From Carbon Offsetting to Climate Contribution



ClimateSeed

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In this guide we will cover what carbon offsetting is, the reasoning behind the shift of terminology from carbon offsetting to climate contribution, how to contribute and select climate contribution projects (carbon removal and avoidance), the role of these projects in the trajectory toward global carbon neutrality, and how to transparently communicate to engage with your stakeholders and inspire climate action.

1. Introduction to Climate Contribution

You may have already heard of carbon offsetting, a term that has been increasingly used in the field of corporate sustainability in recent years. But what exactly is carbon offsetting and how does it work? And more importantly, can carbon offsetting replace a company's emission reduction commitments to become more sustainable? To answer these key questions and bring more clarity to the subject of carbon offsetting, ClimateSeed has prepared a short guide to highlight how companies and organizations should act to contribute to global net-zero emissions.

a. What is carbon offsetting?

A carbon offset is defined as "any activity that compensates for the emission of carbon dioxide (CO_2) or other **greenhouse gasses** - GHG - (measured in carbon dioxide equivalents, CO_2e) by providing for an emission reduction elsewhere" (1). In other words, carbon offsetting is a mechanism through which individuals or organizations can support carbon avoidance or removal projects to compensate for their unavoidable emissions. This action is realized through the purchase of carbon credits, where 1 carbon credit corresponds to 1 tonne of CO_2 avoided or removed by the projects.

It is important to specify that carbon offsetting here refers to "**voluntary offsetting**", which includes "all the approaches adopted by players who voluntarily contribute to carbon removal and avoidance projects" (2), and must be distinguished from the regulated carbon market. In the regulated or "compliance" carbon market, negotiated during the Kyoto Protocol and established for the first time within the European Union in 2005, regulated companies (heavy polluting sectors) are legally required to respect a carbon emission cap set by the regulator. If one company wishes to exceed its cap, it needs to buy additional quotas or allowances to other companies within the scheme that have emitted less than their limit hence the fact that this market is defined as a "cap and trade" system (3).

The price of the carbon credit reflects not only the CO_2 capacity of the project but also other ecosystem services, the protection of biodiversity, social benefits, and the contribution to the UN Sustainable Development Goals that the emission reduction project achieves.

From Carbon Offsetting to Climate Contribution - A different perspective

Following the guidelines from the <u>Net Zero Initiative</u>, a new terminology was introduced. The concept of carbon offsetting has been replaced by the idea of climate contribution. This shift is explained by the fact that carbon offsetting refers to the idea of compensating the emissions of CO_2 , which has gained a negative connotation because it suggests the action of compensating for unfavorable behavior and because this lacks a common definition (4).

On the other hand, climate contributions refer to the support to carbon removal and avoidance as necessary climate action to contribute to the achievement of global carbon neutrality.

Climate contribution must be combined with emission reduction practices and done in parallel to them. The more an organization reduces its own GHG emissions and contributes to carbon removal and avoidance, the more it can contribute to the achievement of global carbon neutrality.

The support to projects does not compensate for any emission but it is seen as an additional, and necessary contribution to the achievement of global carbon neutrality. **Climate contributions can be an effective practice to improve an organization's sustainability strategy and contribute to achieving net-zero emissions at a global level.**

How can we reach global carbon neutrality?

Companies and individuals need to implement robust and comprehensive decarbonization and climate contribution strategies, starting with measuring carbon footprints, then reducing greenhouse gas emissions and parallelly, contributing to carbon removal or avoidance projects. The three steps being:



Step 1: GHG Measurement

For organizations:

The first step an organization can take to contribute to global carbon neutrality is to measure the **direct and indirect GHG emissions** generated by business activity (or part of it) in a specific timeframe. GHG emissions measurement at an organizational level follows precise rules. Several protocols exist to measure GHG, such as the GHG Protocol, which is the most widely used greenhouse gas accounting standard and is internationally recognized. The GHG Protocol divides greenhouse gas emissions into three scopes (**Scope 1, 2, and 3**), which account for direct company emissions and indirect company emissions from upstream and downstream activities. All greenhouse gas emissions are expressed in tCO₂e, tonnes of carbon dioxide equivalent, and include other greenhouse gases, methane (CH4), and nitrous oxide (N₂O) being the two main ones. A company's GHG emissions (Scope 1, 2, and 3) should be assessed once a year and are included in the sustainability or extra financial report of a company. In Europe by 2024 onwards, it will become mandatory for companies with 250 people and a 40 million turnover rate to publicly disclose all information on GHG assessments and potential social and <u>environmental risks</u> (5).

For individuals:

At an individual level, people can also assess their GHG emissions to have an understanding of the impact of their daily activities, routines, and consumption choices. A person's lifestyle, their dietary choices, their use of waste materials, how they commute, how often they travel by plane for work or leisure, etc. are all elements that have a significant impact on a person's carbon footprint. The first step for every individual to reduce their carbon footprint is to understand their impact on the planet and their sources of emissions.

Step 2: Climate Action

2.a GHG Reduction

For organizations:

At an organization level, measuring the GHG emissions will allow the organization to identify the major sources of emissions and define emission reduction objectives, plan and implement a reduction strategy to achieve them. The **Science Based Targets initiative (SBTi)** provides companies with emission reduction guidelines that are in line with the achievement of the IPCC's and Paris Agreement objectives.

According to SBTi, Scope 1, 2, and 3 targets must be consistent with a level of decarbonization required to keep global temperature increase below 1.5°C compared to pre-industrial temperatures (6). To reach this ambition, organizations should set medium and long term targets up to 2050. The SBTi recommends using "the most ambitious decarbonization scenarios that lead to the earliest reductions and the least cumulative emissions." (7). Reduction strategies vary depending on the sector and the type of company activities; however, some general guidelines can be identified. For example, to reduce Scope 2 emissions, the SBTi recommends companies to source renewable electricity suggesting a target of 80% renewable electricity procurement by 2025 and 100% by 2030 as thresholds. For Scope 3 reductions, supplier engagement is key as well as setting targets to influence the behavior of end-users.

ClimateSeed's expert consultants support companies in understanding SBTi and setting the right reduction objectives with the relevant reduction strategies for a transition plan.

For individuals:

At an individual level, people can take actions to reduce their emissions by changing their diet, their transportation modes, and their consumption habits. For example, reducing red meat consumption, choosing sustainable modes of transport (such as bicycles, electric vehicles, or simply walking) and buying second hand products are great ways to reduce our GHG emissions.

Step 2.b: Contribute to carbon removal and avoidance projects

As a parallel climate action to GHG reduction efforts, an organization should contribute to carbon removal and avoidance projects through the purchase of carbon credits from the **voluntary carbon market**.

Projects are certified to issue carbon credits and assess the amount of carbon avoided or removed by the project in a specific time period. Following the certification and the issuing of credits, monitoring and reporting activities are conducted to ensure the continuity of the projects. In turn, project activities can be monetized and carbon credits can be distributed and withdrawn by purchasers.

Carbon credits are usually issued every year. Third-party auditors verify the number of emissions absorbed or avoided by the project compared to a base-line, following methodologies established by international or national standards. Carbon credits are issued in public registries to avoid the risk of double-counting, which occurs when two or more organizations monetize and claim the same credit.

Project experts, such as ClimateSeed, support organizations in setting a climate contribution strategy, selecting and contributing to high-quality projects, and communicating about climate contribution.

Step 3: Communicate your climate action to your stakeholders

For climate contribution strategies to be successful, companies must be able to communicate about them in an accurate and precise way. A good and transparent communication strategy will reply to stakeholder's expectation, inspire more climate action, and protect an organization from greenwashing accusations and malpractices. Therefore, a valid communication strategy is to properly disclose information on supported projects, the environmental and social impacts generated as well as the co-benefits, such as biodiversity, and the SDGs targeted. Finally, using the right terminology to communicate about climate action is essential for a successful communication strategy.

Following the <u>Net Zero Initiative's guidelines</u>, here are some useful communication tips for an effective communication strategy:

- Avoid the terminology "carbon offsetting" and favor "climate contribution" instead. Projects supported through climate contributions go beyond carbon absorption or avoidance and achieve other environmental, economic, and social impacts that are aligned with the <u>United Nations' Sustainable Development Goals (SDGs)</u>, such as benefits on health, biodiversity, gender equality, and economic development. The more we contribute to high-quality emission climate contribution projects, the bigger the positive impact on climate and natural ecosystems.
- Communication must focus on the company's whole decarbonization strategy and consider climate contribution as a complementary action to strong reduction efforts. Avoid being vague and quantify your impact. Make sure to define the scope (1, 2, 3) your climate contribution accounts for.

- **Refrain from claiming your company to be "carbon neutral"** as a universal definition of carbon neutrality at a company level as companies can only contribute to global carbon neutrality.
- Disclose the number of credits purchased, in tCO₂e, to support an emission reduction project.
- Communicate about your climate action by following ISO 14021.
- Be careful when communicating about SDGs. Ensure you provide detailed information (KPIs) about how you target them.

Measure, take climate action, and communicate. These are the 3 steps for an effective strategy to work toward netzero emissions, which has today become a necessity to reach the 1.5°C goal established by the Paris Agreement.

b. What is global carbon neutrality or net-zero?

As per the IPCC's definition, carbon neutrality and net-zero are synonymous. Carbon neutrality is scientifically valid when it corresponds to a global equilibrium between anthropic emissions and anthropic absorption. As a result, an organization, a product, or a service cannot scientifically be carbon neutral, but it can contribute to global carbon neutrality.

Carbon neutrality is a global achievement and not an individual result.

c. How can organizations contribute to global carbon neutrality?

According to the IPCC, the objective of carbon neutrality is twofold; 1: reducing the total amount of GHG emissions at the global level and, 2: increasing our planet's absorption capacity.

Then, these two climate actions lead to an increase of avoided and absorbed GHG emissions:

- 1. Avoided emissions are emissions that did not occur in reality. They arise either when an organization changes some processes in its value chain to reduce emissions or when it contributes to projects, allowing future emissions to be avoided.
- 2. **Absorbed emissions** arise when our planet's GHG absorption capacity increases (e.g., with carbon removal projects).



In other words, global carbon neutrality requires an organization to reduce its own GHG emissions and contribute to carbon avoidance and removal projects with positive environmental and social impacts. These two actions must be done in parallel. Both are necessary for the achievement of global carbon neutrality.

According to the Science-based Targets Initiative's (SBTi) most recent <u>report</u>, contribution to carbon removal and avoidance (Beyond Value Chain Mitigation) plays a critical role in accelerating the transition to carbon neutrality (netzero emissions) at the global level. The report notes that reduction efforts may not be sufficient to meet the 1.5°C target set by the Paris Agreement due to residual emissions (emissions that companies cannot reduce due to technical or economic constraints).

Projects supported by climate contributions go beyond absorbing or avoiding carbon, and achieve other environmental and social impacts that are aligned with the United Nations' Sustainable Development Goals (SDGs), such as benefits on health, biodiversity, gender equality, and economic development.

It is important to underline that contributions to carbon removal and avoidance projects do not replace the need to reduce value-chain emissions in line with science (SBTi) and must always be combined with emission reduction practices to be effective (8).

d. What are climate contribution projects types?

Supporting climate contribution projects in the Voluntary Carbon Market also contributes to the United Nations Sustainable Development Goals. Contributing to a project beyond the carbon impact, looking at the impact on nature, community, people, plus the carbon. The co-benefits of the project are key (9).

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Avoided emissions

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2

Absorbed emissions

Absorbed emissions arise when our planet's GHG absorption capacity increases (e.g., with carbon removal projects).



Carbon avoidance or removal projects can be divided into seven categories:

1. <u>Forestry and Land Use</u>: projects encompass a range of initiatives focused on sustainable management and utilization of forests and land resources.

2. <u>Renewable Energy</u>: energy that is natural and self-replenishing. These are energies that are alternatives to fossil fuel electricity and heat production.

3. <u>Household and Community Devices:</u> centers around benefiting local communities, using their knowledge and having them involved in the decision making processes.

4. <u>Blue Carbon</u>: refer to Wetlands Restoration and Conservation (WRC) projects dedicated to protecting, rehabilitating, and conserving wetland ecosystems, including marshes, swamps, peatlands, and other ocean and coastal ecosystems.

5. <u>Waste Management:</u> projects focus on how we handle waste to minimize its impact on the environment and on human health. Instead of treating waste as the last part of the production chain, these projects are working with the waste to create sources of energy, reduce pollution and reduce carbon emissions. These projects adopt a more circular approach to climate solutions.

6. <u>Agricultural Land Management:</u> involves removing carbon from the atmosphere and sequestering it in the soil. Plants and crops make up part of the carbon cycle as they use CO_2 from the air during photosynthesis. When the plants and crops decompose, some of the CO_2 is stored in the ground and some is released back into the atmosphere.

7. <u>Transportation</u>: one of the largest contributors to greenhouse gas emissions. These emissions primarily come from burning fossil fuel for our vehicles, ships, trains and planes.



Project Example: Forest Conservation in Guatemala

The project is the world's largest grouped forest-based carbon project and aims to develop sustainable activities that restore the forest and ensure a better livelihood for people and their families.

The project is supporting individuals and communities to register and obtain land titles. Activities on the ground to develop sustainable livelihoods include working with local farmers on technical assistance, agriculture inputs, and routes to market for a variety of sustainably produced commodities. A core focus of the project is a community program to empower women and girls through access to health care and education.

KPIs:

60,000 ha of threatened forest protected

487 jobs created 24% held by women

30 High Conservation Species being protected

5.3 million tCO₂e



2. How to Select and Communicate Climate Contribution Projects

a. How to select a qualitative climate contribution project:

Companies should ensure they are supporting high-quality projects. Thus, the first element to consider is the project certification, that is if the project is certified by an international standard such as <u>Gold Standard</u>, <u>VCS</u>, <u>Plan Vivo</u>, or <u>Climate Action Reserve</u> or a national standard such as Label Bas Carbone in France. Once the project has been certified, it is verified periodically by a third party, so the standard can issue the relevant amount of carbon credits the project has absorbed or avoided for that period. Carbon credits to be considered high-quality should at least respect the following characteristics/criterias (10):

1. **Certified:** A project must be certified by an international or national standard to issue carbon credits. The standard differs depending on the project typology.

Here's the list of the most common international & national standards:

- Gold Standard
- VCS Verra
- <u>Plan Vivo</u>
- <u>Climate Action Reserve</u>
- American Credit Registry

Third-party auditors verify the number of emissions absorbed or avoided during a specific period by the project compared to a baseline (base scenario), following methodologies established by the standards. Then the standards can issue the carbon credits. All credits generated by a certified project are accounted for on the standard's registry (each standard has its registry).

Following the Certification and the credit issuance, periodical monitoring and reporting activities are performed to ensure the continuity of the projects.

- 2. **Real:** All emission reductions and removals and the project activities that generate them shall be proven to have genuinely taken place.
- 3. **Measurable:** All emission reductions and removals shall be quantifiable, using recognized measurement tools (including adjustments for uncertainty and leakage) against a credible emissions baseline.

- **3.** Additionality: The project needs to be issuing carbon credits in a threatened area so that the added value is real. Financial additionality, which means that the project could not exist without the issuance of carbon credits, is also needed.
- **4. Independently verified:** All emission reductions and removals shall be verified to a reasonable level of assurance by an independent and qualified third party.
- **5. Unique:** No more than one carbon credit can be associated with a single emission reduction or removal as one metric ton of carbon dioxide equivalent (CO₂e). Carbon credits shall be stored and retired in an independent public registry.
- 6. Permanence: Carbon credits shall represent permanent emission reductions and removals. Emission reductions represented by the carbon credits cannot be reversed after the issuance of the credits. For instance, if trees are planted but a forest fire or logging happens in the next hundred years, permanence is not met as the sequestered carbon is released back into the atmosphere. Where projects carry a risk of reversibility, at minimum, adequate safeguards shall be in place to ensure that the risk is minimized and that, should any reversal occur, a mechanism is in place that guarantees the reduction or removals shall be replaced or compensated. The internationally accepted norm for permanence is 100 years.
- **7. Co-benefits:** Carbon reduction projects preserve the planet, help local communities, and protect biodiversity. They also support the achievement of the UN Sustainable Development Goals, which lead to co-benefits. Co-benefits refer to all positive externalities enabled by the project and can consequently increase the quality of the project. The project should match your organization's environmental and social goals.
- 8. Transparency: Ensure that the price margins are clear and the money goes to local communities. It is important to purchase the credits from a transparent player as a common practice in the market is to buy the carbon credits through resellers, which most do not show transparent margins. As a result, contributors do not know how much of their contribution is going to the project and local communities.



Additional recommendations:

- Ensure that the selected projects match your organization's environmental and social goals. You can rely on experts to select the appropriate projects.
- Ensure that the price margins are clear, and the money you are paying for actually reaches the projects and the local communities.
- Match the project location to where your organization operates or sells its products.
- Match the project typology with your company's activities or interests.
- Conduct a banking due diligence on the project developers to verify the beneficiaries of your climate contribution.
- Ensure that the project meets the highest quality standards by ensuring that the project is certified by either an international or national standard such as Gold Standard, VCS, Plan Vivo, or Climate Action Reserve.

Can organizations claim carbon neutrality?

The short answer is no. Carbon neutrality is not possible at company level; however, an individual or an organization can contribute to reaching global carbon neutrality by supporting emission reduction projects. The only carbon neutrality rigorously defined by science is planetary.



b. How to communicate about climate contribution?

- 1. **Disclose your GHG Emissions Assessment:** by providing transparency, quantifying your reduction strategy, and determine your level of climate contribution.
- 2. Compliment your climate contribution with a solid emissions strategy by; using science-based targets, adapting your strategy to your sector, separating results by scope/ category, and demonstrating that you seek continuous improvement.
- 3. Hold your organization accountable when communicating about climate contribution by; favouring certified projects, assessing each project carrier's background, ensuring fair pricing, and avoiding the secondary market.



How can you make your approach more credible and legitimate?

- Explain the choice of using climate contribution in complement of a comprehensive decarbonization strategy;
- Provide a detailed description of the project, mention their certification standard, highlight their environmental and social impacts, and mention the SDGs they target;
- Define the relevant perimeter for your climate contribution;
- Define long-term goals and next steps.

The approach suggested by the Net Zero Initiative overcomes barriers related to carbon offsetting:

- Companies cannot claim that they are carbon neutral, but should say that they contribute to global carbon neutrality;
- The Net Zero Initiative considers climate contribution to be an additional tool for companies to use to enhance their positive impact, but has to be combined with an emission reduction strategy;
- The climate contribution mechanism itself is not sufficient to remain within a 1.5°C global warming pathway, but is needed along with reduction efforts to achieve this target.

Using the proper terminology, and avoiding words such as; "cancel", "offset", and "neutralize" contradicts conventional reporting rules, meanwhile "contribution" implies project financing versus canceling (11). ClimateSeed encourages all organizations to take this practice into account and helps its clients to communicate effectively about their climate contributions.



3. Carbon Glossary: Key Terms to Remember

Additionality (Environmental): According to the GoldStandard, additionality is a core provision for environmental integrity in carbon markets. The demonstration and assessment of additionality ensure that emission reductions generated by an activity would not be achieved in the absence of revenue from the sale of carbon credits.

Afforestation: Plantation of new forests on lands that never hosted trees in the past, i.e. the creation of new forests.

Anthropogenic: Resulting from human activities, such as anthropogenic emissions or removals.

Blue Carbon: Water-based carbon solutions in coastal and marine ecosystems. Such as; mangroves, tidal marshes, and sea grasses, which absorb a high amount of carbon dioxide in both the plants and sediments.

Carbon Credits (on the Voluntary Carbon Market): Credits emitted from a project after being certified and verified: 1 carbon credit is equivalent to the avoidance or absorption of $1 \text{ tCO}_2 \text{e}$ (tonne of carbon dioxide equivalent). Carbon Footprint: The amount of greenhouse gasses emitted by an organization through all its activities: one's environmental impact in terms of carbon emissions.

Carbon Neutrality: Worldwide equilibrium between anthropogenic emissions and anthropogenic absorption. As such, an organization, product, or service cannot be carbon neutral by itself but can contribute to achieving global carbon neutrality. The objective of carbon neutrality is twofold: to reduce the total amount of emissions and increase absorption capacity.

Carbon Offsetting: Compensating residual greenhouse gasses emissions through projects that absorb or avoid carbon dioxide. "Residual" is a key term as an organization must offset only after having reduced its emissions.

Carbon Sinks: A forest, ocean, land, or soil that absorbs more carbon dioxide than it emits.

Certification of Carbon Credits: Voluntary emission reduction (VER) are carbon credits issued by a verified project. Standards such as VCS or the Gold Standard follow a rigorous methodology to certify the projects and their carbon credits. For a project to be certified, it has to be real (proven to have taken place), measurable (all emission reductions/removals have to be quantifiable using recognized measurement tools, with uncertainty and leakage taken into account, against a credible emission baseline), permanent(in the case of a risk of reversibility, adequate safeguards need to be implemented), additional (see above), independently verified (by an independent qualified third party) and unique (no more than one carbon credit can be associated with a single emission reduction or removal as one metric ton of carbon dioxide equivalent - CO_2e (6).

Climate Change: A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (12).

Climate contribution: Supporting an emission reduction project in the Voluntary Carbon Market that not only captures or avoids greenhouse gas emissions but also contributes to the United Nations Sustainable Development Goals. Climate contribution is different from carbon offsetting as there is no definite point of arrival: the more contribution and emission reduction, the more benefits for the planet. Contributing to a project beyond the carbon impact, looking at the impact on nature, community, people, plus the carbon. The co-benefits of the project are key.

Co-benefits: Additional positive externalities of carbon reduction project, which target the United Nations Sustainable Development Goals (UN SDGs).

CO₂e: Carbon dioxide equivalent. Metric measures used to put all the greenhouse gasses on the same scale on the basis of their GBW (global-warming potential).

Decarbonization: The process by which countries, individuals, or other entities aim to achieve zero fossil carbon [usage]. Typically refers to a reduction of the carbon emissions associated with electricity, industry, and transport (5).

Double-counting: Term describing the situation in which two parties claim the same carbon removals or emission reductions.

Energy Mix: Different sources of energy used by a country or an organization. Fossil fuels accounted for more than 60% of the world's energy mix or 'Global primary energy consumption in 2019 (13).

Fossil fuels: Fossils such as coal, oil, and gas, which are the result of millions of years of decomposition of organic matter living. These fuels highly emit greenhouse gas when consumed.

GHG Protocol: GHG Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains, and mitigation action. It is the most used method on an international scale to measure and reduce greenhouse gas emissions (14).

Greenhouse gas: Gas that accelerates the greenhouse effect causing Earth's warming by trapping heat in the atmosphere. The 7 main greenhouse gasses are carbon dioxide, methane, nitrous oxide, and 4 fluorinated gasses. Greenwashing: A behavior or some activities that make people believe that a company is doing more to protect the environment than it really is. Climateseed fights and condemns greenwashing (15).

IPCC: Intergovernmental Panel on Climate Change, i.e. the United Nations body for assessing the science related to climate change.

Kyoto Protocol: Launched in 1995, it is an international agreement between the United Nations aiming at reducing greenhouse gas emissions.

Life-Cycle Assessment: International Standardized Methodology assessing the environmental impact of a product throughout its life, i.e. the use of raw materials, the manufacturing, the packaging, the distribution, the use by clients, and the disposal (12).

Low Carbon Label: French label launched in 2019 to certify French carbon reduction projects and stimulate their economic value. Examples of project typologies include forestry and agriculture projects.

Net-zero: A means to reach global carbon neutrality. Net zero corresponds to a situation where the amount of an organization's greenhouse gas emitted is equal to the amount of greenhouse gas captured or removed from the atmosphere (5).

Paris Agreement: Signed in 2015, the agreement sets out a global and international framework to limit global warming to 1.5°C and avoid irreversible climate change.

REDD+: Reducing Emissions from Deforestation and Forest Degradation. Initiative launched in 2008 of international projects tackling climate change linked to deforestation and forest degradation.

Reforestation: The plantation of trees on lands where the number of trees is decreasing, i.e. the restoration of existing forests.

Regulatory Carbon Market: Carbon markets are marketplaces through which regulated organizations manage emissions permits (allowances) or offsets to meet regulatory requirements. This market is based on a cap-and-trade system of quotas to follow the regulations. Major polluters are in this market, such as big oil and gas companies.

SBTi: Science-Based Target Initiatives. Verified emission targets for organizations in line with science analysis.

Scope 1: Direct emissions from sources owned or controlled by the organization e.g., the companies' cars.

Scope 2: Indirect emissions from the production of electricity purchased and consumed by a company e.g., the linked power plants.

Scope 3: All other indirect emissions generated by the organization e.g., the companies' buildings, waste, air travel, etc.

SDGs: The Sustainable Development Goals. These are the positive externalities of the projects defined by the United Nations. There exist 17 of them amongst which are 'Zero Hunger', 'No Poverty', 'Gender Equality', 'Life on land', etc. Spot/Forward Agreement: A spot agreement is an agreement to buy carbon credits 'on the spot', which means that the credits are already issued (ex-post) and can be delivered directly. A forward agreement is an agreement to buy currently non-emitted carbon credits at a fixed price. This process can happen either to avoid price increases or to secure credits in advance.

Voluntary Carbon Market: The market started under the UNFCCC in 2000. The goal was to help northern hemisphere countries meet their Kyoto Protocol targets by financing emission reduction actions in southern hemisphere countries, most vulnerable to climate change. This mechanism allows CO2 emitting activities (organizations and individuals) to take voluntary climate action by financing carbon reduction or carbon capture and storage programs with co-benefits to the local communities and biodiversity (16).

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