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LAND WATCH PHILIPPINES
ISSUE BRIEF

Carbon Market

Carbon currency: Understanding carbon markets in the Philippines

Introductory Note

On 12 July 2024, the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) organized in partnership with the National Anti-Poverty Commission (NAPC), a "Learning event on the nature of carbon markets."

Supported by We Effect, the event was participated by 36 representatives from farmers, fisherfolk, indigenous peoples, urban poor, and CSOs.

Enrique Nuñez gave an overview of carbon markets and how they operate. His presentation was complemented by the stories and practical experiences of partner IP communities of the Philippine Association for Inter-Cultural Development (PAFID) in developing carbon projects.

Albert Altarejos Magalang from the Climate Change Service of the Department of Environment and Natural Resources (DENR) discussed the development of national policies related to carbon financing.

This briefer is produced by ANGOC as our contribution to understanding carbon markets, their opportunities and challenges, and to grasp how they may be implemented in policy frameworks for emission reductions and climate change mitigation, with a land rights perspective.

Background on Carbon Emissions

What are carbon emissions?

Carbon emissions refer to the release of carbon dioxide (CO_2) and other greenhouse gasses (GHGs) into the atmosphere. These emissions primarily come from human activities and contribute to global warming and climate change.

Carbon emissions trap heat in the Earth's atmosphere, leading to an increase in global temperatures. This phenomenon is known as the "greenhouse effect." The increase in global temperatures results in changing weather patterns, rising sea levels, more frequent and severe extreme weather events, and disruptions to ecosystems.

Box 1: What is the carbon cycle?

> The carbon cycle refers to the constant movement of carbon throughout the atmosphere and down to land through various natural processes such as photosynthesis, respiration, and decomposition.

Methods of mitigating carbon emissions

1. ***Carbon emissions removal****:* Involves extracting CO_2 and other GHGs from the atmosphere and storing them in a way that prevents their release back into the atmosphere. An example of this solution would be reforestation.
2. ***Carbon emissions reduction*****:** Refers to the actions taken to decrease the amount of CO_2 and other GHGs being emitted into the atmosphere compared to previous activities. An example of this would be using renewable energy.
3. ***Carbon emissions avoidance***: Involves taking actions that prevent potential future emissions from occurring. An example of this would be completely halting deforestation or anti-carbon policy measures.

Introduction on Carbon Markets

Forests are responsible for sequestering approximately 29 percent of the CO_2 emitted by human activity. Unfortunately, not all forests are protected and can be subject to unsustainable rates of deforestation and wildlife poaching. Globally, 11 percent of GHG emissions come from deforestation. Additionally, some indirect drivers of climate change include underfunded enforcement agencies, poverty in forest communities, and opportunity costs. For these reasons and more, carbon markets were created in hopes of using market forces to mitigate carbon emissions.

What is a carbon market?

A carbon market turns CO_2 emissions into a commodity by giving it a price. GHG emissions can fall into one of two categories: carbon credits or carbon offsets. These can both be bought and sold on a carbon market by different entities. These markets are designed to create financial incentives for reducing emissions with the goal of mitigating climate change.

Box 2: What are Carbon Offsets?

Carbon offsets refer to the measurable and verified reductions in CO_2 that have been achieved outside of the capped sector. By voluntarily investing in projects that reduce or sequester emissions, organizations are able to balance their own emissions. An example of this would be reforestation. Carbon offsets are often measured by a third party outside the buyer and seller to ensure that the reduction in CO_2 is genuine and permanent.

Box 3: What are Carbon Credits?

Carbon credits are tradable certificates or permits that represent the right to emit one metric ton of carbon dioxide or the equivalent amount of another GHG. It is aligned with institutional regulations wherein corporations are compelled to limit their GHG emissions.

Participating in the Carbon Market

An entity may be required by government law to offset or cap its carbon emissions. One way that an entity may comply with industry regulations is by participating in the carbon market. Participating in the carbon market requires the acquisition of either carbon credits or carbon offsets.

To obtain carbon credits, an entity must invest in carbon emission reduction projects that produce carbon offsets. Carbon offset programs can include reforestation, renewable energy, methane capture, or combustion, and the like. Finally, the entity receives carbon credits for its investment and subsequently, its carbon emission reduction.

Entities can buy credits from other entities to comply with regulations, for pre-compliance, or on a voluntary basis to achieve climate action goals. These credits are transferred electronically via a registry.

Types of Carbon Markets

Compliance Carbon Market

The compliance carbon market is a system where governments and regulatory bodies set limits (caps) on the amount of GHG that industries or sectors can emit. Entities that emit GHGs are required to comply with these limits by holding sufficient allowances or credits to cover their emissions. If they emit more than their allowance, they must purchase additional credits; if they emit less, they can sell their surplus credits.

Some key features of the compliance carbon market are as follows:

- Cap-and-Trade Systems

  Governments set a cap on the total amount of GHG that can be emitted by covered entities. Emission allowances are distributed or auctioned, and entities can trade these allowances. If a company reduces its emissions below its allowance, it can sell the excess allowances to others.

- Carbon Tax

  While not a market per se, a carbon tax imposes a direct price on carbon by taxing emissions. This encourages companies to reduce their emissions to avoid paying higher taxes.

Voluntary Carbon Market (VCM)

VCMs are where emission reduction targets are not regulated by a public authority or under any mandatory obligation.

Sellers of carbon credits include the private sector, governments, and others from across multiple sectors like renewable energy, forestry, waste management, energy efficiency and fuel switching, household appliances, and more. On the other hand, buyers of carbon credits in this market typically consist of companies, organizations, and individual consumers.

What are carbon projects?

Carbon projects are initiatives designed to reduce GHG emissions or remove CO_2 from the atmosphere. These projects also generate carbon credits. Carbon projects can be implemented in various sectors, including forestry, agriculture, energy, waste management, and industrial processes.

The Verified Carbon Standard (VCS) allows proponents to propose and implement projects to protect forests. These projects can generate carbon credits by demonstrating that they are preventing emissions that would have occurred without the protection of the project.

Box 4: What are High Integrity Carbon Projects?

High Integrity Carbon Projects are initiatives that adhere to the highest standards of environmental and social responsibility, ensuring that the claimed GHG reductions or removals are real, measurable, and verifiable. These projects not only aim to mitigate climate change but also provide co-benefits such as biodiversity conservation, social equity, and economic development.

Box 5: What is the Integrity Council for the Voluntary Carbon Market (IC-VCM)?

Established in 2021, the Integrity Council for the Voluntary Carbon Market (IC-VCM) is a non-profit, independent governance body that oversees, sets, and implements the highest standards in ethics for the VCM and high-integrity carbon projects. The IC-VCM ensures that the market supports public good and contributes to the Paris Agreement.

Qualifications for a Carbon Credit Project

Before a carbon project can be implemented and start generating carbon credits, it must first satisfy the following qualifications:

1. ***Additionality***: The project must demonstrate that the GHG reductions or removals it achieves would not have occurred in the absence of financial incentives from carbon credits.
2. ***Permanence***: Certain measures must be in place to ensure that sequestered carbon remains stored over the long term.
3. ***Verification and Monitoring***: The project must quantify the amount of GHG emissions reduced or removed. The amount must be verified using approved methodologies and robust monitoring systems.
4. ***Leakage Prevention***: The project must ensure that all deforestation activities are prevented in the area and that it does not shift from one area to another.
5. ***Community Engagement and Benefit-Sharing***: Every carbon project can not only benefit the seller but must provide additional social benefits to the community, such as community development and biodiversity conservation.

Development Cycle of a Carbon Credit Project

The exact duration for a carbon credit project may vary depending on the complexity, scale, and local conditions of the project. Several years are allocated for initial planning and require continuous monitoring and regular verification to ensure the credibility of the projects.

In this context, the general timeline for the development of a carbon credit project is as follows:

1. ***Project Concept and Feasibility***: 6 to 12 months
   The potential for GHG reduction or removal is evaluated as well as the financial viability, technical feasibility, and social and environmental impacts of the project.
2. ***Project Design***: 6 to 12 months
   A methodology recognized by certification standards (e.g., Verified Carbon Standard, Gold Standard) is selected and a comprehensive project design document (PDD) is developed.
3. ***Validation and Registration***: 6 to 12 months
   The project design document (PDD) is submitted to an accredited independent validator. Once validated, the PDD and supporting documents are submitted to a carbon registry for official registration. Upon approval, the project is listed on the registry and then eligible to generate carbon credits.

4. ***Implementation and Monitoring***: 20 to 30 years
   The project is implemented as outlined in the PDD. Data on the emissions reductions is regularly collected and reported throughout the active years of the project.
5. ***Verification and Issuance of Credits***: Every 1 to 5 years
   An accredited verifier audits and confirms the emissions reductions of the project. Once approved, the corresponding carbon credits are granted by the registry.

Community Carbon Rights

In relation to the protection of Indigenous communities and in upholding the ethical integrity of carbon projects, carbon rights and benefit sharing are safeguards to ensure this. Carbon rights ownership refers to the entitlements of local communities to receive a fair share of benefits generated from carbon credit projects.

Property Rights: Carbon rights include the property rights to sequestered carbon itself contained in land, trees, soil, and the like. These relate to the ability to sequester and store carbon in natural resources.

Benefit Rights: Carbon rights also encompass the rights to benefits that arise from the transfer of these property rights, such as through emissions trading schemes.

Benefit Sharing Agreement

Alongside the protection of community carbon rights is the benefit-sharing agreement. Benefit-sharing mechanisms in carbon projects are designed to ensure that the financial and non-financial outcomes of such projects are distributed equitably among all stakeholders, including indigenous peoples and local communities.

Developing Policies and Mechanism for Carbon Markets

International Carbon Market Landscape

Compliance Market Mechanisms

The international carbon market can be separated into the compliance market and the voluntary market. The compliance market is based on the commitments of each country to comply with government regulations under key international agreements such as Article 6 of the Paris Agreement and the Kyoto Protocol.

Under Article 6 of the Paris Agreement are the subsequent Articles 6.2 and 6.4. Article 6.2 allows countries to trade carbon credits through bilateral agreements while Article 6.4 establishes a centralized mechanism for trading credits.

Another key international agreement that exists for the carbon market is the Clean Development Mechanism (CDM) established under the Kyoto Protocol. This mechanism allows industrialized countries to invest in emission reduction projects in developing countries and earn certified emission reduction (CER) credits. Although widely established, many CDM projects are transitioning to new mechanisms under Article 6 of the Paris Agreement.

The CDM as a market-based mechanism is different for Annex 1 countries, which are developed countries, and non-Annex 1 countries, which are mostly developing countries. The CDM enables Annex 1 countries to meet their emission reduction commitments by investing in CER credits generated by non-Annex 1 countries. Non-Annex 1 countries are able to assist developing countries and benefit in the form of receiving investments, better technology, and local sustainable development.

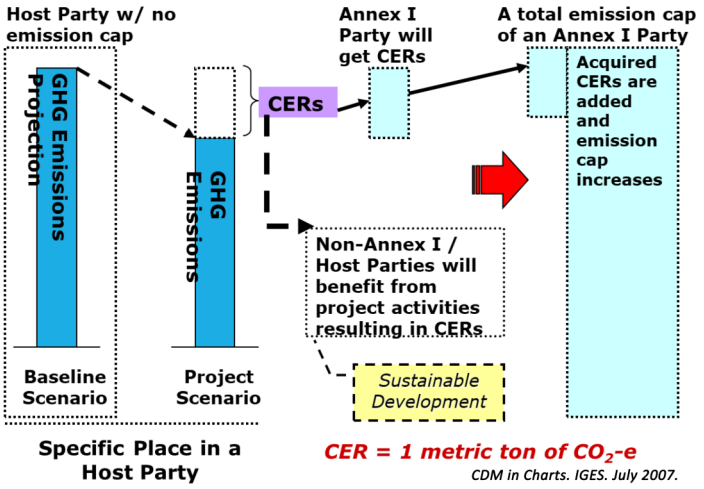

Figure 1. Diagram of the CDM as a market-based mechanism. Taken from the presentation of Albert Altarejos Magalang from the Climate Change Service of the Department of Environment and Natural Resources (DENR), during the Learning Event organized by ANGOC at the National Anti-Poverty Commission (NAPC) Office on 12 July 2024.

A global industry specific mechanism is the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) which regulates the CO_2 emissions from international aviation. The goal of CORSIA is to help the aviation industry achieve carbon-neutral growth from 2020 onwards, compensating for the increase in emissions above 2020 levels through carbon offsetting and emissions reduction measures.

Box 6: What is the Joint Crediting Mechanism (JCM)?

The Joint Crediting Mechanism (JCM) is a bilateral carbon offset scheme initiated by the Japanese government. It aims to facilitate the diffusion of leading decarbonizing technologies through investment by Japanese entities. This in turn contributes to GHG emission reductions in partner countries.

Voluntary Market Mechanisms

The voluntary market is not covered by multilateral UN processes but rather by the protocols of individual and independent entities, organizations, or communities. The verification and reporting system of the voluntary market is completely separated from the compliance market which is regulated by the government.

One of the most widely used voluntary standards for the VCM is the Verified Carbon Standard (VCS) which certifies carbon emission reduction projects and carbon credits for independent entities.

Domestic Carbon Market Landscape

Just like the international carbon market landscape, the carbon market landscape in the Philippines is still developing. The local market is influenced by national policies, international agreements, and various stakeholders' initiatives aimed at mitigating climate change. Similarly, the domestic carbon market is also divided into the compliance and voluntary markets.

Compliance Market Mechanisms

Currently being discussed by the technical working group of the House of Representatives is the "Low Carbon Strategy Act" or House Bill No. 7705. The objective of the bill is to develop an Emissions Trading Scheme (ETS) for participating industries. On the other hand is the Crediting Mechanism which dictates that a price must be set on the carbon emissions generated by industries. As of August 2024, official guidelines for the pricing of carbon emissions have not yet been established.

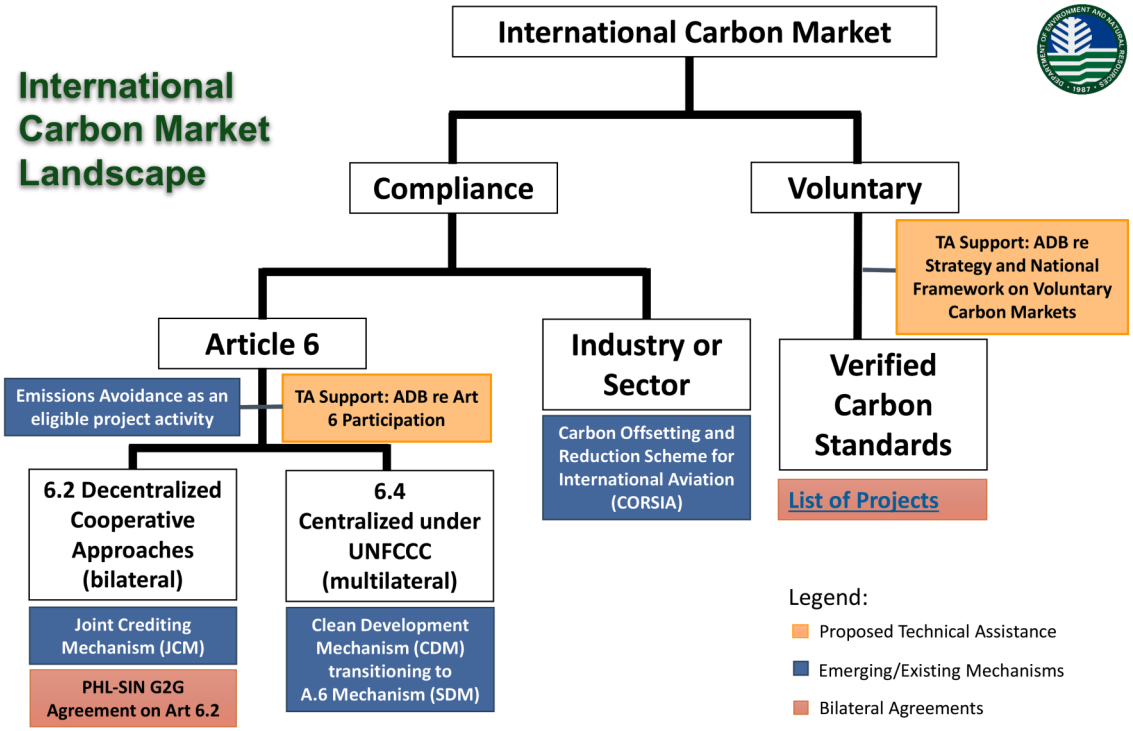

Figure 2. Overview of the International Carbon Market. Taken from the presentation of Albert Altarejos Magalang from the Climate Change Service of the Department of Environment and Natural Resources (DENR), during the Learning Event organized by ANGOC at the National Anti-Poverty Commission (NAPC) Office on 12 July 2024.

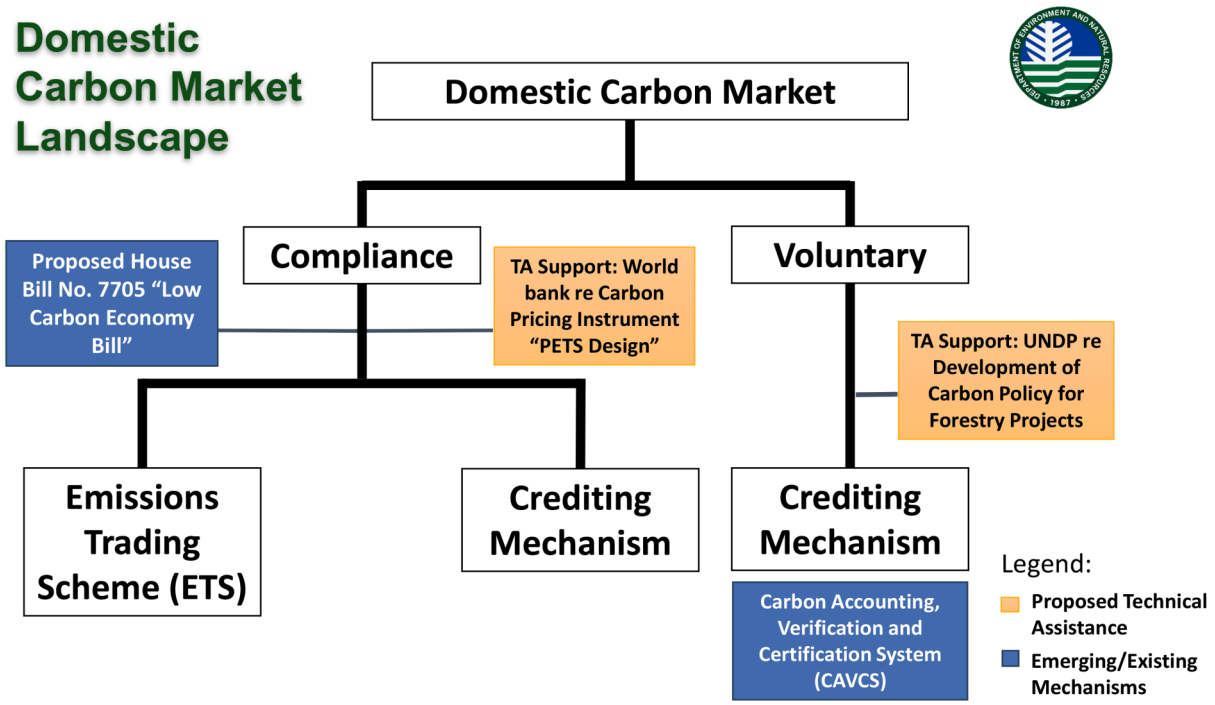

Figure 3. Overview of the Domestic Carbon Market. Taken from the presentation of Albert Altarejos Magalang from the Climate Change Service of the Department of Environment and Natural Resources (DENR), during the Learning Event organized by ANGOC at the National Anti-Poverty Commission (NAPC) Office on 12 July 2024.

Voluntary Market Mechanism

There is currently no official market in the domestic landscape for independent entities to sell and purchase carbon credits. These industries are urging for their carbon emission reductions to be accounted for and certified.

Implementation of the Clean Development Mechanism in the Philippines

The Philippines ranks 12th globally with 77 projects of estimated emission avoidance or reduction of 4 million tons per annum.

Ninety percent of the registered CDM projects in the country involve the following:

1. Methane recovery from animal manure (40%);
2. Grid-connected renewable energy generation (36%); and,
3. Off-grid renewable energy projects (14%).

Although the Philippines has about 3 million CERs, these are all banked since there is a lack of buyers as the global mechanism transitions to the Paris Agreement.

Community Views

Experience of Carbon Projects in the Philippines

It goes without saying that implementing carbon credit projects takes a significant amount of manpower to implement and maintain. In addition, the long-term nature of these projects also takes a toll on the lives of the surrounding communities. Knowing that the policies and regulations of carbon markets in the Philippines are still under development leads to many challenges. The indigenous peoples (IP) and farmers sectors whose land these projects are built on are particularly vulnerable to the challenges of the developing carbon market.

The IP participants at the Learning Event were able to share their community's experience of participating in the development of carbon projects on their lands. The main issue that they brought forth was that the lack of clear guidelines and policies about the carbon market leaves the communities lost and unprotected.

Another issue that the IP participants shared at the Learning Event was that the participation of their communities in the carbon projects was unsustainable in the long term. While they have stated their willingness to

engage in these projects, they are concerned about how the knowledge of the proper management of their land might not be passed down to the next generations of their community.

In addition, the IPs enumerated the problem of land tenure and concerns regarding displacement. According to them, their communities are apprehensive that when the restoration work begins, they will be denied access to their lands. The issue of insecure land rights has been a problem in rural communities for the longest time which is only exacerbated by the convoluted development of carbon projects.

Opportunities and Challenges

Within the context of these community experiences, it is clear that the state of the VCM in the Philippines has a way to go in terms of creating a holistic and ethical development process.

The rate of environmental degradation is outpacing conservation efforts, requiring a 45 percent reduction in emissions by 2030 to avoid severe planetary changes. Reforestation and carbon offset projects alone are insufficient to achieve this goal while coal power plants and petrol vehicles continue to proliferate as global consumption remains high.

At this point, carbon offsetting is not enough. While carbon reduction is essential, there is a need to monitor how companies and governments are doing their share in the reduction end.

Many forest carbon offset schemes are located in lands historically claimed, inhabited, and utilized by IPs and local communities. However, the rights of these communities are frequently not secured, jeopardizing their well-being and posing significant risks to the sustainability of carbon markets.

The rules aim to improve environmental integrity, avoid the double counting of emissions reductions — where a single greenhouse gas emission reduction or removal unit is counted more than once to comply with emissions reductions targets — and provide enhanced transparency.

Increasing the economic value of the carbon sequestered in the lands and territories held by communities, whether legally recognized or not, creates incentives for land grabbing by corporations, powerful individuals, and governments. Thus, unless the land rights of indigenous peoples and farmers are not secured and recognized, their evictions will be inevitable.

It is essential to clearly define and transparently address the access and benefit-sharing mechanisms for both carbon and non-carbon benefits, as well as the grievance mechanisms available for communities to raise concerns and complaints. Furthermore, ensuring the full and effective participation of communities throughout the entire process — from initial design through implementation, monitoring, and reporting of carbon transactions — is critical.

From the discussions during the Learning Session, the following question must be answered: How can communities be empowered to measure and compute the carbon emissions of their land?

While these carbon projects have the potential to provide opportunities such as local economic development, support for Indigenous communities, and biodiversity conservation, these are nullified if not implemented correctly for the community. These are some of the challenges that must be considered when developing carbon projects.

- ***Legal uncertainty and methodological challenges***: In the Philippines as in many Asian countries, legal frameworks around carbon rights are still evolving. This leads to uncertainty, confusion, and potential disputes among the participants in carbon projects. The underdeveloped frameworks also leave communities unprotected.

- ***Land tenure issues***: The unclear and contested land tenure can complicate the establishment and recognition of carbon rights. Land disputes may further alienate the community and result in the disruption of their livelihoods.

- ***Capital and capacity***: Project expenses, certification, and verification are all difficult to obtain. The process

of acquiring the capacity requires balancing local community and stakeholder interests.

- ***Equity and inclusivity***: Ensuring that carbon projects benefit all stakeholders requires careful attention to legal and social considerations. Benefits-sharing arrangements must be solidified and deemed fair by all parties involved.

Improving Policies to Protect Communities

During the Learning Event, a discussion among the sector representatives on how future policies could be improved to protect communities took place.

One of the takeaways from this discussion was to simplify programs and ensure consistency among all the sectors to reduce confusion. While it is understandable that guidelines may be unclear at the early stages of development, it is crucial to consider the local communities who are expected to learn and implement them later on. It was mentioned that at some point, the program becomes too complex for it to benefit anyone.

In relation to the development process of these projects, another recommendation was to invite the local communities into the policy-making discussions. It is essential to IP communities that their lives, land, and cultural practices are protected. Conflicts over land tenure, benefits sharing, and inclusivity may be avoided with sufficient consultation from affected communities.

Finally, the sector representatives emphasized that education is key to a smooth transition and sustainable implementation. As an emerging climate mitigation mechanism, many aspects about the carbon market are not common knowledge. Carbon issues are another complex topic crucial for a proper hand-off to the next generations.

If safeguard measures are ensured, there are many benefits that can be attained from a sustainable and ethical carbon market with enough productive conversations between CSOs and responsive policymakers. ■

This briefer draws on the discussion and exchanges during the learning exchange, presentation of Albert Altarejos Magalang of DENR and the inputs based on the presentation materials developed by Enrique Nuñez and Dave de Vera. ANGOC appreciates these interventions.

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Disclaimer:

The views outlined in this briefer do not necessarily reflect those of the resource persons, DENR, We Effect, and SIDA.

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