

# WE NEED A FOREST-LED COP27

Relevant for: Environment | Topic: Environmental Conservation, Sustainable Development, and EIA

The Pobitora Wildlife Sanctuary in Assam. | Photo Credit: Ritu Raj Konwar

In September, a study published in the journal *Science* said [earth may have already passed through five dangerous tipping points](#) due to the 1.1°C of global heating caused by humanity to date.

Calls for developing and transferring technologies to support action on climate change have become louder worldwide. Technology has become a survival strategy for our species, but the degree of techno-determinism that exists in the strategy to reverse climate change is alarming. Technology alone is unprepared to deal with the challenge, which requires a societal overhaul and a zero emission strategy.

History is on the side of technological innovation. Norman Borlaug, for instance, ushered in the Green Revolution, which fed billions of people and increased yields. But we may need a few million climate Borlaugs to tackle the problems staring at us.

COP26 at Glasgow also fuelled technological optimism. There was an observation that every technological solution discussed at COP26 depends on just three resources: nelectricity (non-emitting electricity generated by hydropower, renewables or nuclear fission), carbon capture and storage (CCS) or biomass. The total demand for those resources required by the plans discussed at COP26 cannot be met by 2050.

We currently have 4kWh/day of nelectricity per person. But the COP26 plans require 32 (range 16-48). We currently have 6kg of CCS per person per year, but the COP26 plans require 3,600 (range 1,400-5,700). We eat 100kg plant-based food per person each year, but producing enough bio-kerosene to fly at today's levels requires 200kg of additional harvest. There is no possibility that our supplies of these will be near the levels required by the plans discussed at COP26.

In 2003, Ken Caldeira at the Carnegie Institution found that the world would need a nuclear plant's worth of clean-energy capacity every day between 2000 and 2050 to avoid catastrophic climate change. In 2018, MIT Technology Review reported that at the given rate, the world will take nearly 400 years to transform the energy system.

Tech-centric mitigation conversations leave forest economies and subjects such as conservation and forests, which are the best carbon removal instruments, to the ideological fringes of climate conversation. Climate action requires the same amount of investment in conservation as we see in shiny new technology transfers.

Editorial | [Sticking to commitments: On India's climate change goals](#)

While there was the deforestation-ending climate commitment at COP26, the nature of the pledge was vague. Countries may easily attempt to achieve their 'net zero deforestation goals' through monoculture farming. But this won't be of much help: scientists, in a commentary in *Nature*, have stated that naturally preserved forests are 40% more effective than planted ones.

Our climate crisis is intertwined with other complex issues. This means that we must insist on multi-pronged, interconnected climate solutions. Forests shine here too. Nothing exemplifies this

more than the intersection of the climate change crisis and the biodiversity crisis. Forests, which are home to 80% of terrestrial wildlife, are at this intersection.

Forests absorb a net 7.6 billion metric tonnes of CO<sub>2</sub> a year. A new study has found that their biophysical aspects have a tendency to cool the earth by an additional 0.5%. The conservation of forests, along with other nature-based solutions, can provide up to 37% of the emissions reductions needed to tackle climate change. The Dasgupta Review-Independent Review on the Economics of Biodiversity reports that green infrastructure (salt marshes and mangroves) are 2-5 times cheaper than grey infrastructure (breakwaters).

Another study estimated that the annual gross carbon emissions from tropical tree cover loss between 2015 and 2017 was equivalent to 4.8 billion tonnes. This causes more emissions each year than 85 million cars do in their lifetime. In 2019, approximately 34% of total net anthropogenic greenhouse gas emissions came from the energy supply sector, 24% from industry, 22% from agriculture, forestry and other land use, 15% from transport and 6% from buildings.

The IPCC Land Report estimates that land serves as a large CO<sub>2</sub> sink. There is a growing body of evidence that a large proportion of the required removals could be achieved by conserving natural sinks, improving biodiversity protection, and restoring ecosystems. Preserving earth's cyclical processes by protecting terrestrial ecosystems and natural sinks and transformative agricultural practices under the leadership of indigenous people and local communities is a far more equitable and cost-effective way of tackling the climate crisis than it is being done now.

We need to realise that the climate crisis is just a symptom; our real problem is that human consumption and activity have exceeded the regenerative capacity of our planet. Technology, at best, can assist us, not lead us, on the pathway to a sustainable, regenerative and equitable world.

[Our code of editorial values](#)

**END**

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com