Indigenous Peoples' knowledge exchange

Thirteen key questions and answers on carbon markets

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Thirteen key questions and answers on carbon marketss

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Introduction

Forests play a critical role in regulating the Earth's climate by storing large amounts of carbon. Many territories managed by Indigenous Peoples and local communities contain healthy, intact forests that contribute significantly to global climate goals. Indigenous Peoples and local communities are increasingly being approached and are considering opportunities to participate in carbon projects. Aligning traditional land management practices with financial benefits can, in theory, create positive outcomes for both Indigenous communities and the ecosystem.

However, carbon markets are complex, and they carry risks, particularly when rights are not fully respected or information is not clearly shared.

This document presents a series of key questions that Indigenous Peoples and local communities have about carbon markets, with a particular focus on their relevance to forest and land-based projects. It is not a comprehensive guide but rather a compilation of questions and insights drawn from the experiences and discussions of Indigenous Peoples and local community representatives during a learning exchange held in Chiang Mai, Thailand, in 2024.

The learning exchange brought together participants from over eight nationalities in Asia, each contributing their perspectives on the challenges, opportunities and complexities of carbon markets, especially in relation to forests and land-based carbon projects. The questions included here reflect concerns and inquiries raised during the exchange. The answers are not directly attributable to RECOFTC but represent the collective responses from the Indigenous Peoples and community-based co-organizers of the event.

This document is intended for anyone, but especially for Indigenous Peoples and local communities who are engaged in, affected by, or considering land-based carbon initiatives and seeking to better understand what participation in carbon markets may mean for their rights, resources and futures. It focuses especially on how forest-based carbon credits work, how they can support or threaten the rights of Indigenous Peoples and communities, and what communities should consider before and throughout their participation in any carbon market opportunity.

Contents

1 What are carbon markets?

Carbon markets are economic systems or trading mechanisms designed to reduce greenhouse gas emissions and combat climate change by providing economic incentives for countries, companies and organizations to lower their emissions.

Emissions reductions or removals are quantified as carbon credits, which can be bought and sold to help meet carbon reduction targets. The sectors involved in carbon markets range from energy and transport to land-use. This publication focuses specifically on the land-use sector.

For Indigenous Peoples and local communities, the land-use sector is especially relevant, particularly through a category of projects known as nature-based solutions. Some nature-based solutions can result in tradable carbon credits when climate benefits are systematically measured and verified. This system can create income opportunities by monetizing sustainable forest management practices along with other potential benefits.

However, Indigenous Peoples and local communities also face risks associated with carbon markets. These include potential exploitation or land rights disputes, particularly if robust safeguards are not in place.

2 What does high integrity mean in carbon markets?

High integrity in carbon markets refers to the quality and credibility of carbon credits and the overall market system encompassing both supply-side and demand-side aspects.

On the supply-side, which covers community involvement and actions that generate carbon credits, it means that emission reductions and removals are real, additional, have verifiable climate impacts, align with each country's Nationally Determined Contributions and support higher ambition. Environmental integrity is complemented by transparency in the institutional and financial infrastructure for carbon market transactions. Discussions of integrity must also include social integrity, supported by robust social and environmental safeguards. These safeguards are essential for managing potential adverse project impacts and promoting positive, measurable and sustainable development outcomes.

Demand-side integrity relies on entities purchasing high integrity carbon credits and demonstrating genuine commitments to reduce emissions from their own operational and value chain processes, thus reducing the potential for greenwashing among others.

3 Why is integrity important in carbon markets?

Integrity is crucial in carbon markets to address valid concerns and ensure the effectiveness of these markets in combating climate change. A focus on high integrity will tackle issues such as double counting of greenhouse gas emission reductions, human rights violations and greenwashing, where companies falsely market their green credentials.

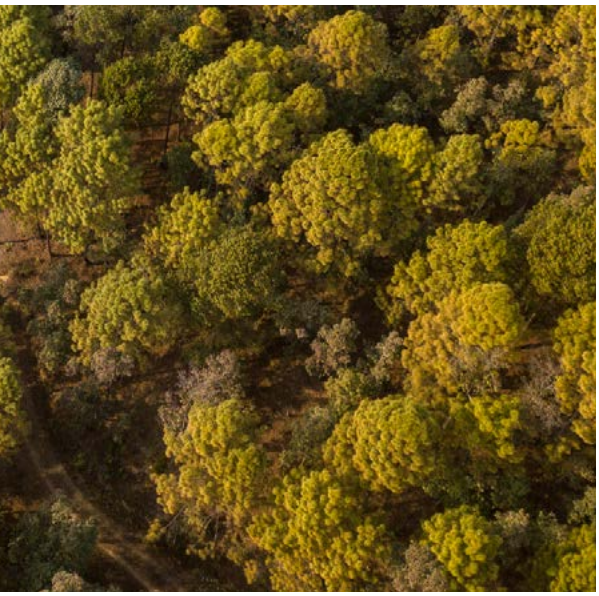
By promoting high integrity and climate ambition, carbon markets can facilitate the transition to net-zero societies by mid-century, supporting the implementation of Nationally Determined Contributions and accelerating progress towards the 2030 Agenda.

The benefits of carbon market activities vary depending on the country, sector and type of intervention. For local communities, potential advantages include access to clean energy and water, reduced air pollution, improved health infrastructure, reduced time spent collecting firewood, job creation, technical training, water retention, soil fertility and biodiversity protection. However, realizing these benefits requires navigating a complex and resource-intensive process. This complexity is still currently needed to verify that carbon credits contribute to real climate change mitigation as well as addressing global challenges beyond climate change, such as inequality, environmental degradation and constraints to social development, justice and peace.

4 What is a carbon credit?

A carbon credit is a tradable instrument representing the reduction or removal of one metric tonne of carbon dioxide (CO_2) or its equivalent in other greenhouse gases from the atmosphere. These credits are generated through projects following rigorous methodologies generally audited by third parties that either prevent emissions, such as renewable energy initiatives, or remove carbon from the atmosphere, such as afforestation efforts or emerging technologies like Direct Air Capture (DAC).

Carbon credits are earned by first establishing a baseline of emissions before any intervention, representing the scenario without the carbon market project. After an emission-reducing or carbon-removing project is implemented, the difference between the baseline emissions and the reduced or removed emissions is quantified as carbon credits. These credits are then certified by governments or independent certification bodies to ensure credibility and environmental integrity. Once issued, carbon credits can be sold or traded in international or domestic carbon markets, allowing companies or individuals to offset their carbon emissions and contribute to climate change mitigation efforts. This system helps direct investments toward sustainable projects and supports the global transition to a low-carbon economy.



5 What is the relationship between REDD+ and carbon markets?

The relationship between REDD+ and carbon markets has evolved since REDD+ was introduced as a framework in 2005. REDD+ stands for "Reducing Emissions from Deforestation and Forest Degradation, plus the conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks".

Initially not integrated into carbon market mechanisms under the UN system, REDD+ under the UN system began with the Warsaw Framework in 2013, which established methodological guidance for REDD+ implementation and emphasized non-market-based, results-based finance.

This was followed by Article 5 of the 2015 Paris Agreement, which reaffirmed REDD+ as a central element of climate action. The Paris Agreement also marked a turning point, with Article 6 allowing REDD+ and the broader land-use sector to be included in market-based mechanisms and bilateral trading of Internationally Transferred Mitigation Outcomes (effectively carbon credits) between countries. This integration was further reinforced with the adoption of the rulebook at the twenty-ninth Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change (UNFCCC), which provided guidelines for implementing these market mechanisms.

As of 2025, REDD+ activities that meet applicable Article 6 requirements are considered eligible under carbon market mechanisms. This development enables countries to financially support efforts to reduce deforestation in other nations through carbon market transactions, potentially increasing funding for forest conservation and sustainable management.

Under Article 6.2 of the Paris Agreement, REDD+ is already used in bilateral carbon credit trades. Its inclusion under Article 6.4, a global crediting mechanism, is still under discussion at the time of writing.

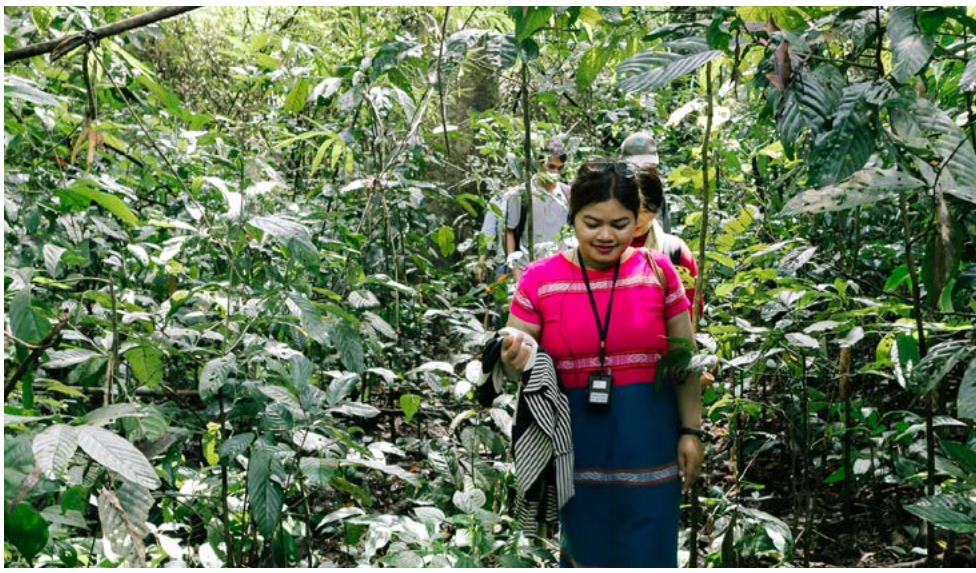
6 What can carbon markets mean for Indigenous Peoples?

Carbon markets present both opportunities and challenges for Indigenous Peoples. On the one hand, they offer potential economic benefits through sustainable management and protection of forest lands. Indigenous Peoples and local communities can earn revenue by protecting and enhancing forests that absorb and store carbon, the quantified results of which can be sold as carbon credits to companies or governments looking to offset their emissions. This income can support local development, strengthen community land tenure claims, improve governance systems, build capacities and enhance climate adaptation and resilience.

However, these benefits are contingent upon having projects that strongly involve Indigenous Peoples and local communities, ideally being co-designed and led by them. Such projects would need to be well-managed and, when they involve external developers, employ high integrity standards and safeguards. These are not universally present in all countries.

Challenges and risks include navigating complex technical, legal and financial aspects of carbon markets, as well as potential threats to land rights, culture and livelihoods without proper safeguards. The high costs of developing and registering a project with existing international standards make it inaccessible for Indigenous Peoples and local communities to engage directly.

Indigenous Peoples and local communities are entitled to Free, Prior and Informed Consent (FPIC) in all carbon market initiatives involving their territories. Strong safeguards and grievance mechanisms are necessary to protect Indigenous Peoples and local communities' rights and ensure equitable participation in carbon markets.



7 Can community members, private landowners and family forests benefit from carbon credits?

Yes, community members, including private landowners, family forest owners and community forests can benefit from carbon credits under certain conditions.

Carbon credits can be issued for various activities on private land, such as afforestation and reforestation projects that involve planting new trees or supplementing existing forests on degraded or agricultural lands. However, a key criterion is having sufficient land area to make a REDD+ or agroforestry project viable given its high transaction costs.

For smallholders or community forests, participating in carbon credit projects can be challenging unless there is a significant aggregation of the area at scale, such as sourcing areas, jurisdictions or sizeable Indigenous territories.

It is important to note that even without legal tenure or ownership of land, communities living on land impacted by a carbon project are often required to participate in FPIC processes and receive benefits under existing international voluntary carbon market standards. These benefits extend beyond financial gains and include ecosystem services, employment opportunities, capacity-building and training.

Carbon projects can also provide communities with an important opportunity to be directly consulted in land-use decisions, potentially enhancing democratic processes and strengthening tenure claims.

8 How are carbon credits created and certified in forests managed by Indigenous Peoples and local communities?

The creation and certification of carbon credits in forests protected by Indigenous Peoples and local communities involves a complex process that integrates technical carbon accounting with meaningful community engagement. Historically, carbon markets have been driven by private sector developers, with Indigenous Peoples and local communities often entering the discussion at later stages. There is now growing recognition of the need to involve Indigenous Peoples and local communities more centrally in project development.

The process typically includes key steps:

1. Project identification: A potential project area is identified where forest protection or afforestation/ reforestation activities could generate carbon credits. This can be initiated by project developers or by Indigenous Peoples and local communities seeking investment in their lands.
2. Feasibility assessment: The project's technical and financial viability is evaluated, including considerations of legal land tenure, existing forest management practices and potential co-benefits.
3. Free, Prior, and Informed Consent (FPIC): This crucial step ensures that Indigenous Peoples and local communities understand the project's implications for their lands and livelihoods and give their consent. FPIC is a right enshrined in the United Nations Declaration on the Rights of Indigenous Peoples and is required by most voluntary carbon market standards.
4. Project Design Document (PDD) development: A detailed plan is created, outlining how the project will prevent deforestation or enhance forest carbon sequestration. For Indigenous Peoples and local communities, the PDD will also necessarily lay out the impacts, both positive and negative.
5. Validation: The project undergoes third-party validation to ensure it follows certification standards such as Verra's Verified Carbon Standard, Climate Communities and Biodiversity Standard, Plan Vivo, Gold Standard or emerging new standards such as Partnership for Carbon Transparency (PACT) and Equitable Earth. This process includes verifying baseline data, projected carbon benefits and the project's adherence to social and environmental safeguards.

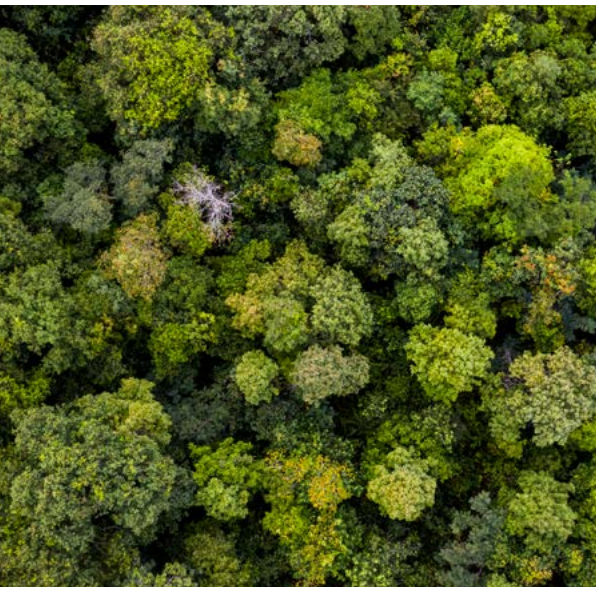
6. Registration: Once validated, the project is officially registered with a carbon standard body (e.g. Verra, Gold Standard, Plan Vivo). This registration allows the project to generate and eventually issue carbon credits.
7. Monitoring, reporting and verification: The project's impact is continuously monitored through regular data collection on forest cover, carbon stocks and other relevant indicators. Independent verifiers assess whether the project is achieving its carbon reduction targets. Indigenous Peoples and local communities may be involved in monitoring using community-based techniques.
8. Issuance: After successful verification, carbon credits are issued based on the actual emissions reductions or carbon sequestration achieved. These credits are registered, usually in an online registry that tracks ownership and prevents double counting. The credits can be sold on the carbon market, generating revenue for Indigenous Peoples, local communities and project developers according to an agreed benefit-sharing mechanism.
9. Retirement: Once a buyer purchases carbon credits, they can "retire" them to claim their emissions reductions. Retirement ensures that credits are no longer traded or used by others, preventing double counting of emissions reductions.

9 How is double counting of carbon credits prevented?

Double counting of carbon credits occurs when the same carbon emission reduction or removal is counted or claimed more than once, which can undermine the credibility and integrity of carbon markets. To prevent this, robust tracking systems and carbon registries have been developed to ensure that each carbon credit is only issued, sold and used once. These systems address three main concerns: double issuance (issuing multiple credits for the same reduction), double use (using the same credit more than once) and double claiming (when two different entities claim the same reduction).

In the case of Article 6 initiatives, the UNFCCC seeks to mitigate this risk by requiring "corresponding adjustments" when countries trade carbon credits internationally, ensuring that emission reductions are counted only once at the national level. Standards are continuously updating and incrementally tightening their requirements so that project developers can clearly demonstrate that the carbon credits they issue are not at risk of double counting.

Despite these efforts, challenges remain, particularly in the voluntary carbon market, which is inherently voluntary and unregulated. As carbon markets evolve, whether they are domestic, international or under the UNFCCC Article 6, any potential gaps must be addressed to prevent double counting and safeguard market integrity.



10 What are the different types of carbon markets?

Carbon markets have traditionally been categorized into two main types: compliance markets, such as the European Union Emissions Trading System and voluntary markets, which operate internationally or domestically on a voluntary basis. In recent years, the ecosystem of carbon markets has grown more diverse, featuring new structures and mechanisms.

In Southeast Asia, several countries, including Indonesia, Malaysia, Thailand and Viet Nam, are at various stages of establishing domestic carbon exchanges. These markets often begin as voluntary markets but are designed with the intention of eventually establishing mandatory compliance markets. The development of national carbon markets raises challenges for social integrity, as they may not always align with international best practices. For instance, some countries and national standards may not yet require social safeguards such as FPIC, equitable benefit-sharing or grievance redress mechanisms when registering carbon credits.

Jurisdictional REDD+ emission reductions can be certified under independent standards (e.g., ART-TREES or Verra JNR) and, depending on national policy choices, can be used either for market transactions (e.g., under Article 6.2 or voluntary carbon market trades) or for non-market results-based finance (e.g., Green Climate Fund or World Bank's FCPF). These initiatives issue credits for emission reductions or removals in the land-use sector at a jurisdictional scale, typically covering provinces, states or other administrative units. While Indigenous Peoples and local communities should be involved in FPIC and benefit-sharing arrangements, the exact implementation depends on the standards used by the jurisdictional initiative (e.g., The REDD+ Environmental Excellence Standard or ART TREES).

The Paris Agreement Crediting Mechanism, known as Article 6.4, is an evolving form of carbon market that was formalized at UNFCCC COP29 in Azerbaijan. This UN-recognized mechanism aims to address concerns about 'integrity' through rigorous methodologies and approaches. However, negotiations at COP29 revealed that agreements on social safeguards do not yet extend to certain concerns of Indigenous Peoples and local communities, including FPIC, land tenure security and the clear definition of 'stakeholders'. The A6.4 Sustainable Development Tool has been adopted by the Supervisory Body and will continue to be refined over time, but Indigenous Peoples' and local communities' rights are already embedded in the Paris Agreement and Article 6 guidance. Future iterations of the Tool may improve clarity and reporting, yet the core human rights protections – including participation, consultation, and access to grievance mechanisms – are already mandatory under Article 6.4.

Currently, international carbon standards, whether VCM or results-based, are coming under increased scrutiny. They are undertaking review processes to build in ever more rigorous safeguards – including around Indigenous rights, land tenure, gender equity or inclusion of marginalized groups in benefit sharing design.

11 Who oversees the carbon markets?

The oversight of carbon markets, particularly the VCM, is complex and multifaceted. The VCM is, by definition, voluntary and not mandated by law. As a result of its organic development, it is not governed or structured according to a single overarching framework. This can make comparing credits and their quality or 'integrity' across different standards challenging. The multiplicity of approaches, standards and quality has triggered criticisms, particularly among private sector buyers who seek assurance that carbon emission reductions purchased from different projects or standards are roughly equivalent.

An important role in assuring quality and good processes in carbon markets is played by third-party organizations known as validation and verification bodies (VVBs). These entities verify carbon reductions or removals and ensure adherence to best practices in social safeguards. However, VVBs are often private service delivery companies that maintain a low public profile. Recently, there have been calls for these companies to be more publicly visible and accountable, given the importance of their role.

Other initiatives contributing to the overall oversight of carbon markets include efforts such as the Integrity Council for the Voluntary Carbon Market (ICVCM). This initiative was established to verify claims by carbon offsetting standards regarding the integrity of their methodologies. While the ICVCM does not have regulatory authority, it functions as a meta-standard setter, establishing high-level principles to guide and informally regulate carbon markets, or at least the standards within them.

Additionally, rating companies, drawing on practices common in the insurance industry, are now providing ratings for carbon projects. These ratings aim to offer buyers a familiar and accessible system for selecting carbon credits and determining fair prices. Notably, the quality assessments conducted by the ratings agencies do not extend to social integrity or the quality of safeguards and stakeholder engagement.

12 How can we ensure that carbon offsetting is not greenwashing?

Greenwashing is the practice of making false or misleading claims of environmental sustainability. The question of whether carbon offsetting constitutes greenwashing is complex, with evidence supporting various perspectives. Studies on REDD+ projects have shown mixed results, with some demonstrating significant reductions in deforestation over time, while others suggest these contributions may be exaggerated. This diversity of findings underscores the need for Indigenous Peoples and local communities to approach the topic with a balanced perspective.

In response to critiques of false credits and unreliable baselines, the carbon market industry has initiated integrity measures to reassure stakeholders. These efforts aim to establish more robust standards and verification processes.

Regarding claims that companies use carbon offsets instead of reducing their emissions, recent evidence suggests otherwise. The Science-Based Targets initiative, for instance, has introduced the Corporate Net-Zero Standard, which requires companies to reduce their greenhouse gas emissions by at least 90 per cent across their entire value chain, including supply chain emissions, to achieve net-zero status. The remaining residual emissions can be addressed through permanent removals or offsets, such as carbon market purchases.

A 2023 study by Ecosystem Marketplace found that companies participating in voluntary carbon markets tend to lead in climate action, accountability and ambition. These companies are reported to be 1.8 times more likely to be reducing their emissions year-over-year compared to non-participants. Additionally, the median voluntary credit buyer was found to invest three times more in emission reduction efforts within their value chain than companies that do not purchase carbon credits.

13 What are the challenges for Indigenous Peoples and local communities related to carbon markets?

Land and resource rights present a significant challenge. There is a possibility that Indigenous Peoples and local communities will be further alienated from their forests. When governments see the potential to benefit from these forests, they may be less inclined to recognize or uphold land rights for Indigenous Peoples, leading to dispossession.

Access rights can also be further limited. Traditional livelihoods, such as swidden farming and the gathering of non-timber forest products, may be restricted under the guise of carbon capture. Protecting carbon can be used as a justification to exclude Indigenous Peoples from their customary use of forest resources.

Inequitable benefit-sharing schemes are another concern. Carbon project developers can retain a disproportionate share of the benefits from carbon trading, resulting in an unequal distribution that disadvantages Indigenous Peoples. This particularly affects women and youth, who often have less influence in deciding how benefits are shared.

Community division can occur when there is no effort to build a common understanding within the community of the advantages and disadvantages of carbon markets. Unequal benefit-sharing and lack of transparency can also exacerbate tensions and undermine the social cohesion of Indigenous Peoples and local communities.

Finally, there is potential erosion of cultural values. The introduction of cash benefits often brings changes in values, and this is very possible in the context of carbon trading. Forests that were once protected as cultural and spiritual connections to ancestors and future generations may come to be regarded primarily as commodities.

All of these risks can be mitigated if Indigenous Peoples and local communities are engaged from the stage of project identification and planning. Meaningful participation throughout the entire carbon market cycle, combined with robust social safeguards, equal partnership and transparency, is essential to protect the rights and cultural values of Indigenous Peoples and local communities.

Resources

Carbon markets: An introductory series of animations for Indigenous Peoples and forest peoples, Forest Peoples Programme

Carbon markets, forests, and rights: An introductory series for Indigenous Peoples and local communities

- English
- Bahasa Indonesia

Carbon markets and our rights: A guide for Indigenous Peoples and local communities video series, Rainforest Foundation

- Video 1: Carbon Markets and Our Rights
- Video 2: The Forest Carbon Market
- Video 3: What are our Rights
- Video 4: Certification and Safeguards - Rainforest Foundation
- Video 5: What are the risks to our rights?
- Video 6: What to do when things go wrong

Decision tool for Indigenous Peoples and local communities on the Voluntary Carbon Market, Climate Focus

Declaration towards fair and transparent carbon markets and REDD+ processes, Mesoamerican Alliance of Peoples and Forests

Free, Prior, and Informed Consent in REDD+, GmbH Sector Network Natural Resources and Rural Development – Asia and RECOFTC

High-integrity carbon market initiative: Frequently Asked Questions, United Nations Development Programme

High-Integrity Carbon Markets Toolkit

Making carbon markets work for Indigenous Peoples and local communities

Status of forest carbon rights and implications for communities, the carbon trade and REDD+ investments, Rights and Resources Initiative

The voluntary carbon market explained, Climate and Land Use Alliance

UNFCCC negotiations, Fact sheets, UNFCCC REDD+

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