02

Introduction to Carbon Markets

A **carbon market** is a (non-physical) marketplace where **carbon credits**[f] are traded. Since these markets do not exist in one geographical location, sellers and buyers are very unlikely to ever meet in person, unlike a market where people go to buy food, for example.

There are several **different types of carbon markets**, which use different terminology and have different rules and actors. The details are complex but in general, two main types are: (1) markets set up and governed by states (or a group of states), and (2) markets that do not have a central regulator. Before getting into what is bought and sold in carbon markets, let us discuss briefly what these different types of markets are. It may be useful for your people and community to know what types of carbon markets exist, because **the type of market will determine what actors are involved, who is responsible for overseeing it, and what options your community might have to raise complaints** if carbon credit projects or programmes encroach on your rights.

The first type of market is often referred to as a **regulatory market**. Some countries have set up regulatory markets to put limits on the amount of CO2 emissions by companies operating there. In many of these markets, each company gets an allowance telling them how much CO2 they can emit. If company A does not use its allowance, it can sell the extra allowance as a carbon credit to company B, who wants to emit more CO2 (these are often referred to as **cap-and-trade markets**, because there is an overall limit (cap) on emissions and the participants in the market trade between themselves to stick to that overall limit).[28] Many regulatory carbon markets also allow for the companies that have obligations to reduce their emissions, such as company B, to buy **carbon credits** from actors that are not covered by the cap. Company B could then use the carbon credit to compensate for (**offset**) emissions it is releasing above its allowance.[29] **Carbon credits** and **offsets** are discussed later in this explainer. In a regulatory market it would usually be the national government – or a group of governments – overseeing the market that is responsible for addressing any rights violations that are linked to the market.

The other type of market is a **voluntary carbon market**. Even if globally there is not really only one such overall market, it is very common to hear people talk about '*the* voluntary carbon market'. In the voluntary carbon market, those that buy carbon credits do not do so because they have an obligation to reduce their CO2 emissions, but because they choose to participate. There is no overall central regulator. Instead there are various **carbon credit standard bodies** who issue **carbon credits** – via **carbon registries** – that can then be bought by countries, organisations, companies or even individuals.[30] Box 5 provides more information about the different actors involved in the voluntary carbon market. If violations of human rights occur in the voluntary carbon market, communities might be able to complain to the relevant carbon credit standard body (though in practice, these complaints processes can be hard to access or are ineffective).[31]

f Depending on the type of market, other terms can also be used for what is sold, including 'permits', 'allowances' and 'emission reduction units'. The idea behind each of these is similar.

At the time of writing (in 2023), countries are also working towards setting up two different **international carbon market mechanisms overseen by the UN** that will regulate the emissions of countries themselves as well as other actors, such as companies. These efforts are happening under the Paris Agreement (which is a global agreement on climate change) and specifically Article 6 of that agreement. Article 6 is discussed in Box 4 below.

Box 4: Article 6 markets

The Paris Agreement (2015) – adopted by most countries in the world – is a binding international agreement aimed at addressing and reducing the impact of climate change.[32] A big focus of this agreement is to limit how much hotter the earth will get by reducing greenhouse gas emissions. Each signatory country must submit a plan to the UN explaining how they will contribute to reducing emissions. These plans are called **Nationally Determined Contributions, or NDCs for short**. For the purpose of these explainers, there is one article of the Paris Agreement in particular that is important to mention. That is **Article 6**.

Article 6 says that the signatory countries can **'cooperate' with each other to implement the climate targets they have set out in their NDCs**. Article 6 establishes three different tools for cooperation. Two of these are carbon markets. One, often referred to as the **Article 6.2 market**, allows states who have reduced emissions more than they promised in their NDC to sell carbon credits to countries that are not able to meet their NDC targets through emission reductions in their own countries. This is a similar idea to the regulated cap-and-trade carbon market described above. The other, often described as the '**sustainable development mechanism' or 'Article 6.4 market'**, will allow for carbon credits generated anywhere in the world to be sold and bought by both states and private sector actors like companies, to fulfil their climate targets and commitments.[33]

Even though there has been progress on defining the rules for these carbon markets, with an Article 6 'rule book' finalised at COP26 in 2021,[34] much still remains to be clarified when it comes to rules, methodologies and governance that will apply in these markets. For example, there are concerns that clear and robust safeguards for the protection of the rights of indigenous peoples – such as rules ensuring that carbon credits sold in these markets have not been produced in violation of indigenous peoples' rights to lands, territories and FPIC – do not yet exist (as of July 2023).[35]

Advocacy opportunity

It may be useful for you and your community to know that the governance body of the article 6.4 market, known as the **Supervisory Body**, is currently looking to engage the Local Communities and Indigenous Peoples Platform (LCIPP) of the UNFCCC and to launch a consultation for public inputs on how the article 6.4 market should consider "matters related to Indigenous Peoples and local communities".[1]

[1] See agenda item 3 of the Supervisory Body meeting notes: https://unfccc.int/sites/default/files/resource/a64-sb006_0.pdf

In recent negotiations about how to implement Article 6.4 it has been decided that there will be one type of credit that **cannot be used to offset the emissions of the buyer**, but will represent a way for the buyer to contribute financially to activities that reduce greenhouse gas emissions. These credits are referred to as **mitigation contribution units**.[36] This type of credit could potentially address some of the environmental concerns around carbon offsetting discussed in Explainer 4.

What are carbon credits?

Let us now come back to what is being sold in carbon markets. **Carbon credits are claimed to represent a certain amount of greenhouse gas being removed, or prevented from being released, into the atmosphere that otherwise would have been in the atmosphere**.[g] As mentioned earlier, it might be helpful to think of each credit as a piece of paper that represents the amount of greenhouse gas that was removed or prevented from going into the atmosphere. Carbon credits are like a currency: they can be bought and sold on a carbon market for money. We cannot see or touch carbon credits because they are an idea rather than something physical.

There is more than one way to create a carbon credit.[h] However, the type of credits that are most important for indigenous peoples and communities to know about are those that are created or 'generated' when someone (it could be a government or company, or even a community) makes a **promise that they will take certain actions** to keep or remove one ton of CO2 from the atmosphere (or another type of greenhouse gas).[i] It is important for indigenous peoples and communities to know about these types of credits because the *actions* taken to generate them can affect you and your community's rights. These kinds of credits are sold in the voluntary carbon market (they are also sometimes allowed in regulated markets – see example with company B above).[37]

In the voluntary carbon market, the promise made by those who create the credits is supposed to be checked by a **carbon credit standard body** and by external actors (**auditors** or **verifiers**). If they agree the actions taken have kept or removed one ton of CO2 from the atmosphere, then a credit is created and sold.[38] The buyer of the credit then uses it as proof that they are taking action to fight climate change.

When the carbon credit is used by the buyer to compensate for its own carbon emissions (for example by a company that is burning fossil fuels), then it works as an 'offset' and is often called a **carbon offset credit**. An offset credit is the idea that a ton of CO2 that will be emitted by the buyer can be cancelled out, or 'offset', by the credit that they purchase.[39] It should be noted that carbon credits do not have to be used that way. Buyers can also simply buy carbon credits to support an action that someone is taking to fight climate change. But in reality, carbon offsetting is the most common reason buyers buy carbon credits.[40]

There are many types of projects that claim to create or generate carbon credits, including those that produce renewable energy or use technology to capture carbon from the sky and store it in the ground.[41] These explainers, however, focus specifically on carbon credits created from forests. These are often called '**forest carbon credits**'. Forest carbon credits are created through taking actions that seek to protect, restore or plant new forests. Some forest carbon projects claim to **avoid** or **reduce** greenhouse gas emissions that otherwise would have been emitted, others claim to **remove** emissions from the atmosphere.[42]

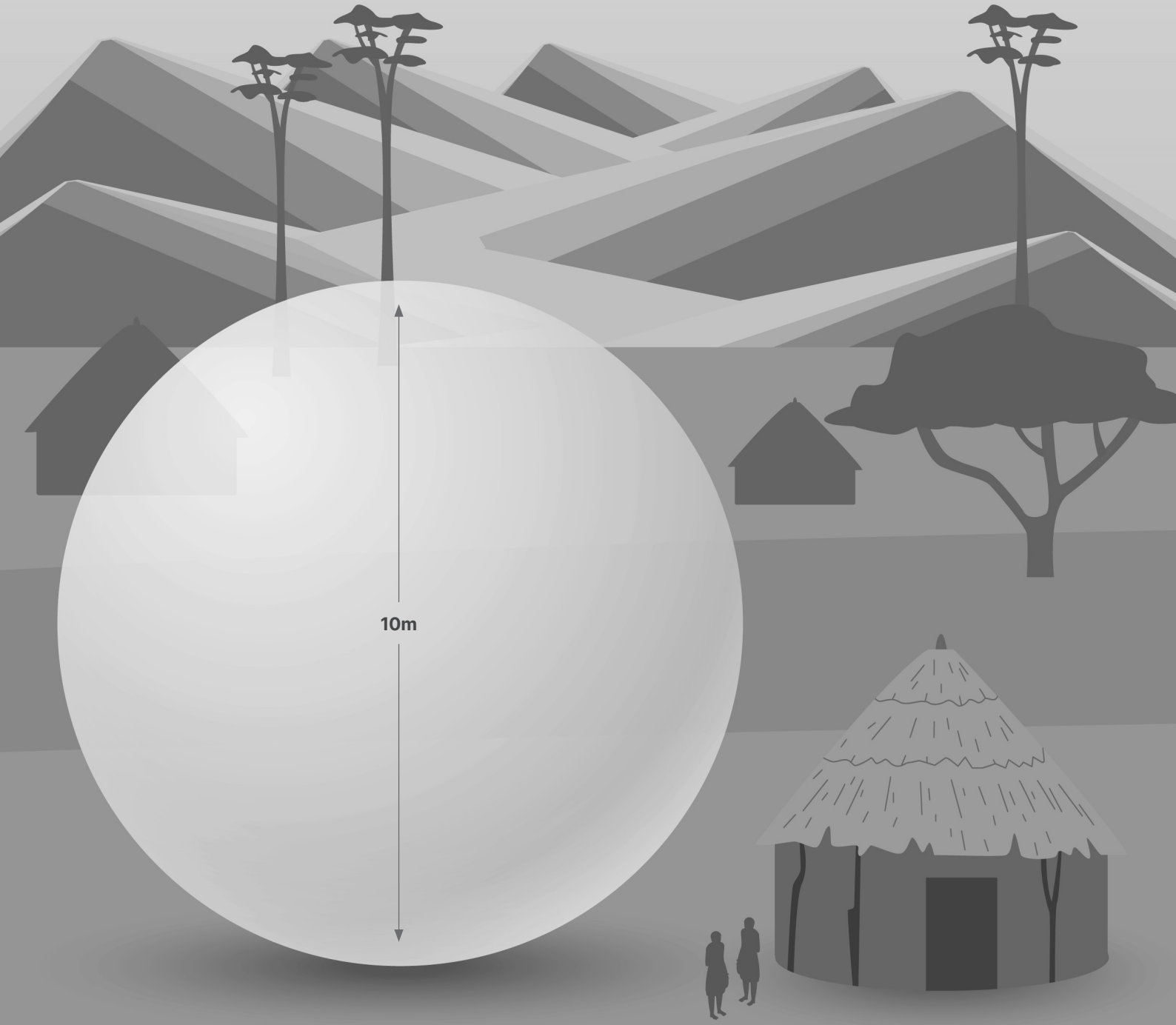
g As discussed in Explainer 4, in reality, carbon credits do not always represent such removal or prevention.

h In cap-and-trade markets, credits (they are often called allowances) are created when the regulator sets a limit on the overall emissions and distributes the allowances (credits) to the regulated companies that they can trade between themselves. We will not discuss these types of carbon credits in more detail because indigenous peoples and communities are unlikely to be impacted by these types of credits. That is because these credits are not *created* through taking actions to reduce or prevent greenhouse gas emissions.

i A credit can also stand for the avoided/reduced emission or removal of other greenhouse gases that cause the same negative impact on the climate as one ton of CO2.

One ton of CO2

This is one way to imagine a ton of CO2 that is claimed to be kept or removed from the atmosphere through an activity that creates a carbon credit.



As discussed later, in Explainer 4, the calculation of what volume of greenhouse gas emissions an activity actually avoids, reduces or removes is complicated and contentious. Whether credits are created in a way that respects the rights of indigenous peoples is another contentious topic that is receiving much attention in the global media. In response to some of these concerns, a lot of carbon market initiatives have developed that seek to define what '**high-quality**' and '**high-integrity**' credits should look like ('high integrity' is a way to say that the credits were generated in a way that respects rights and that does truly lead to climate benefits).[43] Some of these initiatives include indigenous organisations or representatives.[44]

Box 5: Who are the actors involved in voluntary carbon markets?

The buyers in the voluntary carbon market can be corporations, governments and individuals, among others. As mentioned earlier, in the voluntary market, the buyers do not buy credits because they are required to, but often instead because they have made a commitment or **pledge to go 'net zero' or 'carbon neutral'**. This means that these buyers have promised to make sure that – on balance – they do not contribute extra greenhouse gases to the atmosphere.[45] Importantly, this does not mean that they plan to emit zero greenhouse gases. In practice, most of the buyers in voluntary carbon markets are companies that emit a lot of CO2 from burning fossil fuels, including oil companies and airlines.[46] 'Net zero' and 'carbon neutral' are key words because they indicate that the buyers are trying to balance out their emissions with **offsets**. This is so that they can claim they have not contributed to global greenhouse gas emissions overall, without necessarily having to reduce the emissions from their own activities to zero.[j] As explored in Explainer 4, there are many critiques of carbon offsets.

The **providers** or **sellers**[k] in voluntary carbon markets can be governments, companies, organisations or communities who have protected their forests, or otherwise developed projects or programmes that generate carbon credits.[47]

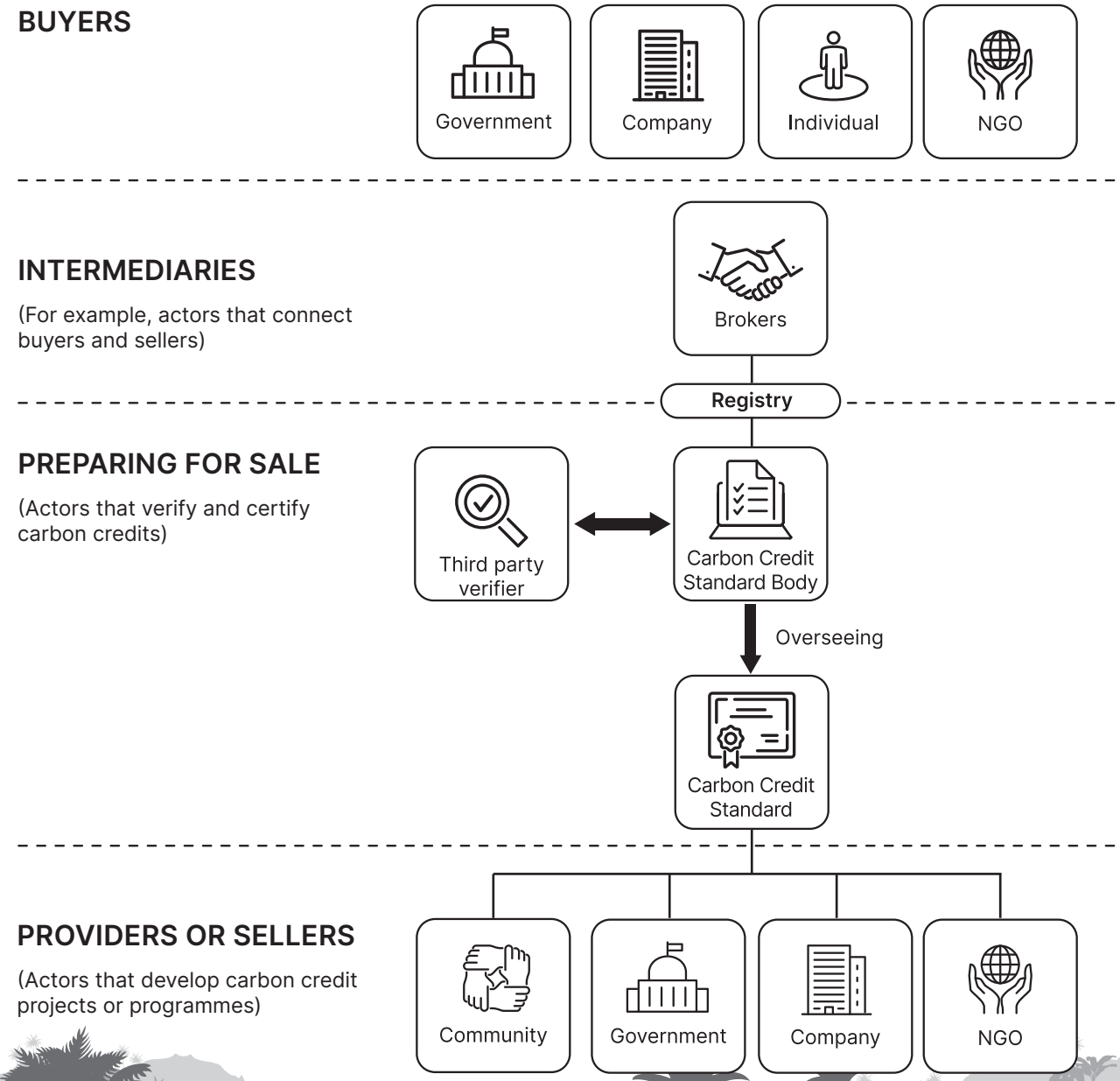
In addition to buyers and sellers, there are other actors in the voluntary carbon market that are important to know about. As mentioned above, there are **carbon credit standard bodies**, who are the ones that 'award', 'issue' or 'certify' carbon credits to projects and programmes that they judge comply with the specific rules of their carbon credit standard.[48] One such body that is getting a lot of international attention is ART (Architecture for REDD+ Transactions) (ART is discussed in Explainer 5). Before these bodies certify credits, it is also common that the seller's compliance with the crediting standard is checked by a **third-party body** (often referred to as an 'auditor' or 'verifier').[49] After credits are checked by this body, they are put on a **carbon registry** where buyers can see that they are for sale.

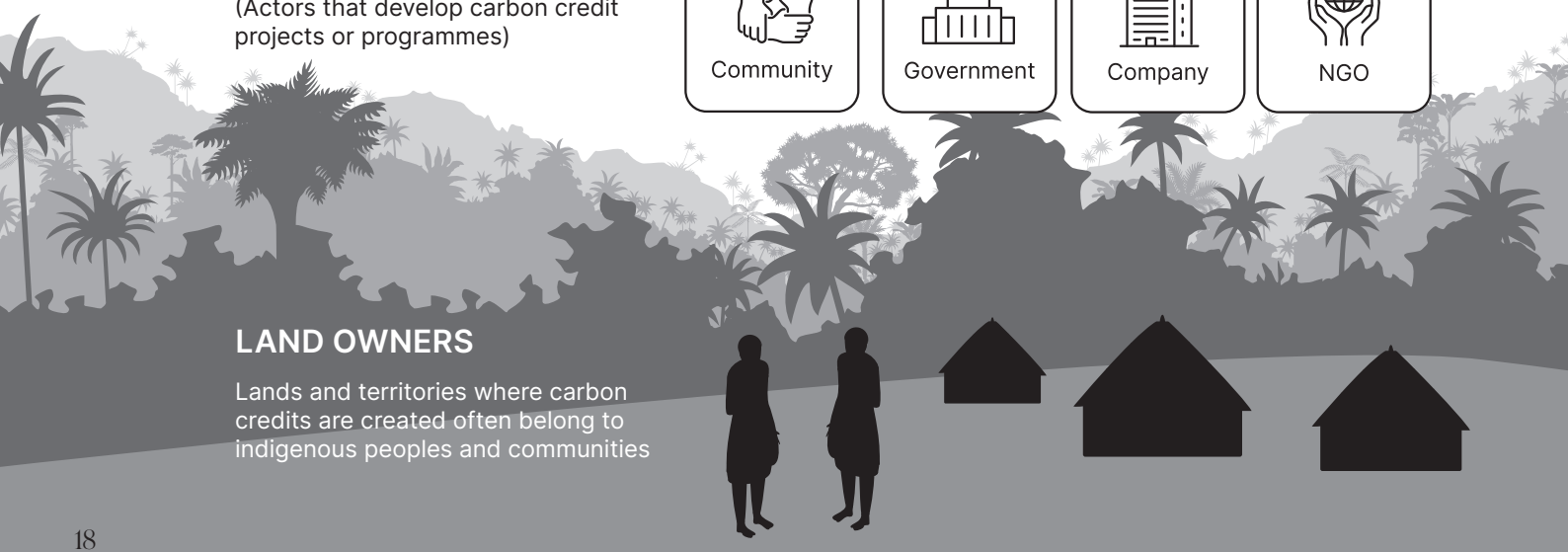
j Some initiatives do recommend to companies that serious cuts must be made in the emissions from their own operations and value chains before they can buy carbon offsets for emissions that they are not able to cut. However, it is up to companies themselves whether they want to align themselves with such guidance.

k Sometimes these project developers sell carbon credits directly, and other times there are intermediaries who are responsible for actual sale of the carbon credits.

Actors and stages in the voluntary carbon market

This shows a simplified example of what types of actors are involved in the voluntary carbon market and at what stages. The page is best read from the bottom up: It shows that many carbon credits have their origin in indigenous peoples' lands and territories (stored in their forests).





LAND OWNERS

Lands and territories where carbon credits are created often belong to indigenous peoples and communities

Why are carbon markets and carbon offsetting developing?

This question is answered differently by different actors. Advocates for carbon markets and carbon offsetting as tools to fight climate change argue that they enable cooperation between different actors. They argue that they make more funding available through the buying and selling of carbon credits. This, they reason, will make it easier, cheaper, quicker and more likely for the world to reach agreed climate targets, to avoid the most dangerous impacts of climate change.[50]

When it comes to forest carbon specifically, advocates for carbon markets often argue that these markets are **essential to provide the necessary financing** for actions to protect forests. They argue that many countries have the possibility of taking actions that would protect forests, but they lack the resources to do so.[51] Carbon markets could provide that financing, including financing from private actors like companies. Carbon markets, they say, also make it economically beneficial for countries and communities to protect forests.[52] This happens when buyers in a carbon market pay sellers for carbon credits. All of this, advocates argue, helps fight climate change, while directing much needed money to protecting forests. Advocates also argue that carbon markets can benefit the communities whose land is being used to generate the carbon credits, by raising financial resources that can go, in part, to them.[53]

Those who are sceptical or oppose carbon markets and carbon offsetting argue that they do not actually help address climate change or benefit those who protect forests.[54] Instead, they allow countries or companies to continue the polluting activities that contribute to climate change. Critics argue that carbon markets that allow offsetting are developing because they are an easy way for companies and countries to look like they are taking action on climate change without really changing their behaviour. Instead of reducing the amount of fossil fuels they burn, or reforming the economic system that created the climate crisis, these companies and countries can claim they are 'offsetting' their pollution by paying for someone else's efforts to cut greenhouse gas emissions.[55] These critiques are discussed in more detail in Explainer 4, including the serious concerns that, in practice, carbon offsets are not actually reducing overall greenhouse gas emissions. Many opponents of carbon markets also raise concerns about the human rights violations carbon credit projects can cause, including of indigenous peoples' right.[56]

Of course, there is nuance in these positions. Many advocates for carbon markets acknowledge that some past carbon credit projects have led to human rights violations and failed to reduce greenhouse gas emissions. They may argue for higher standards in carbon markets in response to these problems. Those who oppose carbon markets and offsetting altogether, however, often stress that the problems are so profound that these markets should not exist at all.

Further Resources:

- Human Rights Watch. *How Do Carbon Credits Work?* https://www.youtube.com/watch?v=n30rj0--SgU&t=12s
- Climate Focus. *The Voluntary Carbon Market Explained*. https://vcmprimer.org/

Endnotes

28 UN Development Programme (UNDP), "What are carbon markets and why are they important?" May 18, 2022, https://climatepromise.undp.org/news-and-stories/what-are-carbon-markets-and-why-are-they-important.

29 See for e.g., "California Air Resources Board's Process for the Review and Approval of Compliance Offset Protocols in Support of the Cap-and-Trade Regulation," May 2013, http://ww2.arb.ca.gov/sites/default/files/cap-and-trade/compliance-offset-protocol-process.pdf.

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32 UNFCCC, "Paris Agreement," accessed September 11, 2023, https://unfccc.int/process-and-meetings/the-paris-agreement.

33 Jonathan Crook, "COP27 FAQ: Article 6 of the Paris Agreement explained," Carbon Market Watch, November 2, 2022, https://carbonmarketwatch.org/2022/11/02/cop27-faq-article-6-of-the-paris-agreement-explained/.

34 Steve Zwick, "Article 6 and its Glasgow Rulebook: the Basics," November 16, 2021, https://www.ecosystemmarketplace.com/articles/article-6-and-its-glasgow-rulebook-the-basics/.

35 Human Rights Watch, "COP28: Carbon Market Rules Should Protect Rights," March 7, 2023, https://www.hrw.org/news/2023/03/07/cop28-carbon-market-rules-should-protect-rights; Private communications with Forest Peoples Programme.

36 Gold Standard, "The Mitigation Contribution under Article 6: key understandings and what it means for the VCM," December 7, 2022, https://www.goldstandard.org/blog-item/mitigation-contribution-under-article-6-key-understandings-and-what-it-means-vcm.

37 Streck et al., Chapter 5, *VCM Primer*, Climate Focus, 2021, https://vcmprimer.org/chapter-5/.

38 Streck et al., Chapter 7, *VCM Primer*, Climate Focus, https://vcmprimer.org/chapter-7/. Note: sometimes projects seeking to create carbon credits are not checked in this way, but they still find actors that are willing to buy credits from them.

39 See generally, "Carbon Offsets: Last Week Tonight with John Oliver," HBO television program, 22 August 2022, https://www.youtube.com/watch?v=6p8zAbFKpW0.

40 See for e.g., DGB Group, "Market outlook: Net-zero pledges spark soaring demand for carbon credits," July 6, 2023, https://www.green.earth/press-releases/market-outlook-net-zero-pledges-spark-soaring-demand-for-carbon-credits; Streck et al., Chapter 9, *VCM Primer*, Climate Focus, https://vcmprimer.org/chapter-9/.

41 Duncan Clark, "A complete Guide to Carbon offsetting," *The Guardian*, 16 September, 2011, https://www.theguardian.com/environment/2011/sep/16/carbon-offset-projects-carbon-emissions.

42 Vertree, "Carbon offsets – avoidance and removals," accessed September 12, 2023, https://vertree.earth/knowledge-centre/carbon-offsets-avoidance-and-removals/.

43 The Nature Conservancy, "Carbon Markets, Illustrated," December 20, 2022, https://www.nature.org/en-us/what-we-do/our-insights/perspectives/carbon-offsets-markets-illustrated/.

44 See for e.g., The Integrity Council for the Voluntary Carbon Market, "Meet the Team," accessed September 13, 2023, https://icvcm.org/who-we-are-all/.

45 Streck et al., Chapter 9, *VCM Primer*, Climate Focus, 2021, https://vcmprimer.org/chapter-9/.

46 Silvia Favasuli and Vandana Sebastian, "Voluntary carbon markets: how they work, how they're priced and who's involved," S&P Global Commodity Insights, June 10, 2021, https://www.spglobal.com/commodityinsights/en/market-insights/blogs/energy-transition/061021-voluntary-carbon-markets-pricing-participants-trading-corsia-credits#:~:text=Among%20the%202021%20new%20entrants,pledges%20to%20reduce%20carbon%20footprints

47 Favasuli et al., "Voluntary carbon markets," 2021.

48 Favasuli et al., " Voluntary carbon markets," 2021.

49 See for e.g., SCS Global Services, "Carbon Offset Verification," accessed September 13, 2023, https://www.scsglobalservices.com/services/carbon-offset-verification.

50 See for e.g., UNDP, "What are Carbon Markets", 2022; Discussion in Greenfield, "The 'carbon pirates,'" *The Guardian*, 2023.

51 See for e.g., Ecosystem Marketplace, "Why voluntary carbon markets for nature are needed right now," August 24, 2023, https://www.ecosystemmarketplace.com/articles/why-voluntary-carbon-markets-for-nature-are-needed-right-now/.

52 See for e.g,: Greenfield, "The 'carbon pirates,'" *The Guardian*, 2023.

53 Greenfield, "The 'carbon pirates,'" *The Guardian*, 2023.

54 See for e.g., New Energy Economy, "Opposing False Solutions," accessed September 13, 2023, https://www.newenergyeconomy.org/opposing-false-solutions.

55 See for e.g., Chris Greenberg, "Carbon offsets are a scam," Greenpeace, November 10, 2021, https://www.greenpeace.org/international/story/50689/carbon-offsets-net-zero-greenwashing-scam/.

56 See for e.g., New Energy Economy, "Opposing False Solutions."