

Are carbon credits the correct answer to climate change?

13 June 2022

Climate Change and the global rising temperature is a dire and imminent situation that we now face. Various think tanks and researchers across the globe have charted out probable near-term, mid-term and long-term effects of climate change, we are yet to see proportionate steps to be undertaken by the global community. As time passes by, it is also abundantly clear that traditional mitigation methods which find their origin in the 3Rs ideology are not sufficient anymore. A regenerative approach (I'm attaching further reading materials across the article for the inquisitive minds) has become our only hope to bring the average global temperatures down to pre-industrial levels.

The Special Report of Global Warming published by the Intergovernmental Panel on Climate Change (IPCC) in 2018 prepared by ninety-one authors across forty countries identified 1.5 degrees as the tipping point for irreversible effects on the environment, taking the ecosystem into a feedback loop of naturally acceleration of global temperatures which would, even optimistically, exponentially increase the number of efforts required to maintain habitability for humans. We already have crossed the 1-degree Celsius mark and at COP26 it became evident that the discussions have been pushed to 2 degrees Celsius by 2030. Climate Action Tracker released a report which analysed that even if the country pledges at COP26 are met by 2030, the global temperature is going to reach 2.4 degrees Celsius.

The AR5 Synthesis Report by IPCC released back in 2014 had already delineated global threats if the average global temperature goes beyond 2 degrees Celsius including abrupt environmental effects like threatened systems, extreme weather events, global aggregate impacts and large-scale singular events.

2030 is Eight Years Away

Not to be ominous but we're in an all-hands-on-deck situation. Carbon Dioxide Removal (CDR) from the atmosphere is now of the utmost importance and needs to be undertaken with all means necessary. Ingenious technologies of Direct Air Capture and Mineralisation amongst others are being developed to capture and permanently store carbon from the atmosphere. These technologies are still in nascent stages and are yet to be made economical or scalable. Till the time, such technologies could bring about substantial change, we need to keep making progress towards the goal and we, therefore, need to deploy the old-timey technology which has been tried and proven to effectively sequester carbon, is much cheaper and can be technically scalable as well – Trees.

My host organisation, Alaap, is engaged in developing Miyawaki-style Dense Native Forests across India to tackle the same. To enable us to understand more about the Miyawaki method, let's try to understand the existing afforestation efforts being undertaken.

A natural virgin forest is one that has existed in the region over centuries and has its own self-sustaining biosphere and flourishes without human intervention, this is achieved by closed-loop systems where the various organisms support each other taking weather changes into consideration. While such forests are being reduced for industrial needs. Governments, large corporations and community leaders are proactively stepping up to grow trees. On a small scale, it could involve the neighbourhood park and on a large scale, it could include the creation of monoculture forests such as pine tree forests. These trees often don't sequester large amounts of carbon dioxide compared to native trees or become self-sustaining as the species are often not native to the region or are not able to create a closed-loop ecosystem. Monoculture forest trees are planted at large distances and occupy large parcels of arable land. A popular practice is to cut these trees down after a decade or so for timber, this enables investors to record carbon credit for a few years and then earn from timber.

I believe we as a society yet haven't changed our outlook to solving our problems, we still look through the same lenses which we had during the industrial revolution. The industrial revolution helped solve the crisis which was being faced at that time, production was not able to catch up to population growth. We needed a technology boom, which happened dare I say, callously ignoring other factors of life. It took decades for us to rally behind the environment and its degradation which was an effect of the industrial revolution. Now the crisis is carbon emissions and we're just trying to solve it.

We're not yet approaching it from a systems perspective. It can lead us into another cycle where a few decades down we realise another critical problem extenuated due to carbon removal. We already are in discussions where other minerals are exhausting.

All solutions will be complex and dare I say messy but we need to look at a larger interconnected solution. Even the Miyawaki Method is not perfect and is still being researched to prove its merits. The carbon storage capacities are yet to be defined; carbon measurement processes of monoculture forests are still being used in such forests but it takes a holistic approach to forestry and its permanence, therefore, is very well proven and documented. It's just time while the MRVs catch up. Now, that we have a perspective on forestry practices, let's delve a little more into what Miyawaki Method is. It's an approach to forestry where we create a dense native forest as per the local context in a time span of 15-20 years which would naturally take about two centuries to grow. The process is not a standard operating procedure but a framework that helps us in identifying and developing the natural character of the forest. Forests developed in different climatic zones through this Method therefore may not have any similarity between them.

These diverse ecosystems enable Miyawaki Forests in comparison to monoculture forests are 40 times denser, grow 10 times quicker and are 100 times more diverse. These forests also have multiple co-benefits, they help in groundwater retention, attract birds and insects, produce native fruits and improve air quality. Such solutions where we work in tandem with nature need to be sought after. At Alaap, we have updated an old quote- Let nature do her own thing – to help nature do her own exponential thing. Through such small nudges, we can support nature to flourish itself.

To reiterate, the concept of a holistic approach needs to be and must be introduced in the public discourse, forestry was just one example. It is only when we engage with nature with inherent awe towards it, that we could help it sustain us as a species. I do also understand that such complex ideas are difficult to put in easy-to-understand catchphrases but we need to begin somewhere.

The only way to not reach the species brink is to systems think! There, let's go!

Source: <https://www.newsindiatimes.com/are-carbon-credits-the-correct-answer-to-climate-change/>