy to their advantage with a series of false, greenwashed solutions.

The solutions proposed in response to the imminent climate crisis are costly, unproven and often dangerous technological fixes that are geared toward replacing the very natural processes they have been

destroying.

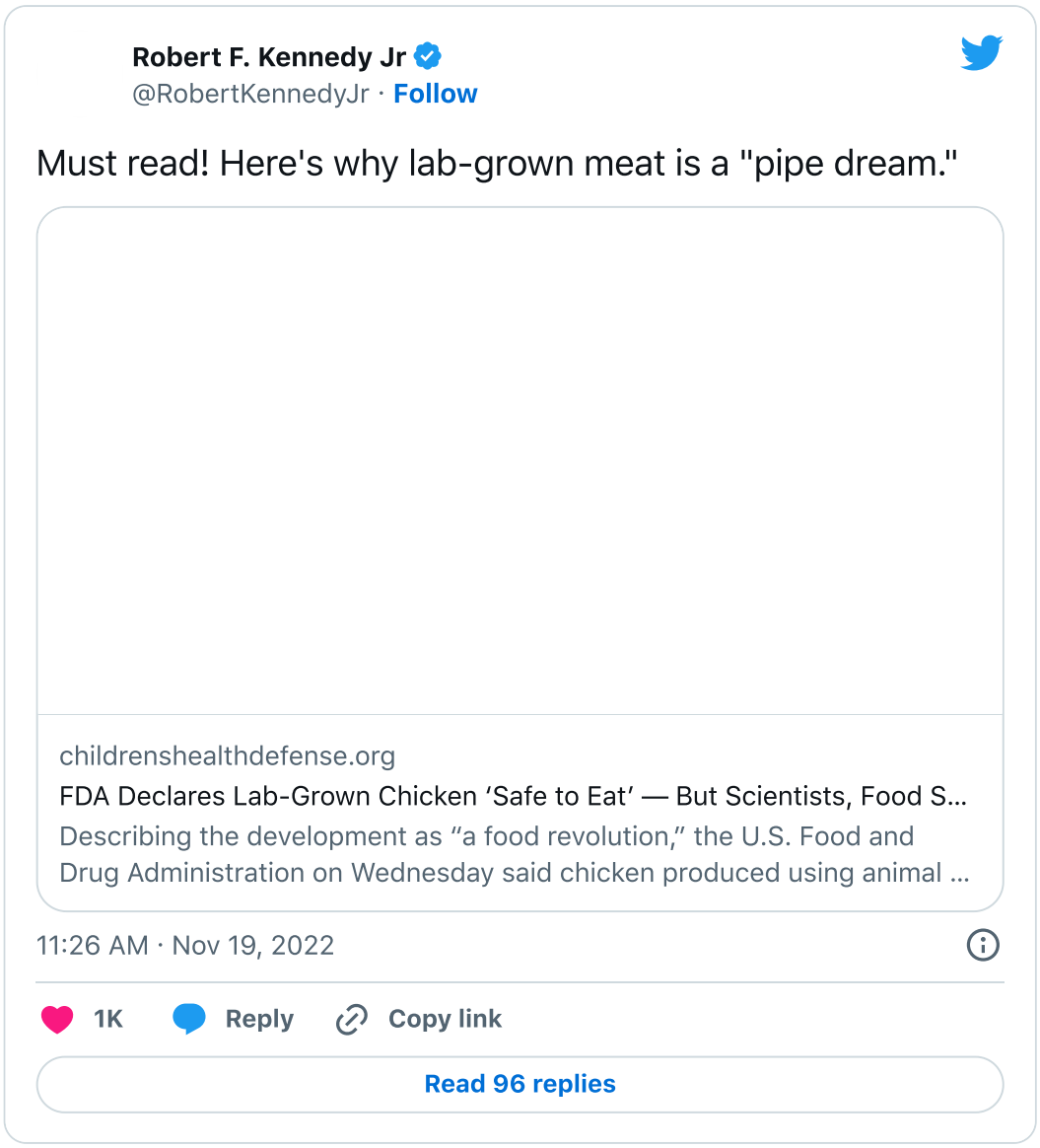
They constitute an imposition of technological innovations such as artificially grown lab food, gene editing, carbon capture, carbon credits and the financialization of nature.

But the real agenda behind these false solutions is the final consolidation of the industrial food system through a totally digitally controlled agricultural supply chain, lab-made foods and the financialization of the last natural frontiers through biodiversity and ecosystem services financial credits.

It is the final push for food without farmers, and farming without the Earth.

Synthetic fake foods

In order to erase the last remaining small farmers, corporate-sponsored narratives are now pushing for the reduction of complex ecological collapse into dualistic narratives around plant versus animal, instead of addressing the larger crisis of how current industrial practices are destroying Earth's ecosystems.



In these false dichotomies animals are now being blamed, instead of industrial systems as a whole, for the food system's impact on climate.

The integral, complex and interconnected husbandry of animals in many traditional cultures around the world is now being lumped in with industrial animal production, effectively erasing the importance of these

traditional food and cultivation cultures.

In these false climate narratives, animals have also been reduced to mere products for protein, that can simply be replaced by more efficient technologies such as lab-engineered products.

This reduction effectively ignores the multidimensional and essential roles animals can fill in diverse agroecosystems. It thus completely ignores our relationship with nature and creates a rift separating humans from nature and food from life.

While it is a fact that all industrial production systems, whether for plants or animals, are heavily responsible for ecological collapse, agroecological and small-scale systems are not one and the same.

Proponents of fake food claim that it provides a real solution to climate change, and environmental degradation, due to it not needing intensive water and land resources, while also addressing concerns over animal greenhouse gas emissions and animal welfare in the admonished meat industry.

However, the true purpose could not be further away from ending climate change or world hunger.

Instead, these ultra-processed "plant-based" foods rely on dangerous technical innovations such as synthetic biology, CRISPR-Cas9 gene manipulation and new GMOs. These techniques involve reconfiguring the genetic material of an organism to create something entirely new, and not found in nature.

Some companies are also investing in cell-based meat, grown from real animal cells. The result is a whole range of lab-grown fake meats, eggs, cheese and dairy products swarming the market to ultimately replace animal products and alter modern diets.

These technologies represent a new wave of the patenting logic that was first applied to seeds during the Green Revolution.

By being able to now fully control the entire food supply chain, from the genetic manipulation of these fake foods to their lab production, to the distribution chains already controlled by big agribusiness.

The Earth and small farmers will no longer be needed, with the exception of the mass monocultures already controlled by agribusiness.

'Nature-based solutions'

Nature-based solutions are a broad concept increasingly used by corporations and world leaders to promote a range of carbon-offsetting schemes for climate and biodiversity protection that is firmly grounded in discredited market mechanisms and corporate greenwashing.

It is a concept that seeks to instrumentalize nature, by using the transactional logic of market mechanisms, all while externalizing ecological destruction and perpetuating neocolonial dispossession of indigenous populations, peasants and many other communities through carbon offset projects.

All in order to continue business as usual, without fundamentally addressing the root causes of the climate crisis.

If left unchecked, these tactics will continue to exacerbate the crises by bolstering inequality and corporate power. "Net zero" and "carbon capture" are two solutions advocated by multinationals and billionaires that fall under this umbrella.

In order to push for these false solutions we have seen a reduction of whole ecological collapse to just the issue of carbon emissions. In both international and everyday discourse, carbon emissions are seen as the sole vector for climate change. This allows for the idea of "net zero" to seem like a viable solution.

In essence, the idea behind “net zero” is to balance out greenhouse gas emissions with removals of greenhouse gasses until we are left with zero. In order to reach zero, the amount of CO2 added cannot be more than the amount taken away from the atmosphere over the same period of time.

This equation is problematic in its own right because it implies that companies can achieve net zero by investing in carbon offsetting schemes.

However, net zero will not lead to real reductions in carbon emissions for several reasons. First, net zero focuses only on emissions flows and as such fails to consider the cumulative nature of carbon.

Carbon dioxide remains in the atmosphere for hundreds to thousands of years, unless it is stored elsewhere, meaning that past, present and future emissions will have a cumulative impact on both global warming and ocean acidification.

Second, net zero is based on a lie because offsets do not actually reduce atmospheric concentrations of CO2. CO2 levels will thus continue to rise at an alarming pace if they are not effectively sequestered by the soils and oceans.

This means that in order to understand how to slow down, adapt and heal climate chaos, it is fundamental to understand how each of the planetary cycles is being ruptured and thrown off balance, and not just attempt to “solve” carbon emissions.

If we continue to reduce the climate narrative to simply an issue of reducing carbon emissions to “net zero,” without understanding and addressing the other aspects of greater ecological collapse, climate chaos will only continue.

In reality, “net zero” is nothing more than an elaborate corporate greenwashing scheme that grants polluting companies the right to expand their activities and continue polluting as usual, as long as they can claim to sequester carbon elsewhere.

By offsetting their emissions through planting monoculture tree plantations, companies will thus continue to provoke land grabbing and displacement of communities, human rights violations, water scarcity and further biodiversity loss.

The solutions exposed above are a product of a mechanistic worldview that sees nature as dead and inert matter that can be engineered and manipulated to fit our needs and bolster corporate greed.

By placing technological innovations on a pedestal and branding them as the only possible option for solving the world’s many crises, the big corporations are setting their own agenda to further cement their control, while wasting precious time.

In so doing, they are obscuring the real root causes of the crises we face and bringing us down a dangerous path of further unprecedented crisis.

This reluctance to address systemic issues is by no means accidental, rather, it is a deliberate attempt by giant multinationals to maintain their control by perpetuating the same power structures that created our current crises, without taking responsibility for the large-scale pollution and environmental degradation they have caused.

The answers are right in front of us

The ways to rebalance, regenerate and heal our ecosystems are already known to us. The ways to adapt are also in our hands, and in the support we give to our local food communities who aim to work alongside nature to restore its biodiversity and rejuvenate its natural cycles.

Climate resilience and adaptation can only be developed by local communities actively healing and working from the disruptions present in their local ecosystems. This means agroecological systems must also be developed by local communities to regenerate local ecosystems, and foster biodiversity.

Biodiversity of plants, animals and microorganisms is key to providing the stability and balance necessary to create resilient agroecosystems in the face of climate change.

The same food and agriculture systems that conserve and rejuvenate biodiversity also mitigate climate change and contribute to health and increased livelihoods through regenerative, living economies. Healthy agroecosystems come from and work with healthy greater ecosystems, and vice-versa.

Healthy agroecosystems also ensure the maintenance of a healthy greater ecosystem by working in tandem and regenerating Earth's cycles on a micro scale.

Increasing genetic diversity, as well as crop diversification, is central to the agroecological approach to farming to reduce vulnerability to floods, droughts and other unpredictable weather extremes. This is why seeds and the capacity to save, breed and preserve through planting must remain in the hands of small farmers.

Only then can crop varieties adapt to our changing planet. These communities are at the forefront of climate and ecological chaos, and they are also the ones building resilience to it.

Climate policies hence must address not just greenhouse gas emissions, but also the full scope of harmful practices perpetrated by the industrial agriculture system and their false solutions. As well as actively support the regenerative and adaptive work being done by local food communities at the forefront of climate chaos.

A transition to organic, regenerative farming should be the top priority, to move away from the industrial food system and embrace a different vision of a regenerative food system.

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The views and opinions expressed in this article are those of the authors and do not necessarily reflect the views of Children's Health Defense.

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Navdanya International

Navdanya International champions sustainable agriculture, biodiversity, food sovereignty and the rights of small farmers around the world.