



Tree plantations for the carbon market: More injustice for communities and their territories

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OUR VIEWPOINT

A new destructive business: Carbon credits from tree plantations

A new round of initiatives to plant tree plantation to provide carbon offsets is currently being proposed. Aside from the absurd notion—endorsed by the UN and various national governments—that tree plantations can offset the (climate) damage caused by burning fossil carbon, these initiatives have destroyed people's livelihoods and co-opted vast areas of community land.

Almost 24 years ago, the WRM published a document titled [“The Carbon Shop: Planting New Problems”](#). The briefing was aimed at alerting about a new business opportunity for the plantation industry: the expansion of tree plantations to generate carbon credits that allowed polluting companies to claim that the climate damage from continued burning of fossil fuels had been compensated. That first wave of plantations aimed at generating carbon credits was triggered mainly by the Kyoto Protocol. This United Nations agreement gave birth to carbon offsetting mechanisms that helped Northern governments and corporations to avoid the necessary measures to stop the climate chaos: ending the extraction of oil, gas and coal.

Within the carbon trading mechanisms of the Kyoto Protocol, the trade in carbon credits from tree plantations remained limited, not least because of the obvious absurdity of paying plantation companies for an already very profitable business that was causing well-documented massive ecological and socioeconomic damage and human rights abuses.

The plantation industry and conservation NGOs also took the ‘carbon plantation’ idea to the so-called voluntary carbon market. They kept promoting tree planting as a ‘solution’ to the climate crisis, claiming that without using trees to ‘remove’ carbon from the atmosphere, the goal of the UN Paris Agreement to limit global temperature rise to 1.5°C was impossible to reach. The continued promotion of this false claim has triggered a new round of tree plantation initiatives for carbon offsetting. Since the adoption of the UN Paris Agreement on climate change in 2015, and in particular, following the UN climate conference in November 2021 in Glasgow, Scotland, carbon offset initiatives involving tree plantations have multiplied. Companies’ pledges to become a ‘net-zero’-emissions producer have resulted in carbon offset projects proliferating in many countries in the global South.

As a result, the number of plantation projects for voluntary carbon markets has more than doubled in the past three years. Not only have these projects increased in number, but also in scale. Most of these projects are taking place in the global South where plantation companies can get large areas of land, trees grow fast and ways to avoid regulations are many. This has been the pattern since colonial times: companies target land in the global

South to expand their business because it is where they can make the highest profits by exploiting the land and the people.

Despite the huge propaganda by the plantation industry and its allies to try to greenwash their image, their industrial plantations destroy local livelihoods, grab vast areas of land, pollute water, and impose violence. It is also absurd to believe that tree plantations can compensate the (climate) damage resulting from burning fossil carbon. Tree plantations may store carbon temporarily, but they cannot guarantee storage of carbon for the hundreds and more years that carbon released from underground oil, gas and coal deposits will interfere with the climate. Claiming that tree plantations can compensate for the emissions that result from burning fossil fuel only benefits the plantation companies and the extractive sector that can continue -and even increase- fossil carbon extraction and use.

With this bulletin, the WRM wants to draw attention to this new business strategy to make expansion of tree plantations even more profitable for the plantation industry. The articles explain how and where this expansion is taking place, and who is benefiting from this latest corporate push for more destructive tree plantations.

One thing is clear: communities whose livelihoods depend on their territories will not stand to benefit from more tree plantations occupying their lands.

The carbon business, land and trees

Forest conservation and tree planting initiatives to provide carbon offsets are two of the corporate sector's favourite ways to greenwash their image and keep doing business as usual. These initiatives have features that make them very attractive to investors, for example the easiness with which project arguments and calculations can be manipulated. Therefore, it is no surprise that scandals have come to light—which has affected the kinds of projects being developed.

Climate chaos requires that companies stop extracting and using petroleum and other fossil fuels. This would, of course, shake the foundations of a global economy built on cheap energy generated by burning fossil coal, gas and oil, while also threatening the profits of some of the planet's wealthiest corporations.

To delay the inevitable and discourage governments from passing laws that require companies to actually reduce their emissions in line with what is needed to avoid uncontrollable climate chaos, corporations, together with the US and other governments, have devised the mechanism of **carbon offsetting**.

The trade in carbon offsets has grown rapidly following the signing of the Paris Agreement in 2016, and it has seen scandals and widespread criticism. With a turnover of US\$ 2.4 billion in 2023,(1) the voluntary carbon market has turned into a promising profit opportunity for companies taking part in it. On the one hand, giant corporations producing emissions from fossil fuel-based activities can continue and even expand their businesses, claiming their emissions are being offset. They benefit from the claim that buying carbon offsets makes them "**carbon-neutral**," suggesting that they are doing their part to tackle climate change.(2)

However, polluters who buy carbon offsets are not the only ones profiting from this new business opportunity. Many other 'players' – such as carbon firms, traders, auditors, rating agencies, certification consultancies, and investment funds – have discovered that there is quick money to be made from generating and marketing carbon credits.

The more this market grows, the more it diverts and delays industrial countries – most responsible for the climate chaos – from attacking the root causes of the problem and taking measures such as leaving fossil fuels in the ground.

Carbon offsetting and trees in a nutshell

The logic of offsetting emissions through projects that prevent deforestation or by planting trees is based on the fact that trees absorb carbon from the atmosphere and store it in their leaves, trunks and roots. As such, anyone who plants extra trees and claims they would not have been planted without the expected income from the carbon market can earn money by selling carbon credits to companies that claim they are unable to reduce

their own emissions. The extra carbon allegedly stored by planting extra trees cancels out – or ‘offsets’ – the extra fossil carbon. On a balance-sheet, the result of the calculation is (net) zero. This is why many polluting companies have published ‘net-zero’ emission promises rather than ‘zero emission’ promises: adding the ‘net’ allows them to continue polluting as long as they purchase enough carbon credits.

Why are corporations so interested in carbon offsetting?

Mineral coal, fossil oil and gas are made up of ancient biomass that lived millions of years ago. The carbon stored in this fossil biomass is released into the atmosphere when these fossil fuels are burned. Because so much fossil carbon has been added to the atmosphere, the climate is rapidly changing. The solution is to stop putting fossil carbon into the atmosphere by turning off the fossil fuel tap. However, many corporations would see their profits drop sharply if they stopped burning fossil fuels. It is therefore very convenient for them to claim that other initiatives (such as planting trees) can remove carbon from the atmosphere, making room for their additional carbon discharges. The corporations argue they do not cause damage to the climate even if they keep pumping fossil carbon into the atmosphere.

The misguided concept of offsetting emissions by planting or conserving trees has many contradictions. The most basic of these is the fact that its logic completely ignores the fundamental differences between “fossil carbon” and “biotic carbon,” which are also called slow and fast carbon cycles (see more about the differences in [Is All Carbon the Same?](#)). In addition, the certification of carbon offsetting projects – in particular avoided deforestation and tree planting projects – is also contradictory and [intrinsically incapable](#) of doing what it set out to do.

As a result, tree-based projects have generated millions of “phantom” credits – that is, credits not backed by any extra carbon stored in trees. Beyond the profusion of phantom credits, other recurrent impacts of these projects include land grabs and other forms of violence against communities that occur when such projects are implemented ([click here to review a bank of evidence](#)). Finally, the idea of carbon offsetting makes all the other impacts of fossil carbon extraction invisible.

Creating and trading carbon credits

Carbon credits are the tradeable units that make up carbon markets. In theory, a carbon credit represents the reduction or removal of one ton of carbon dioxide from the

atmosphere. In other words, one carbon credit works like a voucher for its holder to emit one ton of carbon dioxide, hence the term 'offsetting.' Thus, when a company claims to be "net-zero" or "carbon-neutral," it is usually because it has bought as many carbon credits as the carbon emissions that it continues to produce.

Rather than a physical product or commodity, a carbon credit resembles instruments traded in financial markets such as stocks, bonds and other securities. It explains why carbon credits are not only purchased by companies and individuals who want to offset their emissions, but also by traders and speculators. One carbon credit is currently worth somewhere between less than US\$ 1 and many dozens of US dollars. In any case, once the emissions to be offset occur, the 'license to pollute' given by the carbon credit terminates, and the carbon credit is removed from the market – or 'retired,' to use carbon market jargon.

Carbon credits are generated by projects that claim to remove carbon dioxide from the atmosphere or to prevent new carbon emissions. For such a scheme to count as an offsetting project and participate in carbon markets, it must be certified as such. Typically, there are three different mechanisms under which these projects can be developed to generate and sell carbon credits:

- Mechanisms established by international treaties (such as the United Nations Clean Development Mechanism –CDM – and the Paris Agreement);
- Mechanisms developed by regional, national, or sub-national governments;
- Private mechanisms offered by entities such as Verra that create and manage independent (and highly unregulated) standards for carbon credit project certification. Over the last five years, this mechanism has accounted for most of the volume of carbon credits issued.(3)

Once generated, carbon credits are traded on two kinds markets:

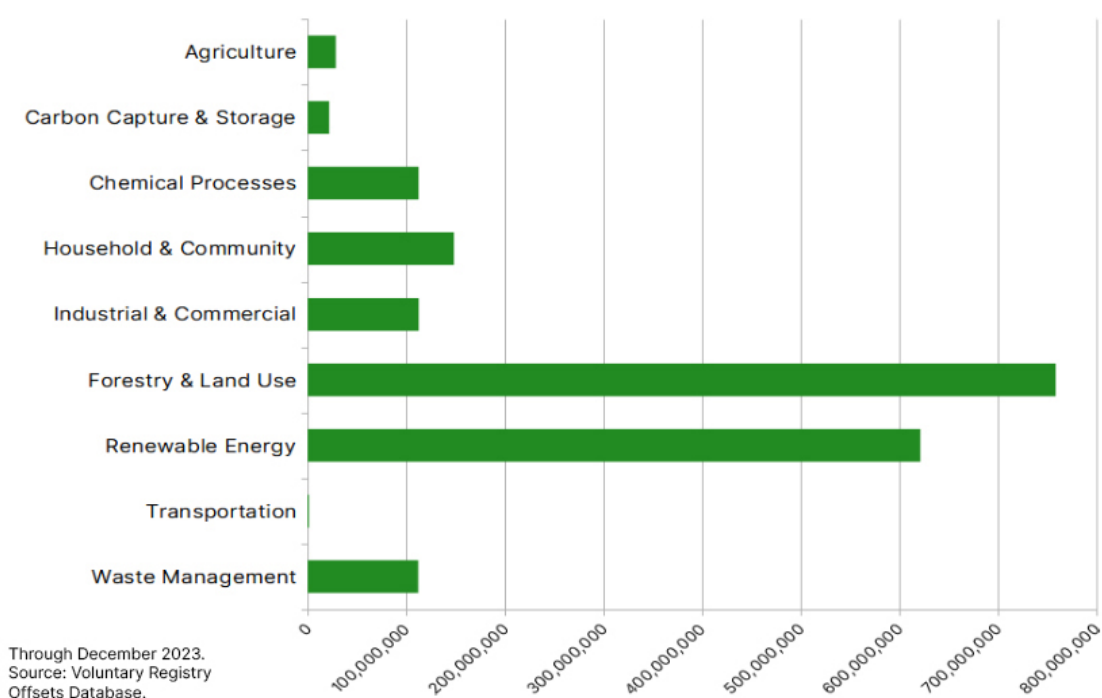
- So-called “**voluntary**” **markets** in which companies buy credits for the purpose of complying with self-established mitigation commitments, avoiding regulation, obtaining finance for the expansion of their fossil fuel intensive production, and allowing them to advertise their products and services as 'carbon neutral.' Carbon credits traded in voluntary markets are mainly derived from private carbon standards.

- **Compliance markets** created by international, national or regional public policies that require companies to reduce or offset their emissions. One such example is the European Union Emissions Trading System (EU ETS). There is also a strong pressure to include carbon offsetting in the UN Paris Agreement. When people speak about “Article 6” of the Paris Agreement, they are referring to the controversial negotiations about the extent to which countries can use carbon offsets to achieve their emission reduction targets under the UN Paris Agreement.

Why are most carbon credits issued by land-based projects?

A wide range of activities can be used to apply for generating carbon credits. Examples include wind and solar energy projects, waste management, distributing ‘efficient’ cookstoves to communities, industrial carbon capture and enhanced industrial technologies, to mention just a few. However, the projects that lead the generation and sales of carbon credits are framed as so-called ‘Forestry & Land Use’ using carbon market jargon.

Quantity of carbon credits issued by scope



In the current carbon rush led by companies that want to be seen as carbon neutral, **forest conservation** and **tree plantation** projects have features that make them very attractive to investors. Compared to other categories, they generally require lower investments in relation to the number of credits they can generate. In addition, it is easier to manipulate the calculation of the volume of carbon credits that these land-based projects can generate. In doing so, project developers can exaggerate the carbon savings and thus increase the volumes of credits they can sell. (For more on this methodological issue, see [What are the main types of tree plantation projects for carbon business](#), on this bulletin).

It is no coincidence that **forest conservation projects** that sell carbon credits have attracted the attention of dozens of investigators and researchers in recent years. These

projects claim to **reduce** carbon emissions by avoiding deforestation. However, studies and articles have revealed fraud and chronic overstatement of the reduction in deforestation – that is, the stated goal of these projects, on which the calculation of their carbon credits is based.(4) As a direct consequence of these investigations, the demand for “nature-based”(5) credits fell sharply. The category of avoided deforestation projects, which held the largest share on the voluntary carbon market in 2022, became the least significant in 2023, according to the price reporting service Quantum Commodities Intelligence (QCI).(6)

Given that the main standard body for such forest conservation offset projects, Verra, was forced to put many projects "on hold", there was also a decrease on the supply side, with the issuance of credits from avoided deforestation projects shrinking abruptly by more than 40 percent in the same period. In response, carbon market profiteers launched a series of what they term ‘integrity’ initiatives. The promise of these initiatives is to deliver “high-quality” credits – and thus restore the reputational damage caused by the many cases of phantom credits. The inherent flaws of carbon offsetting, however, remain untouched by these initiatives.

These conservation projects claiming to avoid deforestation have been in the spotlight because it became clear that many are based on implausible stories about the threat of deforestation, overstating the emission reduction as a result of the project activities. With the climate crisis quickly accelerating, international climate discussions started to focus more on projects that could **remove** ‘excessive’ carbon from the atmosphere rather than just **reduce** the release of more carbon dioxide into the atmosphere. Therefore, ‘carbon removals’ (rather than the reduction of carbon dioxide emissions claimed by conservation or avoided deforestation projects) is quickly becoming the favoured type of carbon credit.

One project category profiting from this new interest in activities that remove carbon from the atmosphere is “**afforestation and reforestation**”, in which **tree monocultures** are included. Both the number and size of these tree plantation projects have grown significantly in recent years, attracting new types of investors and revealing new strategies used to profit from the lucrative trade in carbon offsets.

(1) [Global Market Insights, 2023](#).

(2) Taking into account that this has become such a widespread practice of corporate greenwashing, and in view of the scandals that have come to light, the EU is banning products advertised as “environmentally friendly”, “climate neutral”, “eco” and other labels without evidence, while introducing a total ban on using carbon offsetting schemes to substantiate the claims. The Guardian, 2024. [See here](#).

(3) The World Bank, 2022. [State and Trends of Carbon Pricing 2022](#), p. 34.

(4) The World Bank, 2022. [State and Trends of Carbon Pricing 2022](#), p. 34.

(5) In carbon market jargon, ‘nature-based’ credits are those generated by avoided deforestation projects, afforestation, reforestation, regenerative agriculture, improved forest management, etc.

(6) [Quantum Commodity Intelligence, 2024](#).

World Rainforest Movement

Tree plantations for carbon markets

How many tree plantations are there, and how big are they? In what regions and countries are they located? What are the differences among the various "players" who are directly involved in implementing tree plantations for the carbon market? This article presents figures and information seeking to answer these and other questions.

Large-scale tree monocultures aimed at the production of pulp, timber and biomass have long been promoted and developed by companies. These monocultures have proven very harmful to neighbouring rural communities and the natural environment.(1)

The link between these plantations and carbon offsetting as a way of generating extra profits for the plantation industry is also not new. The first wave of tree plantation ventures for carbon offsetting appeared around the 2000s and was promoted by the UN's Clean Development Mechanism (CDM). The CDM was one of three carbon trading instruments under the UN Kyoto Protocol and existed from around 2000 until 2023. In a very controversial move, the CDM accepted afforestation and reforestation, including in industrial tree plantations, as a project category that could generate carbon credits, allowing the compensation of emissions in the Global North through tree planting in the global South. It is important to remember that many of these projects had disastrous consequences for the territories where they were set up.

HISTORY REPEATS ITSELF

The first push for carbon offsetting projects involved a global wave of plantation initiatives around the 2000s. Many of these projects were characterized by conflicts with local communities and environmental impacts.

For example, in the 1990s, the [FACE-Profafor](#) project started to establish agreements with dozens of communities in the Ecuadorian Andes in order to set up pine plantations financed with Dutch capital to offset the emissions of a thermoelectric plant in the Netherlands. As a result, traditional communities lost the right to use their own lands, water sources dried up, and they were forced to rent land for their own animals to graze on.

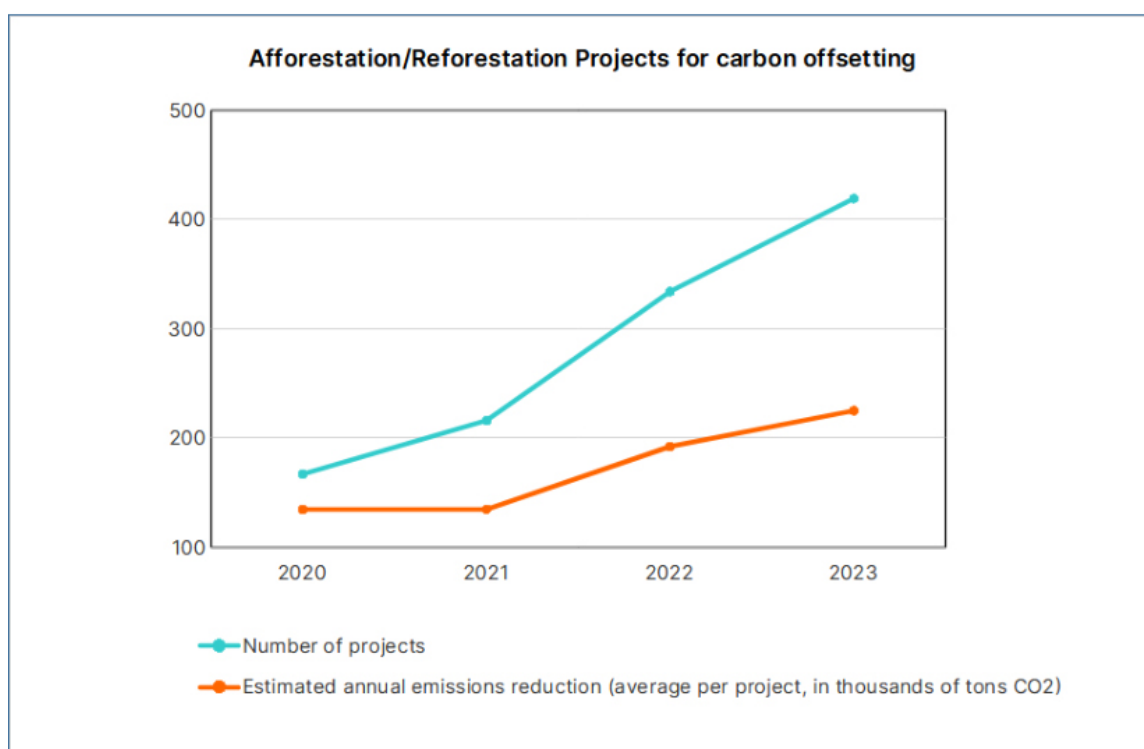
Also in the 1990s, a similar project in [Uganda](#) established a eucalyptus plantation that led to abuses. Local villagers were beaten, shot, and blocked from entering their own land. Animals were confiscated by armed rangers protecting the "carbon trees."

Another example of this first push for tree plantation projects for carbon offsetting is that of the French-based steel producer [Vallourec](#). This initiative also sought to sell carbon credits within the scope of the CDM. The company's investments in eucalyptus plantations for offsetting emissions in Brazil led to violent conflicts with traditional communities, fraudulent land acquisitions and the expansion of a green desert in the region.

Unlike previous initiatives, the new round of expansion of such plantations is being developed mainly through private carbon standards but often based on methodologies and calculations developed under the CDM. These new schemes are selling carbon credits mostly in voluntary markets. In addition, they are diverse in their design (see [What are the main types of tree plantation projects for the carbon business](#), on this bulletin) and have grown significantly in number, area and geographical scope.

How many tree plantation projects exist? How big are they?⁽²⁾

In the past three years, the number of applications to register tree plantations under private carbon standards has risen sharply (see graph below). In addition to the solid increase in the number of projects, it is important to note that the average ‘size’ of the projects is also increasing in terms of estimated emissions reduction. This suggests that the projects are growing in scale.



The graph includes data from the following four carbon standards: VCS-Verra, Gold Standard, American Carbon Registry (ACR), and Climate Action Reserve (CAR).

By February 2024, there were 492 afforestation and reforestation projects listed in eight private carbon standards (see table below). More than half of these projects are at

different stages of implementation and therefore have not yet received approval to start issuing carbon credits. As such, they are not yet allowed to sell the carbon credits.

| Table 1: Afforestation and reforestation projects in private carbon standards (Feb 2024) | | |
|--|---------------------------------|--------------------------------------|
| Carbon Standard | Number of projects (all stages) | Share of total carbon credits issued |
| Verified Carbon Standard (VCS-Verra) | 334 | 49% |
| Cercarbono | 39 | 25% |
| BioCarbon* | 21 | 10% |
| American Carbon Registry (ACR) | 13 | 10% |
| Gold Standard | 54 | 6% |
| Climate Action Reserve (CAR) | 17 | 0% |
| Social Carbon | 5 | 0% |
| Plan Vivo | 9 | ** |
| TOTAL | 492 | |

*Oil palm projects listed as *Agriculture, Forestry and Other Land Use* were not considered.

**Issuance data at Plan Vivo not considered, as it is available only on a project-by-project basis.

There are less than 500 tree plantation projects registered in the voluntary carbon market. This number is much lower than other categories of projects, such as **Renewable Energy** – which includes windmills, hydropower and solar panel projects – or **Household & Community projects** – e.g. cookstoves and biodigester projects. In February 2024, there were 2,300 projects from each of those two categories. However, tree plantations projects, included in the **Afforestation / Reforestation** category generate significantly larger volumes of carbon credits on average.(3) Combined with the sustained increase in the number of tree plantation projects in recent years, as shown in the graphic above, this indicates that the extent of land used by these plantations is also increasing.(4)

Where are tree plantations for carbon business located?

When we look at the location of afforestation and reforestation projects in the registries of private carbon certification standards, the predominance of projects in countries in the global South is noticeable. Countries in the global South currently host most of the initiatives. Among the leading countries are India (75 projects), Colombia (74) and Brazil (32). The African continent as a whole also accounts for a significant number of projects (88). Finally, China is the country that concentrates more projects on its territory, with 76 initiatives.

| | |
|---------------|------------|
| Latin America | 181 |
| Asia | 171 |
| Africa | 88 |
| US and Canada | 33 |
| Europe | 15 |
| Oceania | 4 |
| TOTAL | 492 |

The appendix ([available here](#)) presents a list of all afforestation and reforestation projects indexed by country according to the databases of the eight private carbon standards analysed.

Who profits from tree plantations projects for carbon business?

Many different organisations and companies are directly involved in the implementation of tree plantations for carbon business. The first category consists of project proponents and developers:

- Timber and pulp & paper companies ranging from smaller entities to giant transnational corporations. Examples include the Brazilian company Suzano (which has claimed to be the world's largest cellulose producer), Miro and Green Resources (the self-proclaimed largest forestry groups in West and East Africa, headquartered in Europe) and Klabin (which claims to be Brazil's largest paper producer and exporter). They all have projects registered or under validation with Verra's carbon standard VCS (Verified Carbon Standard). They also share a track record of violating communities' rights. (Use these links to learn more about [Suzano](#), [Green Resources](#), [Miro](#) and [Klabin](#)).
- 'Climate companies' ranging from small carbon consultancies to large companies such as the world's largest carbon trader, South Pole, whose co-founder and CEO resigned in 2023 after in-depth investigations pointed to fraudulent overstatement of credits in the company's main project.⁽⁵⁾ Another example is KlimatX, a company with a track record of taking over community land based on false promises. It recently rebranded as Carbon Done Right and now describes itself as 'the world's first smallholder farmer carbon credit reforestation company.'⁽⁶⁾

- Companies from various sectors with big carbon footprints. They directly own plantations or have access to carbon credits from plantation projects through investment funds that finance these initiatives. Examples include Total Energies, Eni, Danone, SAP, Michelin, Apple, Mars and many others.
- NGOs – Large conservation NGOs can be either project developers, such as TNC (The Nature Conservancy) and EcoTrust, or partners in the implementation of plantation projects, such as WWF (World Wide Fund for Nature Inc.). Other examples are NGOs with a history of working closely with corporations that have become involved as technical advisors, such as Namati and Solidaridad.
- Governments, through public companies (e.g. Colombia’s Ecopetrol and PetroChina) or directly through its departments.

Another set of entities who directly benefit from tree plantation initiatives for carbon offsetting are entities involved in the process of creating carbon credits. These include the organisations that own the certification standards and the auditors hired to carry out the validation and verification procedures required by the certification standards. As shown in Table 1 (see How many tree plantation projects exist? How big are they? above), in the case of afforestation and reforestation projects, Verra’s carbon standard stands out with nearly 70 percent of the projects and almost 50 percent of the credits issued to date.

VERRA AND CARBON CERTIFICATION

The world’s largest creator of carbon offsets from land use activities is Verra. At the end of 2023, it had issued more than 1.2 billion carbon credits. Although it promotes itself as a non-profit organisation, it operates like a company. Verra charges project proponents US\$ 0.20 for each credit issued, among many other fees.(7) With compensation and benefits over US\$ 400,000 a year,(8) its founding CEO resigned in 2023 after scandals revealed that projects using Verra’s methodologies had sold millions of junk carbon credits.

The scandals involving Verra projects include the [Kariba project](#) in Zimbabwe, the flagship initiative of the world’s largest carbon trader, South Pole. With a gaping hole in Verra’s certification system that went unnoticed for 10 years, the project actually resulted in more carbon emissions. Another [investigation](#) analysed 32 Verra projects and concluded that 94 percent of the credits issued were overestimated and should not have been approved, and that only six projects did not have their effectiveness overestimated.

However, the problem goes beyond Verra. The process of certifying carbon projects has inherent flaws that make it a complete farce. To better understand how the carbon certification process works, see [Carbon Certification: “The Emperor’s New Clothes.”](#)

[The appendix](#) includes a list of all project proponents listed on the databases of the eight private carbon standards analysed.

(1) For more information, see the WRM publications [“What could be wrong about planting trees?”](#) and [“12 replies to 12 lies about industrial tree plantations”](#).

(2) The figures and information presented in the subsequent sections refer to a review of projects under the Afforestation and Reforestation category, as defined by the main private carbon standards. This means that this analysis does not include wetland restoration projects, which occasionally consist of planting trees for carbon markets too, although in a number of projects more than 10 times smaller than those in the Afforestation and Reforestation category. It also does not include data from independent tree plantation projects (see [What are the main types of tree plantation projects for the carbon business](#), on this bulletin) or from those within national schemes that are not necessarily listed in the private carbon registries.

(3) The average estimate of emission equivalent reduction per project per year is as follows:

- 225,040 tCO₂ for Afforestation/Reforestation projects;
- 187,259 tCO₂ for Household & Community projects;
- 119,397 tCO₂ for Renewable Energy projects.

The figures are based [on the database](#) developed by the Berkeley Carbon Trading Project.

(4) Private standards datasets do not provide information on the total area encompassed by the projects. To obtain this information, it is necessary to consult the projects pages and documents on an individual basis.

(5) Follow the Money, 2023. [Showcase project by the world's biggest carbon trader actually resulted in more carbon emissions](#).

(6) City A.M., 2024. [Green AI Carbon platform AIMs for London listing amid lack of confidence in market](#).

(7) Verra, 2023. [VCS Program Fee Schedule](#), v4.3.

(8) ProPublica, 2024. [Nonprofit Explorer search engine](#).

What are the main types of tree plantation projects in the carbon business?

Behind every tree plantation developed for carbon offsets, there are external agents seeking to profit from increased control over the land. And while they all have the same colonial approach, these plantations can vary widely: they can be large-scale monocultures or schemes with smallholder farmers; they can include exotic species or native species; and some of them may even exist on paper only.

Afforestation and reforestation projects for carbon offsetting are diverse in their design. They vary in terms of cultivation systems (species planted and how these are cultivated) and with regard to their “social design” (who owns the land; who works on it; who will hold the rights over the credits, etc.).

With regard to the cultivation systems, pine tree monocultures currently account for 50 percent of the supply of carbon credits from projects with fast-growing species, followed by eucalyptus and china-fir, with around 20 percent each. Based on data from Verra's Verified Carbon Standard (VCS), the share of carbon credits generated by pine tree monocultures is expected to increase considerably over the next 10 years, reaching around 75 percent of the total, according to QCI.

Perhaps concerned about the negative image of industrial tree monocultures because of the ecological, social, economic damage and land conflicts they cause, carbon market promoters paint a different picture. Plantations are often described as “planted forests” in the project descriptions that offer carbon credits, and statistics hide monoculture plantation projects behind ‘multispecies’ project categories.

DIVERSIFIED PLANTATIONS? WATCH OUT FOR TRICKY STATISTICS

It is important not to draw misleading conclusions from the limited information available in the project documents. Data available from QCI, for example, indicates that more than 50 percent of the supply of credits from Verra's afforestation and reforestation projects currently comes from ‘multispecies’ projects. This information does not suggest monoculture tree plantations but rather diversified plantations or restoration projects with native species. The reality is quite different. For example, one of Suzano's projects in Brazil, the “ARR Horizonte Carbon Project,”⁽¹⁾ consists of more than 15,000 hectares of plantations, of which an overwhelming 93 percent is a green desert of one single exotic species – eucalyptus. The same goes for Green Resources' “Bukaleba Project” in Uganda, where, according to information in the project description, 95 percent of the planted area is cultivated with pine and eucalyptus monocultures. Nevertheless, as these projects comprise small areas planted with indigenous species, the whole project (and therefore the credits it generates) falls into the category of ‘multispecies’ projects.

Regarding the ‘social design,’ projects vary in terms of the people and organisations involved, the ownership of the land, the rights over the carbon credits generated and over the trees themselves. In many projects, proponents carry out the planting through hired labour on their own private lands or on land concessions. In other cases, they seek to establish contracts with smallholders, indigenous or traditional communities. If the latter is the case, the communities are usually responsible for planting the trees, while the rights to sell the carbon credits remain entirely or largely with the companies running the carbon project. Although these agreements also vary a lot in their terms and rules, they often include illegal or abusive clauses, and are sometimes even fictitious, as we point out below.

Thus, the category of afforestation and reforestation projects for carbon offsetting covers a wide range of cultivation systems and social designs. These include large-scale industrial tree plantations by transnational companies; monoculture plantations by forestry companies through agreements with smallholder farmers; small-scale agroforestry plantations by smallholder farmers through contracts with either carbon start-ups or well-known forestry companies; native vegetation restoration projects; and so on.

Due to insufficient information in the datasets made available by the carbon standards, it is not possible to accurately estimate and compare the amount of land occupied by different types of projects, such as monocultures vs. diversified/restoration plantations; commercial vs. non-commercial plantations; private plantations vs. smallholder schemes, etc. However, analysis of a sample focused on projects with high estimates of carbon uptake, makes it possible to identify project patterns with common key characteristics:(2)

- **Large-scale tree monocultures for carbon on privately owned lands;**

- **Tree plantations on communities’ lands:**

- Schemes with smallholder farmers in which companies seek to sign contracts with local communities and small farmers to establish either commercial monocultures or diversified plantations on their lands;
- Long-term leases of community lands

The following sections illustrate the three types of projects described above, showing that any consistent analysis will find both structural and circumstantial problems that stand in contrast to the romantic descriptions that companies and certifiers publish about their projects. Information and data were obtained mainly from the documents available at private carbon standards, particularly [Verra’s VCS](#) and [Cercarbono](#).

Large-scale tree monocultures for carbon on privately owned lands

Industrial tree plantations of pine trees and eucalyptus are among the most common and largest projects for carbon offsetting under the category afforestation and reforestation. Particularly in South America, these projects are usually carried out on privately owned lands or in association with large landowners.

- **SUZANO PROJECTS IN BRAZIL**

One example is the world's largest project in terms of estimated annual removal. Promoted by Suzano, one of the largest pulp and paper companies in the world, the project consists in planting 38,708 hectares of one single species – eucalyptus – in the state of Mato Grosso do Sul, Brazil. According to the project description, the carbon credits will be a result of the change in land use in previous pasture areas, with plantations being developed with “good forestry practices” certified by “sustainable programs.” Suzano also owns another similar and already registered project of 14,427 hectares of eucalyptus monocultures in the same state, for which the first issuance of credits took place in July 2023. The project allows the company to claim that it is offsetting its emissions and to generate an extra income by selling credits to entities like the UK-based Standard Chartered Bank.

Industrial tree plantations like the ones from Suzano's projects have so many problems and can be questioned from so many angles that they help to expose the fantasy of carbon offsetting. First, it would be possible to question the exaggeration in the carbon removal estimate. In line with other phantom credits from land-based projects exposed in 2023,⁽³⁾ the removal rate claimed by Suzano in this afforestation project (184.7 tons of CO₂ per hectare per year) is nearly 5 times higher than what is pointed out in scientific literature. ⁽⁴⁾ But even more serious is the fact that the auditors did not question the additionality of the project (see below), which is a fundamental condition of any carbon offset project.

ADDITIONALITY OF CARBON OFFSETTING PROJECTS

To be additional means that a project would not have happened if not for the expectation of revenue from the sale of carbon credits. In theory, any plantation that sells carbon credits only exists because of the opportunity presented by carbon markets. In other words, the plantation would not have taken place for other reasons such as timber or pulp production – even though once it takes place the company might take advantage of these products as well.

The concept of additionality is always based on a baseline scenario, which is a reference for what presumably would have happened in the area if the project had not taken place.

Given that Suzano has been aggressively expanding its plantations to feed its new mill under construction in the municipality of Ribas do Rio Pardo – the same location of the project –, the company's story that it would not establish the eucalyptus plantation if it was not for the money it can obtain from selling carbon credits, is ridiculous. The fact that Suzano carries on 1.4 million hectares of eucalyptus plantations in Brazil to supply its 11 pulp mills(5) make clear that the project would take place anyway to feed the profitable pulp production of the company, whose net profit in 2023 was approximately US\$ 2.8 billion.(6) It is no coincidence that there are more companies expanding their eucalyptus plantations and building pulp mills in the region of Suzano's project.

The impossibility to prove additionality is not exclusive to Suzano. It is shared by any carbon offset, and thus by all large-scale monoculture tree plantations promoted as carbon projects.

- **URUGUAY**

In Uruguay, 12 of the 14 current afforestation projects selling or preparing to sell carbon credits in voluntary carbon markets are owned by companies with long-established wood, pulp or biomass for energy production – which is explicitly described in the projects' documents as their primary objective. Selling carbon credits for their owners is the 'cherry on the cake,' extra profit. Moreover, without exception, these 12 projects use the somewhat simplistic argument that they will be implemented on degraded grasslands, disregarding the extremely high plant diversity of South America's native grasslands(7) and ignoring the drastic reduction in biodiversity caused by monocultures, especially by the involuntary spread of several species of pine trees. This did not prevent several of these projects in Uruguay from obtaining the CCB (Climate, Community and Biodiversity) standard, which stands for carbon projects that, among others, supposedly conserve biodiversity.

One example is the project by the company Guanaré SA, whose 21,200 hectares of pine and eucalyptus monocultures produce wood and cellulose to be exported to Asia, while the carbon credits are sold to transnationals such as Mitsui and Aldi.(6) With a crediting period of 60 years since it started in 2006, this is the afforestation project that has issued the most carbon credits in the world, despite being "fundamentally unadditional," that is, "it would likely have happened regardless of the voluntary carbon markets."(9)

- **COLOMBIA**

Other examples include the project Bosques de la Primavera S.A. in Colombia, a joint venture between forestry companies registered under the Biocarbon certification scheme. This has been the most productive Biocarbon afforestation and reforestation project in terms of the number of credits generated, with almost 20,000 hectares of industrial plantations of exotic species (pine, eucalyptus, acacia and teak) in the Llanos region. Also in Colombia – and very similar – are the five largest afforestation and reforestation projects of the certifier Cercarbono, two of them developed by South Pole – the company that faced criticism for continuing to sell carbon credits from the Kariba REDD project in Zimbabwe even after the company had become aware that the alleged carbon savings were exaggerated. Together, the five projects add up to more than 30,000 hectares of industrial tree plantations, especially pine and eucalyptus.

In most of the industrial plantations projects mentioned above, the carbon contained in harvested wood is not considered as carbon removed from the atmosphere; therefore, it is not taken into account to generate credits. In theory, then, the carbon credits would be generated only from the organic matter left in the soil once the trees are harvested. However, that does not prevent the fact that this organic matter left in the soil (decaying roots, leaves and branches) will inevitably end up decomposed by microorganisms, releasing carbon that will return to the atmosphere sooner or later. In other words, the carbon present in plants (or in any form of life) will never be permanently 'locked up' in the soil, as it is part of a biotic cycle.

Of course, this is conveniently ignored by the proponents' narrative, in line with international agreements that endorse carbon offsetting through tree plantations. The overriding interest in profit is expressed quite clearly in the criteria adopted by the developers of the Bosques de La Primavera S.A. project, who make it explicit that the plantation owners will constantly compare the net income from the sales of the wood with the net income from leaving the trees standing and sequestering carbon. “They will select the alternative which produces the greatest net income.” (10)

Furthermore, the very methodology used by most industrial tree plantation initiatives for carbon offsetting presents a number of highly subjective criteria that can be used as conveniently as possible by project proponents and developers.

CONVENIENT METHODOLOGIES IN AN INTRINSICLY FLAWED SCHEME

The “AR-ACM0003” methodology accounts for more than 50 percent of all afforestation and reforestation projects for carbon offsetting listed in eight certification standards analyzed. It is a methodology for large-scale projects with highly subjective criteria.

For example, one of the documents that comprise the methodology is a [guide](#) to identifying the baseline scenario and demonstrating the additionality of the project – two elements that determine whether the project will or will not be accepted to offset emissions, as well as the

amount of credits that the plantation will generate. Applying this section of the methodology requires the project developer to arrive at five concrete outcomes:

- “- List of credible alternative land use scenarios that would have occurred on the land [...]
- List of plausible alternative land use scenarios [...]
- List of barriers that may prevent one or more land use scenarios [...]
- List of land use scenarios that are not prevented by any barrier [...]
- Identification of the most economically and/or financially attractive land use scenario [...]

The range of qualitative factors used to get to each one of these outcomes is so broad that it provides enormous flexibility for the project developer to draw up the arguments that best support their analysis, whatever it may be. However, the lack of quantitative variables and objectivity in plantation (and conservation) projects' methodologies is not the major problem. The unsolvable issue here is that the claim that the project will sequester a certain number of emissions is based on predictions, hypotheses – and therefore do not represent reality itself – about what would or would not have happened in the region of the project in an expected period of many decades, sometimes 100 years. Unavoidably, such long-term scenarios depend on several unpredictable economic, social, political and environmental variables. To top it all off, as mentioned above, the entire application of the methodology is validated by an intrinsically flawed certification system that substantially jeopardizes the credibility of the information provided by project proponents and certifiers.(11)

Large-scale tree monocultures have existed for a long time. However, the examples mentioned above – and many others among the list in the Appendix ([available here](#)) – show that with the creation of the carbon offset mechanisms, forestry and pulp & paper companies can now profit from a new product without much effort other than doing paperwork along with carbon certification schemes.

Long before the carbon fallacy

Carbon offsetting is not just [a problem in and of itself](#). In the case of plantations, it has exacerbated existing problems. Either directly or indirectly, large-scale tree monocultures have long been the cause of evictions of grassroots communities, land grabs, water grabs, deforestation, biodiversity loss, and often raging fires that not only release carbon back into the atmosphere. They also cause the destruction of livelihoods and deaths. These impacts are often kept hidden behind corporate lies. More information can be found here: [What could be wrong about planting trees?](#), and [12 replies to 12 lies about industrial tree plantations](#). There is also a considerable record of devastation and violations caused specifically by the above-mentioned Suzano (see [What you need to know about Suzano](#)).

Schemes with smallholder farmers

A considerable number of afforestation and reforestation projects are implemented using schemes with smallholder farmers. Such projects share two characteristics. First, the plantations are set up on land not owned or tenured by the project proponent. Second, the labour required for the planting and management of the tree plantation is provided by the communities or smallholders themselves. These plantations can be either commercial monocultures or multiple-species plantations aimed at different purposes besides generating the carbon credits.

- **INDIA**

One example is the project led by the Paris-based entity Livelihoods Fund, through which companies like Danone, Michelin, Hermès, SAP, Mars, Chanel, and 'development' banks like Germany's KfW (through its subsidiary DEG Invest) are investing in plantations in India. According to the project description, which is available in Verra's [VCS registry](#), the initiative consists of having more than 9,700 farmers from 333 villages in the Araku Valley plant fruit trees on more than 6,000 hectares of tribal (sic) community land – of which the project classifies 60 percent as “barren land”. The project states that communities have signed 20-year legally binding agreements accepting that the rights over the carbon credits that the project will issue are assigned exclusively to the Livelihoods Fund. For their part, the communities remain only in possession of the fruits and “other valorised outcomes” generated by the project once the distributed saplings have grown.

A recent [report](#) shows that farmers involved are not aware of carbon credits, much less the fact that companies on the other side of the world are benefiting from carbon-neutral claims by selling a new product generated by their labour on their land. Furthermore, the report shows that the ‘additionality’ claim of the project is questionable: a government agency – and several other private agencies, according to villagers – have been providing free saplings and training to tribal farmers (sic) long before the project's arrival.

A similar example, also in India, is that of nine ongoing projects of Core CarbonX Solutions, a small company with close connections to the financial sector. These projects include the third largest afforestation/reforestation project in the world based on estimated carbon uptake. In the project descriptions, the company claims to have entered into “individual” agreements with tens of thousands of “selected subsistence” farmers from over 8,000 villages. It also claims that workshops, consultation and training were conducted at the village level and that it distributed saplings for small agroforestry areas. Altogether, the projects supposedly cover an area of over 400,000 hectares(!) of allegedly degraded or fallow lands, spread across six states in India. According to the projects, 60 percent of the income from the sale of carbon credits would go to the farmers.

One of the many inconsistencies in the description of Core CarbonX projects stands out: the text describing the meetings supposedly carried out for local stakeholder consultation

is exactly the same **for all projects**. This is curious – to say the least – considering half of the projects embrace more than 1,000 villages each, with one listing 4,000 villages alone. In any case, it is hard to believe that the inflated figures of area and villages embraced, as well as of carbon uptake of the project presented by the company and obtained at Verra’s VCS registry, are not just another case of exaggeration with no concrete grounds, just as several other land-based carbon projects have been proved to be after having been already ‘approved’ by the certification process. It is equally hard to believe that conditions will then be in place for the thousands of ‘subsistence’ farmers (as referred to in the project description) involved in these projects to be able to properly assess the distribution of the carbon credit income promised by the company.

- **UGANDA**

In central Uganda, New Forests Company states that its carbon project does not focus on its own commercial plantations, but it actually involves an “Out-grower Afforestation Programme.” The company intends “to share their passion for tree growing and support rural livelihoods” through the program in close cooperation with WWF. In practice, New Forests Company has donated seedlings to communities living next to the company’s plantations for them to establish plantations of interest to the company – pine and eucalyptus – but on the farmers’ own land, with their own labour.

New Forests Company claims to be the “1st option to buy mature trees” from the farmers. However, experience with such outgrower schemes [elsewhere](#) shows that companies are the ones who will most benefit from the sale of the timber in such arrangements. As for the carbon credits, the company claims to have signed an agreement with each out-grower association, through which the farmers will receive 60 percent of the carbon credit income. Once again, questions arise: should the project ever sell carbon credits? How will farmers know they are really getting their fair share given sales prices are rarely disclosed? What costs will be deducted from and reduce the 60 percent promised to the associations? Finally, and perhaps more importantly, what other overlooked impacts will remain for the communities once land used for “subsistence” activities is suddenly occupied by monoculture plantations?

The impressively high figures of the many smallholder’s schemes projects in terms of numbers of farmers and rates of carbon sequestered raise questions about their verifiability and whether they actually exist in the terms described in the project documents. They also raise deeper questions of to what extent these projects are not new forms of colonialism and appropriation of labour and land in the global South.

The severity of impact that tree planting for carbon projects can pose for food sovereignty of peasant families entering such carbon contracts has recently been exposed in relation

with a carbon offset project in western Uganda. Farmers initially persuaded to plant trees for a carbon offsetting project by the NGO Ecotrust have started cutting down the trees as they could no longer grow food to feed their families once the trees took over the land. A recent investigation shows that the consequences of engaging with the project have not been the promised benefits, but rather hunger and poverty. A community leader who joined the project himself and has acted as a spokesperson for other participants estimates that of the hundred farmers he is in contact with, only six or seven are happy with the project as “they had unused land to plant on and were paid better. The rest of us are much poorer than before. Almost everyone has started cutting down the trees or is planning to do so”.(12) Ironically, the project is called “Trees for Global Benefits” and supposedly offsets emissions of a European fast-**food** company.

Such consequences cannot be considered accidental or unexpected outcomes. In 2017, researchers had already raised concern over the risk that the Ecotrust project in Uganda locks small farmers “into a type of land use for a long time that reduces their ability to adapt to deal with temporary crises as well as long-term changes, which in the worst case can mean long-term negative effects on their life situation”.(13) The research also raised concerns on the lack of transparency, poorly informed consent and widespread confusion about what the carbon offsetting project is basically about. The early indications corroborate the fact that failures in these tree planting projects for carbon offsetting are not circumstantial but structural and predictable.

Long-term land leases

Often, tree plantation initiatives for carbon offsetting are also established through land leases or concession agreements signed by the companies with national governments. In these cases, even when the countries’ laws or the agreements (or the entity who certifies the carbon project) establish that the company’s project can only go ahead with the approval and/or free, prior and informed consent of the communities living on that territory, in practice this virtually never happens. Rather, the company will use several tactics to convince the customary leadership of communities in the concession area to accept their project and claim the community support, as it is also the case in other types of projects.(14)

- **GREEN RESOURCES IN UGANDA AND TANZANIA**

In eastern Africa, the company Green Resources has implemented carbon projects in Uganda and Tanzania. The latter is a 10,814 hectare pine and eucalyptus plantation for the manufacturing of wood products (the company's core business), with a duration of 99 years. In the project description, the company acknowledges that the land was under customary law and occupied by villages “but remained idle.” It further claims that it followed the required steps to acquire the land under a 99-year lease agreement with the Tanzanian government. The company states that the project will bring socio-economic development to local communities. However, evidence collected in an investigation by the

Oakland Institute revealed that the activities of Green Resources have been “marred by social disruption, adverse livelihood impacts, and environmental problems” such as biodiversity loss and water contamination by agrochemicals.(15)

Other forestry companies have similar and more recent ongoing tree plantation ventures for carbon offsetting on the African continent.

- **MIRO FORESTRY IN GHANA AND SIERRA LEONE**

In West Africa, the UK-based company Miro Forestry has been expanding its commercial plantations at a rate of 3,000 hectares a year. This expansion has involved large amounts of public money from European banks (Finland's FinFund, the UK's CDC and the Netherlands' FMO) channelled through the Arbaro Fund, whose plantations have already been exposed for abuses and damage to rural communities in Africa and South America. (16)

Taking advantage of the carbon market opportunity, Miro Forestry has launched two projects in Ghana and Sierra Leone, which 'add' the new product “carbon credits” to the expansion of its timber business. Together, the projects will cover an area of around 26,000 hectares mainly occupied by monocultures of eucalyptus (60 percent) and Gmelina arborea (30 percent). In the case of the Sierra Leone project, the area has been used by at least 80 communities for generations, with no such information in the description of the Ghana project. Both projects will last for 30 years.

Miro Forestry claims they have long-term formal agreements with traditional landowners and Chiefdom Councils through which all of the land used in the projects is leased to the company. However, the fact that these communities' livelihoods are customarily as well as intrinsically bound up with diversified land use for meeting nutritional and other needs – and also because of what is shown in many other cases such as the ones mentioned above – makes it difficult to believe there was an informed and free decision by a sufficiently representative portion of the communities.

- **REWILDING MAFORKI IN SIERRA LEONE**

The Rewilding Maforki Company's 50-year project is also located in Sierra Leone. It consists of 25,000 hectares of plantations on community land supposedly leased from dozens of chiefdoms. Rewilding's associate company Carbon Done Right has said that it had “secured access to 57,000 hectares” in Sierra Leone, but in reality no leases have been registered with local authorities.(17) A recent investigation by the HEKS/EPER and SiLNoRF (18) that surveyed residents from 25 villages affected by the project strongly also points to non-compliance with Sierra Leonean land law when it comes to informing and

obtaining the consent of communities when leasing their territories. Furthermore, while in the company's project the lands are described as unproductive, the villagers emphasize their use of the land for producing food for their own consumption.

Rewilding Maforki seems different from the other companies mentioned in this section, in the sense that it was created with a focus on the carbon market, not timber. However, its project description shows that most of the plantations have also the purpose of commercializing the wood, just like Miro's. In addition, it is no coincidence that 49 percent of the company that holds Rewilding's shareholding control (Aristeus LTD) is being transferred to other companies including Developers Africa LTD, which in turn is owned by people who are also on Miro's Board.

WOMEN EXCLUDED FROM DECISIONS

The investigation into Rewilding Maforki's project in Sierra Leone also exposes a pattern that is not limited to carbon offsetting projects. When outside companies come in and try to impose their will, women are often excluded from discussions and decisions around land. The investigation highlights that most women were never asked about nor did they give their consent to Rewilding Maforki's project. This shows how project developers benefit from or even take advantage of dominant patriarchal structures that exclude women from decisions over land even where women depend on that land to grow food.

Once again, projects of this kind immediately raise concerns. First, there are clear signs that they are not 'additional' projects. Second, projects of such magnitude in terms of the number of communities involved – and which frequently claim to have a "robust FPIC [Free, Prior and Informed Consent]" and a "participatory, inclusive, and collaborative approach" – are usually just tossing out catchphrases that are nothing more than buzzwords, as described in Rewilding Maforki's project.

“INDEPENDENT” projects are also a problem

Projects aimed at carbon markets and registered with private certification mechanisms such as Verra are not the only problem. Some of the largest companies in the world are investing in “independent” industrial tree plantations to offset their emissions. For example, in the Republic of Congo, communities have nowhere to grow their food because oil giant TotalEnergies is taking over the land to set up 40,000 hectares of tree monoculture so that their damages (and profits) from oil and gas extraction can continue under the argument that they are making up by planting trees.

World Rainforest Movement

- (1) Verra, 2024. [Verified Carbon Standard, project ID 3350, project description documents](#).
- (2) This typology does not seek to account for the diversity of projects, but to identify certain patterns that group a significant number of projects together. There are certainly projects that do not fit into this typology, for example non-commercial restoration projects, but as they are less significant in number and scale, they did not receive priority in the analysis.
- (3) Zeit Online, 2023. [Phantom Offsets and Carbon Deceit](#).
- (4) Bernal, B., Murray, L.T. & Pearson, T.R.H., 2018. [Global carbon dioxide removal rates from forest landscape restoration activities](#). Carbon Balance Manage 13, 22.
- (5) WRM, 2023. [What you need to know about Suzano Papel e Celulose](#).
- (6) Suzano, 2024. Value obtained from the sum of the net income of the four quarters of 2023, with a BRL-USD exchange rate of 5-1. Data available [here](#).
- (7) [The pampa biome can have up to 57 plant species per square meter, more than what is found in the Amazon](#). National Geographic, 2020.
- (8) REDD-Monitor, 2022. [German supermarket Aldi buys carbon offsets from monoculture eucalyptus plantations in Uruguay in order to claim that its milk is “carbon neutral”](#).
- (9) Quantum Commodity Intelligence, 2022. [Guanaré forest project is 'fundamentally unadditional'](#).
- (10) Global Carbon Trace, 2024. “Project document”, [available here](#).
- (11) For more information, see WRM’s article [“Carbon Certification: The Emperor’s New Clothes”](#).
- (12) This was confirmed by several other community members. See the report by Aftonbladet, 2024, [here](#).
- (13) Andersson, E. & Carton, W., 2017. [Sälja luft? Om klimatkompensation och miljörättvisa i Uganda](#). For a good summary of the case, see the article by REDD-Monitor [here](#).
- (14) See more in the booklet [“12 tactics palm oil companies use to grab community land”](#) launched by Grain, WRM and an Alliance of community and local organisations in 2019.
- (15) The Oakland Institute, 2014. [The Darker Side of Green: Plantation Forestry and Carbon Violence in Uganda](#). For more information on the case see also the reports “Evicted for Carbon Credits: Norway, Sweden, and Finland Displace Ugandan Farmers for Carbon Trading” (2019) and “Carbon Colonialism: Failure of Green Resources’ Carbon Offset Project in Uganda” (2017), available at the Oakland Institute’s webpage.
- (16) WRM, 2022. [Arbaro Fund: A Strategy to Expand Industrial Tree Plantations in the Global South](#).
- (17) Source Material, 2024. [‘Saviour of carbon markets’ faces questions over African land rights](#).
- (18) HEKS/EPER, SiLNoRF, 2024. [Controversial carbon offset project spells hardship for local communities](#).

International, regional and national initiatives are promoting tree plantations for the carbon business

Several initiatives have done their part in promoting tree plantations for carbon offsets. Regardless of whether these initiatives are led by the corporate sector, NGOs, national governments, or oil companies, polluting corporations benefit from the diversion of attention away from the need to curb fossil fuel emissions.

At the international level, corporate lobbies and major conservation NGOs push States and international negotiations to push for tree plantations as a legitimate compensation mechanism for carbon emissions.

The Africa Carbon Markets Initiative

One example is the Africa Carbon Markets Initiative (ACMI) launched in 2022 during the UN Climate Summit. The initiative aims to accelerate the growth of Africa's voluntary carbon markets, channelling "billions of climate financing into Africa" and establishing "carbon credits as one of Africa's top export commodities."⁽¹⁾

In its roadmap, ACMI points to tree plantations in cropland and other so-called "forestry and land use" projects as those with the greatest potential for generating carbon credits. It also identifies 10 countries as the most relevant to this type of project: Democratic Republic of Congo, Madagascar, Republic of Congo, Angola, Zambia, Nigeria, Cameroon, Central African Republic, Mozambique and Sudan. The initiative also claims that there is "significant potential to scale up carbon credit generation with smallholder farmers," which currently live and work on around 80 percent of Africa's agricultural land.⁽²⁾

The ACMI is sponsored by several international donor agencies and philanthropic organisations and has "corporate non-profits" such as Verra and Conservation International on its Steering Committee. The fact that the initiative is underpinned by analyses conducted by McKinsey, a US-based consulting firm with vested interests in expanding voluntary carbon markets in Africa, is worthy of note.⁽³⁾ The firm has also strongly influenced the Africa Climate Summit, where carbon offsetting and financing has also been pointed out as major direction.⁽⁴⁾

Hundreds of African civil society organisations have denounced carbon markets as the new scramble for Africa, exposed the western interests foregrounded by such "climate positive" agendas, and called for the rejection of the polluter schemes.⁽⁵⁾

The African Forestry Impact Platform

The financial sector and investment firms are major drivers of the current expansion of tree plantation ventures in the global South for offsetting carbon emissions of the Global North. One example is the US\$ 200 million pledged by Norway's Norfund, Finland's Finnfund, and the UK's British International Investment to the African Forestry Impact Platform (AFIP, which is actually a private fund rather than a platform), following a commitment made during COP 26 to expand the "sustainable forestry" sector.(6)

AFIP was launched by New Forests (which is different from the New Forests Company mentioned in [What are the main types of tree plantation projects for carbon business](#), on this bulletin). The entity is the world's second-largest forestry manager and investor, and is owned by Japanese financial groups Mitsui and Nomura Holdings, closely related to the fossil fuel industry.(7) AFIP's "nature-based solutions" plan is to develop industrial tree plantations aimed at carbon markets, hence guaranteeing large amounts of funding from "development" finance institutions. As a result, AFIP recently bought Green Resources, as mentioned in [What are the main...](#), on this bulletin.

The Trillion Trees initiative

Another example is the Trillion Trees idea, which was launched in 2018. Since then, it has been endorsed by economic and political elites represented by the World Economic Forum, the United Nations Environmental Programme (UNEP) and major conservation NGOs such as WCS, WWF and BirdLife. The naive and dangerous initiative of massive tree planting as a solution to climate chaos fits very well with the interests of several of the world's largest corporations and billionaire donors and has inspired them to get on board. (8)

Oil companies say thanks

Distractions such as Trillion Trees are very effective at diverting attention from the need to curb fossil fuel emissions. It is worth remembering that not long after the Trillion Tree idea appeared, [Eni](#) and [Shell](#)—the two largest buyers of carbon credits in Africa (9)—announced that they would set up their own tree plantations to offset their emissions. The Colombian company Ecopetrol has joined the Trillion Tree campaign, [pledging](#) to plant 20 million trees and offset 2 million tons of carbon between 2020 and 2030.

The proposal has inspired significant criticism within the scientific community since it was launched as likely the most effective way to limit the rise of carbon dioxide

concentration in the atmosphere, diverting the attention from the imperative need to reduce fossil fuel emissions.(19) Nevertheless, this criticism is overshadowed by the widespread favourable media coverage a result of the financial support raised by the authors (11) of the misleading idea that “massive afforestation and the resulting timber industry can create hundreds of millions of jobs and wealth in the global South.”(12) With the growth of carbon markets, initiatives within the scope of the trillion trees illusion are increasingly associated to carbon offsetting.(13) In 2023, more than one third of the corporations promising to plant trees under the [1t.org](https://www.1t.org) campaign were doing so to offset emissions.(14)

Initiative 20 × 20

Initiative 20 X 20 is being developed in Latin America and the Caribbean. Its goal is to protect and restore 20 million hectares. It encompasses several tree plantation projects developed to generate carbon credits for the voluntary carbon market. Calling for “finance for restoration and conservation to bring about net-zero carbon emissions across the region,”(15) it is supported by national governments from the Global North (donations from Germany, Norway, and Luxembourg), corporations such as Cargill and Nestlé (through Nespresso), carbon market companies such as South Pole and Ecoscurities, among others. Once again, the net-zero illusion encourages movement in the wrong direction by strengthening and benefiting from the misleading idea of offsetting fossil fuel emissions by planting trees.

National policies

Many national governments and lawmakers have done their part to promote tree plantations as a way to offset carbon emissions. Examples include:

In New Zealand, the state emissions trading scheme rewards landowners who invest in pine monocultures. This is a central piece of the government’s roadmap to emissions reduction. Such government support has driven a sharp increase in such monocultures; this has dissolved communities and caused huge social and cultural losses.(16)

Paraguay’s Proeza project guides the State’s institutional policy for forestry and is based on the expansion of industrial eucalyptus plantations to meet the country’s National Determined Contributions (NDC).(17) Projects have been financed by the Green Climate Fund and carried out through the Arbaro Fund, whose plantations have been exposed for abuses and harm to communities in the South American and African countries where it operates.(18)

India’s parliament approved the Forest Conservation (Amendment) Bill in 2023, which lowers restrictions for establishing tree plantations on certain types of land. This could trigger a considerable expansion of afforestation and reforestation projects under the guise of planting trees to help the country achieve its net-zero emissions target by 2070.

Estimates indicate that India would have to change the way nearly 60 percent of its land is used in order to meet those goals.(19)

These are just a few examples of national government initiatives that promote and encourage industrial tree plantations as a way of hitting their offsetting targets. As the number of countries with initiatives to regulate their national carbon markets grows, it is safe to expect the number of national policies going into this direction will continue to rise, especially in the global South.

- (1) [Africa Carbon Markets Initiative, 2022. Roadmap Report by ACMI](#), pp. 8 and 25.
- (2) *Idem*, p. 37.
- (3) Power Shift Africa, 2023. [The Africa Carbon Markets Initiative: a wolf in sheep's clothing](#).
- (4) REDD-Monitor, 2023. [Africa Climate Summit: "It looks like a trade conference on carbon credits"](#).
- (5) Real Africa Climate Summit, 2023. [Over 500 civil society organisations issue an urgent call to reset the focus of the Africa Climate Summit](#).
- (6) Reuters, 2022. [Norfund, BII, Finnfund invest \\$200m in African forestry fund](#).
- (7) The Oakland Institute, 2023. [Green Colonialism 2.0: tree plantations and carbon offsets in Africa](#).
- (8) REDD-Monitor, 2020. [One trillion trees. A naive and dangerous distraction from the need to leave fossil fuels in the ground](#).
- (9) Africa Carbon Markets Initiative, 2024. [Carbon Markets in Africa \(online\)](#), section 2.3 "Who are the key players in the VCM".
- (10) One of the main scientific articles supporting the idea ("The global tree restoration potential," published in *Science* in 2019) does not even mention fossil fuel emissions as a problem. Later that same year, the magazine published four technical comments and three letters with criticism to the article, which can be accessed at [Science, volume 366, issue 6463, 2019](#).
- (11) REDD-Monitor, 2019. [Remember the headlines: Tree planting is our "most effective climate change solution"?](#)
- (12) Trillion Tree Declaration, 2018. [A trillion trees to fight the Climate Crisis](#).
- (13) Examples include [the carbon offset donation section of Trillion Trees Australia](#) and [the pledge by City Forest Credits](#).
- (14) Financial Times, 2023. [The illusion of a trillion trees](#).
- (15) Initiative 20x20, 2024. Members. <https://initiative20x20.org/members>
- (16) The Guardian, 2023. [New Zealand falls out of love with sheep farming as lucrative pine forests spread](#).
- (17) Global Forest Coalition, 2023. ["The Devil's Totality": Paraguay's Struggle Against Agribusiness and Monoculture](#).
- (18) WRM, 2022. [Arbaro Fund: A Strategy to Expand Industrial Tree Plantations in the Global South](#).
- (19) Dooley, K., et al., 2022. The Land Gap Report, p. 25. <https://landgap.org/>

RECOMMENDED

There's Something Strange in the Air

The podcast “Faroeste carbono” tells the story of how Carbonext, one of the largest carbon offset companies in Brazil, convinced quilombola communities in the state of Para in the Brazilian Amazon to sign a contract that restricts their autonomy and food production. Community members talk about the unfulfilled promises of carbon money and how the project is dividing people. Access the [Prato Cheio - O Joio e o Trigo podcast here](#) and [read the story in Portuguese here](#).

Trees for Global Benefits: “Climate neutral” burgers in Sweden, starvation in Uganda

An investigation shows that While companies like the Swedish fast food chain Max Burgers AB sells ‘carbon neutral’ burgers, a carbon offset project in Uganda is pushing families into hunger. Farmers who signed up for the carbon project were promised income from tree planting and now they are locked into long term contracts that don’t allow them to produce enough food. [Here you can read](#) a REDD Monitor article about the investigation, in English.

Tree planting offset project in Sierra Leone: USD 2.5 million from BP but no community consent

A report documents how a tree planting carbon project in Port Loko, Sierra Leone is violating the country’s community rights laws and risks locking families into 50-year contracts. The British oil company BP has already paid USD 2.5 million to Carbon Done Right, one of the companies behind this tree plantation and carbon offset project. Here you can read a Swiss Church Aid HEKS/EPER article about the report, in [English here](#); in [German here](#); and in [French here](#).

Carbon credits linked to illegal land grab and timber laundering in the Brazilian Amazon

An investigation exposed how carbon credits from three of the largest carbon offset projects in the Brazilian Amazon are linked to a criminal operation. Well-known companies such as Gol airline, Nestlé, and Toshiba all bought carbon credits from these projects and used them to advertise their polluting products as ‘CO2-neutral’. Here you can read Sumaúma article about the investigation in [English here](#), in [Portuguese here](#), in [Spanish here](#).

FROM THE WRM LIBRARY

REREADING. The Carbon Market: Planting More Problems

We recommend rereading the publication “The Carbon Market: Planting More Problems,” written by Larry Lohmann in 2000. This document analyzes the state of the climate crisis and the different approaches to address it. Among its main criticisms, the publication shows that no matter how exaggerated the level of carbon emissions is, any disparity becomes legitimized with the tree plantation approach to emissions offsets. Furthermore, tree plantations allow for greater accumulation of money. Meanwhile, communities and territories in the Global South suffer from the consequences of this model. [Read the publication here.](#)

WRM SURVEY 2024

WRM Survey 2024: Your feedback is important to us!

Every two years we conduct a survey within the WRM network about the content of our bulletin and other materials, including booklets, briefings, videos and podcasts. Your suggestions and constructive criticism are essential for the planning and production of these materials. We kindly ask that you respond to [this brief questionnaire here](#). It should take no more than 10 minutes of your time. Thank you!

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