Information Note
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INTEGRATING CLIMATE FINANCE AND CARBON MARKETS

Carbon markets represent a tool for mobilising investment in mitigation activities, driving progress towards achieving NDCs and raising ambition in global climate action, through **results-based payments**. As such, they are distinct but complementary to climate finance, which is defined in this context as transboundary finance to support mitigation and adaptation activities in developing countries.

In Africa, including many West African countries, neither carbon markets nor climate finance alone have been effective in mobilising sufficient investment and resources into GHG mitigation and adaptation activities. This is primarily due to general barriers to investment in the region, such as insufficient market development and infrastructure, high interest rates, currency risk, inflation, and political instability. These challenges hinder the effective provision of climate finance, as climate finance instruments usually have explicit co-finance requirements and require pre-existing investment (e.g., new renewable energy installations require an extensive grid). Additionally, the fragmentation of climate and carbon finance is a barrier, particularly for countries lacking the capacity and track record to access funding.

Despite these challenges, both instruments will likely continue to play a relevant role in the future due to the need for large-scale investments in mitigation activities with high sustainable development and adaptation benefits, combined with increasing recognition of the role of the private sector in such investments and evolving technologies. **The "blending" of carbon markets and climate finance can be explored as an opportunity to leverage synergies between both instruments if key conditions, particularly with regard to attribution, are met.**[1]

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[1] Hoch, Stephan; Ombuya, Sherri; Waweru, Peris; Greiner, Sandra; Andreo Victoria, Gema; Della Maggiore, Marco; Kelly, Roberts; Cowman, Tim; Owino, Thomas; Sosis, Karin; Dunod, Alexandre; Goret, Harold (2022): Financing sustainable energy access in African NDCs. Enhancing ambition through linking carbon markets and climate finance; Climate Finance Innovators, Freiburg, Germany.

In essence, **carbon and international climate finance sources can be "integrated"**, although practical experience thus far is limited (*see practical example on p.5*). This integration makes conceptual sense when the revenue from carbon credits alone cannot render an activity financially viable, and international climate finance steps in to cover the remaining gap, or vice versa. Such an approach enables a movement up the marginal abatement cost curve, facilitating the pursuit of increasingly 'high-hanging fruit'.

There are two ways in which integration of finance (so-called 'blending') can occur, namely **indirect** and **direct** integration[2]:

1. Indirect Integration: Implicit International Climate Finance Through the Share of the Mitigation Remaining in the Host Country

Under the Clean Development Mechanism (CDM), mitigation outcomes were entirely transferred to the buyer in the form of emissions credits. Conversely, some European Union (EU) host countries, under Joint Implementation (JI), opted to issue credits for only a portion of the mitigation outcomes, retaining the remainder towards their targets.

Under the Paris Agreement (PA), host countries may wish to retain a share of the mitigation outcomes for their Nationally Determined Contributions (NDCs). This can be achieved through measures like authorising only a partial transfer of verified mitigation outcomes or indirectly through crediting baselines more stringent than Business-As-Usual (BAU) and aligned with the PA's long-term temperature goal. Regardless of the approach, if it results in a reduced volume of emissions credits transferred, it represents implicit international climate finance, mobilised indirectly by the international buyer of Internationally Transferred Mitigation Outcomes (ITMOs).

The economic consequence of retaining a share of the mitigation is that, at the margin, the price per ITMO must increase proportionally to the percentage of the mitigation retained. For instance, if the host country retains 30% of the mitigation, the price needs to increase by 42.8% (1 divided by 0.7) at the margin, assuming the host country does not share a part of these costs. This price increase compared to the situation without retaining mitigation in the host country constitutes the mobilised international climate finance.

Cancelling a share of ITMOs for Overall Mitigation of Global Emissions (OMGE) does not generate the same effect since the mitigation benefits the atmosphere, not a specific country. Hence, it is inappropriate to allocate the implicit finance generated by the price increase to developing countries. However, a proxy calculation could be done by considering the "share" of developing countries in the global total of economic or other parameters, such as population.

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[2] Espelage, Aglaja; Ahonen, Hanna-Mari; Michaelowa, Axel (n.a.): The role of carbon market mechanisms in climate finance, In: Michaelowa, Axel; Sacherer, Anne-Kathrin. Handbook of International Climate Finance. Cheltenham UK: Edward Elgar Publishing Online, 352-378.

2. Direct Integration: Combining Sources of Carbon and Climate Finance for Distinct Activities/Policy Instruments

In principle, integration can occur at an activity-specific level, where part of the investment in an activity generating carbon credits comes from public sources. In this approach, climate finance not mobilised through carbon markets acts as a "subsidy" to carbon finance. This may take the form of direct financial disbursement for monitoring an activity or subsidised loans. For example, a public entity may offer international climate finance to support the enabling conditions of a mitigation activity, such as financing the reporting and accounting infrastructure. Simultaneously, a private actor contributes the remaining investment and, in turn, receives the carbon credits.

In principle, the entity providing both elements of finance can be the same, such as a buyer country government overseeing both financial aspects and receiving the credits. In a scenario incorporating blending, the availability of carbon credits increases, potentially leading to a decrease in the credit price if demand remains constant.

Carbon crediting mechanisms can channel diverse financial resources to facilitate and monitor the efficacy of mitigation actions. This applies both to fulfilling conditional NDC targets and fostering ambition-raising. It is important to note that climate finance need not be limited to activities easily measurable through MRV, as certain supportive actions, can yield significant indirect mitigation benefits. To optimise the utilisation of climate finance, carbon finance, and OMGE finance, alignment of all financial flows with the long-term objectives of the Paris Agreement must be conducted. For countries seeking to attract carbon and climate finance for NDC implementation and enhancement, transparent communication of target conditionalities is crucial.

Ways to strengthen the link between carbon markets and climate finance

To strengthen the link between carbon markets and climate finance, several key areas should be prioritised, according to a recent Africa-focused publication on the topic:

1. **Harnessing Synergies in Results-Orientation**
   Carbon markets have a strong results-orientation, which is built on the ex-post certification of mitigation impacts. This methodology has proven beneficial for climate finance, as evidenced by the emerging practice of using carbon market methodologies in Green Climate Fund (GCF) projects for MRV purposes. By linking these instruments, the strength of carbon markets' rigorous impact measurement can enhance the results-driven nature of climate finance initiatives.

2. **Mobilising Upfront Investments**
   A key challenge for carbon markets is mobilising the initial investment needed to generate mitigation outcomes. Climate finance institutions, with their ability to provide grants, loans, and equity, can help overcome this barrier. Carbon markets can benefit from the predictability of climate finance resources, which support the upfront capital necessary for long-term mitigation activities. This collaboration can ensure projects are financially viable before they generate carbon credits.
3. **Simplifying Access to Resources**
   A shared barrier for both carbon markets and climate finance is the complex, bureaucratic processes that hinder access to funding, particularly for low-income countries. Simplifying access to both resources without compromising environmental and social integrity will be crucial for increasing the effectiveness and inclusivity of these financial instruments. Streamlining procedures and reducing the administrative burden will allow a wider range of countries to engage with both carbon markets and climate finance, enhancing overall global climate action.

How to allocate financial flows when blending occurs?

Proportional attribution approach: This approach allocates to each financial flow the emission reductions/removals (ERs) corresponding to what it has paid for, thereby avoiding cross-subsidisation. Emission reductions paid for through climate finance could be used towards the host country's NDC, while acquiring countries would obtain ITMOs equivalent to their financial contribution through the market. In this way, the approach could address two concerns: climate finance providers' apprehension that their funding effectively subsidises carbon markets, and potential violations of environmental integrity.

Applying proportional attribution is essential whenever blending occurs. Under the CDM, buyers were allowed to claim all ERs from projects supported by finance beyond carbon market revenues. In the context of the Paris Agreement (PA), avoiding an "all to the carbon market" approach and instead applying proportional attribution is crucial for host countries to meet their mitigation commitments. Only under such an approach can blending harness the benefits of carbon markets while ensuring that climate finance flows support host countries' emission reduction objectives or increase overall global mitigation.

However, several factors must be considered when allocating ERs in a blended finance context:

- **Timing:** It is recommended that attribution be agreed at the outset of project development. Attribution analysis may be based on estimates of total mitigation costs, given that precise financial needs are unlikely to be known at this stage. Initial estimates can later be refined in line with pre-established conditions and processes. These early estimates will, on the one hand, inform carbon market financiers of the expected volume of ITMOs from the project, thereby providing certainty; and, on the other,

support the host country in deciding on the volume of ITMOs to authorise and the acceptable price level, which should not fall below the cost of mitigation (Spalding-Fecher et al., 2021).

- **Scope:** According to Spalding-Fecher et al. (2021), "attribution analysis should focus primarily on financial flows that support implementation and investment, rather than on more limited funding for activities such as technical assistance and capacity building" (p. iv).

- **Role of the host country:** It is crucial for host countries to establish a standardised framework clearly defining title to generated ERs, as well as well-defined accounting guidance for credit transfers and the reporting of climate finance activities. Only under such conditions can environmental integrity be ensured by eliminating the risk of double claiming and double counting (Mikolajczyk and 't Gilde, 2020). In addition, host countries could require attribution analyses as part of the rules governing ITMO authorisation and climate finance contributions (Spalding-Fecher et al., 2021).

Project-based carbon finance can be used to enhance traditional revenue streams through additional income from the sale of carbon credits, which is typically disbursed once the credits have been issued and sold. To benefit from funds catalysed by carbon market activities, upfront investment from other financial sources may therefore be required. This also implies that carbon finance can serve as a means of recovering investment costs over time. However, **additionality must be ensured**: the activity must demonstrate that it would not have taken place without revenues from the sale of carbon credits.

When these two sources of finance are combined within the same mitigation intervention, it is essential to determine the attribution approach, i.e. how mitigation outcomes are to be allocated across different financial flows.

- There is a risk of double counting when the same project receives both climate finance and carbon finance.

- However, solutions exist, such as structuring activities under a Programme of Activities (PoA), where one component is financed through the GCF or other climate finance sources and another component through carbon revenues.

The example below showcases such a co-financing approach.

Practical experience with GCF proposals: the case of Senegal's mini-grid project.

The first GCF funding approval, supporting solar mini-grids in rural Senegal, was granted in 2020 under the CFI project, with the West African Development Bank (BOAD) as the GCF Accredited Entity. The project aims to achieve universal electricity access in Senegal, focusing on the most vulnerable rural communities. These areas face challenges such as high investment costs, low returns, and

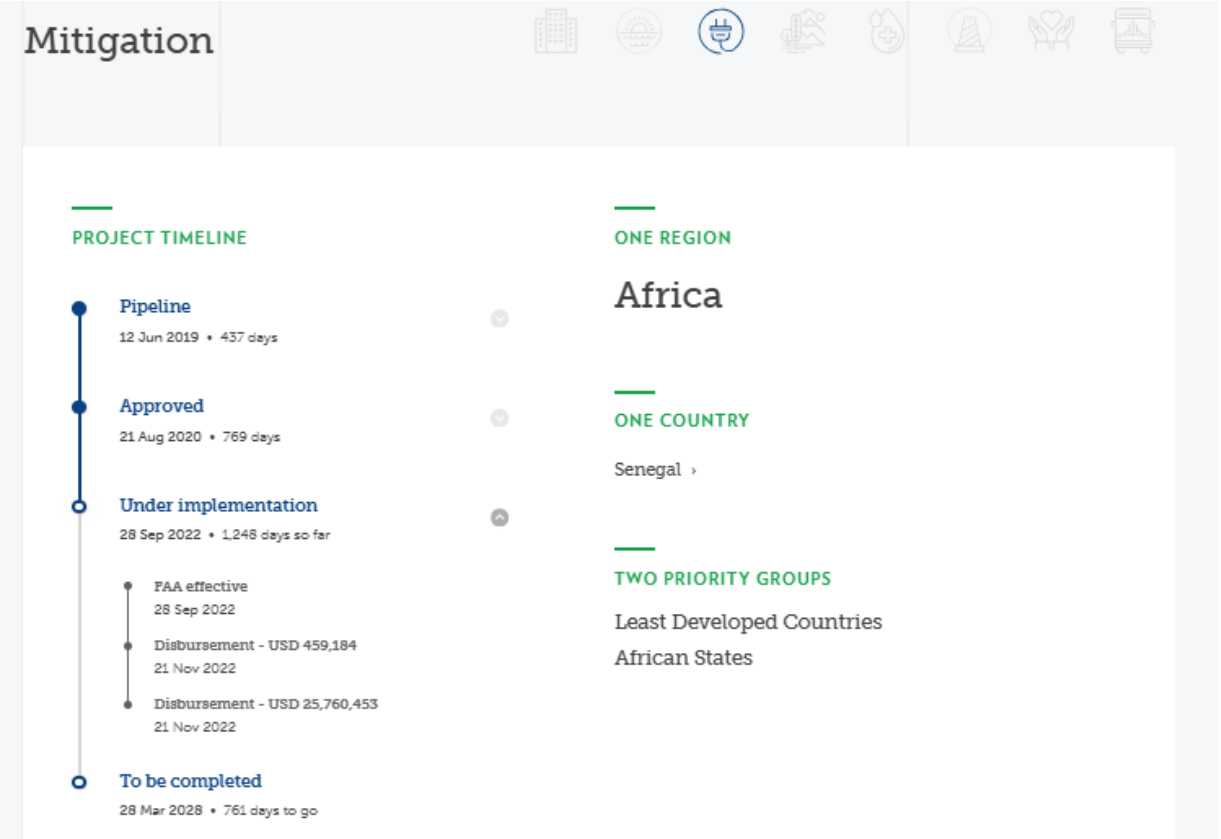
currency risks. The GCF provides concessional investment to de-risk local operators' participation, helping to deploy 100% solar mini-grids in 1,000 isolated villages across the country.

This project is particularly notable for integrating carbon markets and climate finance. The Senegalese Rural Electrification Agency (ASER) utilised the same UNFCCC-approved CDM methodologies for MRV as the basis for its GCF project. While this approach did not generate carbon credits, it allowed for a harmonised framework that tracks GHG impacts consistently and transparently. The project serves as an example of how carbon market methodologies can enhance climate finance efforts.

However, there were challenges in the process. ASER could not apply directly to the GCF due to the absence of a national GCF Accredited Entity. Instead, BOAD facilitated the process and mobilised co-financing from the World Bank, KfW, and the private sector. Despite approval in 2020, the Funded Activity Agreement didn't become effective until 2022 due to lengthy legal and administrative procedures. This delay highlights that while the GCF review process improves project design, it can also be a significant barrier, as the application process is bureaucratic, time-consuming, and lacks clear timelines.

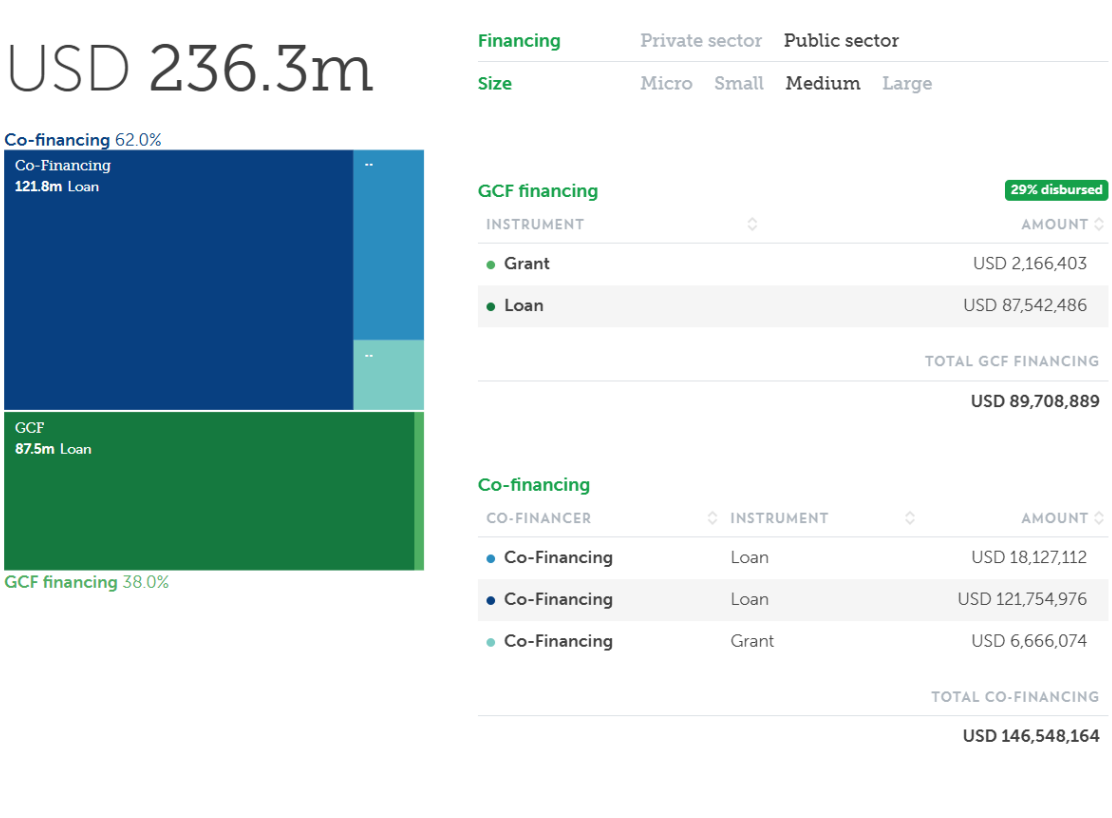
Figure 1 highlights key elements of the project, while Figure 2 outlines the financial resources required and the co-financing approach supporting this initiative.

Figure 1: Support mini-grids in rural Senegal - Project characteristics



Source: Green Climate Fund

Figure 2: Financial and investment details from the Support mini-grids in rural Senegal project



Source: Green Climate Fund

Key insights:

- Carbon market methodologies can enhance climate finance projects, providing a transparent and consistent MRV framework.
- While GCF approval improves project design, it also poses challenges in terms of bureaucracy, lengthy review processes, and a lack of clear timelines.
- The absence of nationally accredited entities is a major barrier, particularly in low-income countries, affecting their ability to access GCF funds effectively.

Learning from practical experiences:

In addition to exploring the linkages between market mechanisms and climate finance through GCF funding applications, capacity building plays a crucial role. Targeted support to help Accredited Entities navigate the GCF application process, alongside efforts to raise awareness among Article 6 DNAs and GCF NDAs on harmonising activity-level MRV with NDC accounting and reporting, can be instrumental in integrating climate finance and carbon markets in practical project settings.

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