



# **NAMA** Facility

On behalf of













## **Authored by**

Laura Sabogal-Reyes Johanna Riedmann

## **Contributions from**

Franki Jenkins

#### **Acknowledgements**

This working paper was co-authored by staff of the Technical Support Unit of NAMA Facility, namely Laura Sabogal Reyes, Johanna Riedmann and Franki Jenkins. The authors thank all applicants to the NAMA Facility for the effort invested in writing and submitting high quality outlines and proposals, which allow the NAMA Facility to undertake analyses on portfolio level. Further, we want to thank the Technical Support Unit of NAMA Facility for their valuable input and resources invested in the write-up of this working paper.

The NAMA Facility is a joint initiative of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), UK's Department for Business, Energy and Industrial Strategy (BEIS), the Danish Ministry of Climate, Energy and Utilities (KEFM), the Danish Ministry of Foreign Affairs (MFA), the European Union and the Children's Investment Fund Foundation (CIFF).

## **Table of Contents**

| 1. | Introduction   | 6  |  |  |  |
|----|--|----|--|--|--|
| a. | Setting the Scene  | 6  |  |  |  |
| 2. | Evolution of the Sector in the Framework of NDCs               | 7  |  |  |  |
| a. | Linking mitigation and adaptation in the AFOLU sector          | 9  |  |  |  |
| 3. | 3. AFOLU in the NAMA Facility's Portfolio                      |    |  |  |  |
| a. | The NAMA Facility  | 9  |  |  |  |
| b. | NSP Selection Process  | 9  |  |  |  |
| C. | NAMA Facility Portfolio Distribution                           | 10 |  |  |  |
| 4. | Data Analysis  | 10 |  |  |  |
|    | a. Data Analysis Methodology                                   |    |  |  |  |
|    | b. Key Data Analysis Findings                                  |    |  |  |  |
|    | i. Data Analysis: Key Quantitative Findings                    |    |  |  |  |
|    | ii. Data Analysis: Key Qualitative Findings and Lessons Learnt |    |  |  |  |
| 5. | Conclusion and Outlook   |    |  |  |  |
| 6. |  |    |  |  |  |

## **List of Figures**

| Figure 1. | Multiple ecosystem services, goods and benefits provided by land. Mitigation actions aim to enhance climate regulation, but this is only one of the many functions fulfilled by land |
|-----------|--|
| Figure 2. | Typology of mitigation contributions in the agricultural sectors in first vs. new/updated NDCs   |
| Figure 3. | Coverage of mitigation contributions in the agricultural sectors in first vs. new/updated NDCs, by sub-sector  |
| Figure 4. | Stylized representation of the project cycle of the NAMA Facility10  |
| Figure 5. | Portfolio breakdown across all Calls (Outlines and DPP level) and sectors11  |
| Figure 6. | Average scoring of the different sectors across the two categories of the NAMA Facility  |
| Figure 7. | Average scoring of all sectors across all assessment sub-categories and Calls at the Outline level   |

#### **Abbreviations**

**AFOLU** Agriculture, Forestry and Other Land Use

COP Conference of the Parties

DPP Detailed Preparation Phase

**ELE** Evaluation and Learning Exercise

**GHG** Greenhouse Gas

IPCC Intergovernmental Panel on Climate Change
 LULUCF Land Use, Other Land Use, and Forestry
 MRV Monitoring, Reporting and Verification
 NAMA Nationally Appropriate Mitigation Actions

**NSP** NAMA Support Project

NDC Nationally Determined Contribution

#### 1. Introduction

"Harnessing the Mitigation Potential of the AFOLU Sector: Lessons Learnt from the NAMA Facility Portfolio" captures lessons learnt for the Agriculture, Forestry and Land Use (AFOLU¹) sector based on the experience from, so far, eight Calls for NAMA Support Projects effected by the NAMA Facility between 2013 and 2021. In the race to limit temperature increases well below 2 degrees, the AFOLU sector is crucial as it generates around a quarter of anthropogenic GHG emissions globally. Furthermore, specifically in the context of the NAMA Facility, AFOLU is the second most prominent sector in terms of Outlines received.

Considering the global strategic importance of the sector for climate change mitigation and thus, its relevance for the NAMA Facility, this working paper aims to shed light on success factors, common pitfalls and more generally lessons learnt for the AFOLU sector as observed within the NAMA Facility.

This working paper is structured as follows: Section 1 sets the scene by introducing the sector, its potential, challenges and specificities. This is followed by section 2, which discusses the evolution of the sector in the framework of Nationally Determined Contributions (NDC) updates and reflects on the inexorable link between mitigation and adaptation. Section 3 introduces the reader to the NAMA Facility and the totality of its portfolio as well as the selection process of NAMA Support Project (NSPs). Finally, section 5 explores how the AFOLU sector is fairing at the portfolio level and discusses more granular findings gleaned from lessons learnt gathered from Outline and proposal assessments, and Evaluation and Learning Exercises (ELE) of NSPs which are now finished. Finally, section 6 concludes this working paper and discusses its outlook.

#### a. Setting the Scene

Since the advent of the Paris Agreement in 2015, countries around the world have been building momentum in the implementation of policies aimed at limiting global temperature increases well below 2 degrees. Unfortunately, so far, these efforts have fallen short of keeping the world on track to achieving this goal. Even in the aftermath of the new commitments reached at COP26 at the end of 2021, experts estimate the world is on a path towards at least 2.7 degrees warming in this century (UNEP, 2021, p.6).

In this context, the AFOLU sector is critical for achieving targets outlined under the framework of the Paris Agreement as it generates around a quarter (~10–12 GtCO2eq per year) of anthropogenic greenhouse gas (GHG) emissions (IPCC, 2014, p. 816). These emissions primarily stem from deforestation and agriculture from livestock, soil and nutrient management mainly resulting in emissions Carbon Dioxide (CO2), Methane (CH4) and Nitrous Oxide (N2O) (Bustamante et. Al, 2014). AFOLU-related emissions are expected to rise significantly, mostly driven by developing countries, due to projected increases in food production and land conversion by 2030 (IPCC, 2018), (Pradhan, et. Al, 2019). Consequently, it is expected that the sector's overall share in net global GHG emissions will grow if no decisive policy action is taken.

On this basis, the AFOLU sector will play a crucial role in stabilising global temperatures given that unlike other sectors, its mitigation potential is threefold as it can happen through: 1) supply side measures, i.e., by reducing GHG emissions per unit of land/animal/product; 2) enhancement of carbon sinks; and 3) demand-side options, i.e., behavioural change. Nevertheless, although the mitigation potential of the sector cannot be understated, harnessing it poses various challenges to policymakers. As explained by several authors, there are several hurdles to realising this potential including, but not limited to:

6

<sup>&</sup>lt;sup>1</sup> Agriculture, Forestry and Other Land Use (AFOLU) was a term first used in 2006 in the Intergovernmental Panel on Climate Change (IPCC) Guidelines for the anthropogenic greenhouse gas (GHG) emissions from two sectors which had previously been treated separately: Agriculture and LULUCF (Land Use, Land Use Change and Forestry).

- 1) Full GHG impacts, including those from feedbacks<sup>2</sup> or carbon leakage, are often difficult to be determined (Searchinger et al., 2008);
- 2) Feedbacks and potential trade-offs between the direct benefits of GHG reductions and other important uses of the land (see fig. 1), e.g., provision of livelihoods and energy, food security, maintenance of ecosystem services and biodiversity, amongst others (OECD, 2020);
- Maximising synergies between different types of land use and minimising negative effects requires conciliating distinct social, economic and environmental criteria, as well as taking into account the interests of diverse social groups (Martinez-Alier, 2002);
- 4) Changes in land use and ecosystems are scale-dependent and may proceed at different speeds, in different directions and at different scales (IPCC, 2014).

These challenges already hint at the high complexity of GHG mitigation activities in the AFOLU sector, and the challenges stakeholders face in the design of these activities compared to other sectors.



Figure 1. Multiple ecosystem services, goods and benefits provided by land. Mitigation actions aim to enhance climate regulation, but this is only one of the many functions fulfilled by land (Source: IPCC)

#### 2. Evolution of the Sector in the Framework of NDCs

In light of the sector's remarkable potential for GHG emission reductions, governments across the world have been ramping up their climate ambition by including or strengthening their AFOLU commitments in the framework of the update of Nationally Determined Contributions (NDCs). According to the FAO, mitigation ambition in the AFOLU sector has increased both in terms of coverage and quality across all regions (see figs. 2-3). As much as 95% of all updated NDCs submitted until July 2021, include mitigation in the agriculture and/or Land Use, Land Use Change and Forestry (LULUCF) sectors (see fig. 1). Most pledges cover forestry (with 79%), whilst 51% and 36% cover crop management and livestock, respectively. Other NDC updates cover energy from agricultural activities (35%), whilst few others cover

7

<sup>&</sup>lt;sup>2</sup> An interaction mechanism between processes in the →climate system is called a climate feedback, when the result of an initial process triggers changes in a second process that in turn influences the initial one. A positive feedback intensifies the original process, and a negative feedback reduces it (IPCC, 2018).

waste from the agricultural sector (13%) (FAO, 2021).

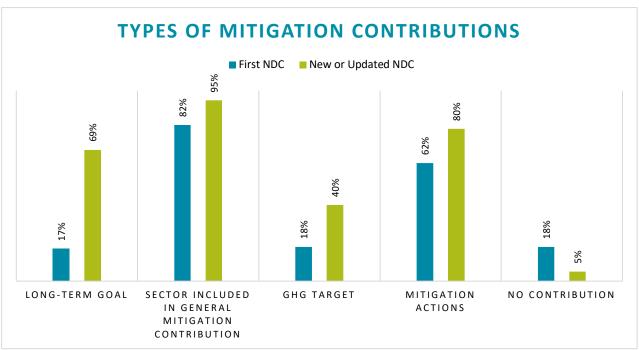


Figure 2. Typology of mitigation contributions in the agricultural sectors in first vs. new/updated NDCs (Source: FAO, 2021)

Furthermore, approximately a quarter of the updated NDCs include a GHG target specific to the agriculture sector, whilst a third include LULUCF GHG targets (see fig 2). These mitigation actions are primarily targeted towards carbon sequestration on forest lands and in coastal ecosystems and emission reductions from managed agricultural soils, croplands, enteric fermentation, and manure management (FAO, 2021).

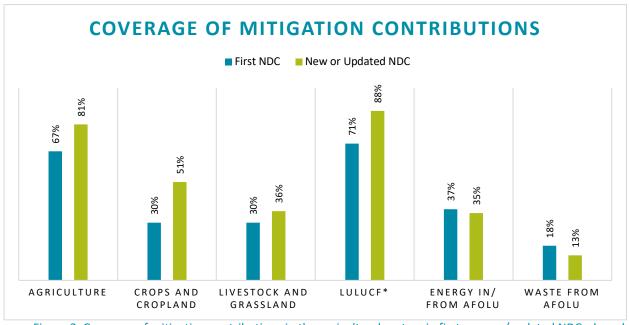


Figure 3. Coverage of mitigation contributions in the agricultural sectors in first vs. new/updated NDCs, by subsector (Source: FAO, 2021)

However, it is important to note, that although considerable progress has been made in the inclusion of AFOLU targets in the updated NDCs, there is a long way to go in terms of operationalizing these targets through policy design and implementation planning. Some remarkable examples of how this process

might look in practice include countries such as Ethiopia and Burkina Faso which pledged absolute unconditional and conditional AFOLU targets, that are further broken down into specific mitigation actions. (Federal Republic of Ethiopia, 2021), (Government of Burkina Faso, 2021). Another case worth highlighting is the one from the Republic of Congo's updated NDC which includes an unconditional and conditional forestry target. More importantly, this target is supported by the impressive progress in its policy framework since its first NDC through the development of an ambitious national REDD+ Strategy, a robust Forest Emissions Reference Level, and a monitoring system for forest emissions strongly anchored within government institutions (Federal Republic of Congo, 2021).

#### a. Linking mitigation and adaptation in the AFOLU sector

In comparison to other sectors, AFOLU interventions are uniquely placed to deliver on both mitigation and adaptation objectives simultaneously. Smallholder farmers, pastoralists, fisherfolk, community foresters and actors along agri-food value chains depend on climate-sensitive activities for their sustenance and livelihoods and are considered amongst the most vulnerable groups to climate variability and change (FAO, 2020), (IPCC, 2018). At the same time, reductions in emissions and the emission intensity of agricultural production, and enhancing carbon sequestration in biomass and soils, can significantly contribute to mitigating the 21 to 37 percent share of GHG emissions generated by the global food system<sup>3</sup> annually (IPCC, 2019). As such, the AFOLU sector features prominently amongst the adaptation and mitigation contributions set forth in the updated NDCs – up to 96 and 91 percent, respectively (WWF, 2021).

#### 3. AFOLU in the NAMA Facility's Portfolio

#### a. The NAMA Facility

The NAMA Facility is a multi-donor programme that supports the implementation of NAMA Support Projects (NSPs) that effect sector-wide shifts toward sustainable, irreversible, carbon-neutral pathways and by this contribute to the implementation of NDCs in developing countries and emerging economies. To identify the most ambitious NSPs, the NAMA Facility conducts open competitive Calls open to various sectors including AFOLU, Energy, Transport and Waste. So far, eight Calls for NAMA Support Projects (NSPs) have taken place on account of the support of the Donors amounting to more than 667 million Euros.

#### **b. NSP Selection Process**

All NSPs submitted to the NAMA Facility are evaluated under two categories, namely, ambition and feasibility. The ambition criteria seek to ensure that the NAMA Facility supports the most ambitious NSPs taking into consideration the relevant country and sector context. In total, up to 25 points can be assigned for this category. On the other hand, the feasibility criteria seek to ensure that the NSPs are not only highly ambitious but also likely to be implemented successfully. In total, up to 25 points can be assigned for feasibility.

To identify the most ambitious and feasible NSPs, a competitive two-phase selection process applies<sup>4</sup>:

• Phase 1 (Outline Phase): Selection is among the submitted NSP Outlines that undergo a thorough desk, and some of them an onsite/in-depth, assessment by an independent external evaluator and the TSU. NSPs that successfully pass the assessment are recommended to the Board for funding of the DPP.

<sup>&</sup>lt;sup>3</sup> All the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities, including socioeconomic and environmental outcomes at the global level (IPCC, 2019)

<sup>&</sup>lt;sup>4</sup> For more information please see General Information Document-Ambition Initiative-Round Two.pdf (nama-facility.org)

- Phase 2 (DPP/Proposal Phase): During the DPP, support will be provided for more detailed preparation of NSPs. The provision of funding support for the DPP will be linked to the progress achieved with regard to crucial milestones in the DPP. At the end of the DPP, the selection will be based on the full-fledged NSP Proposal, which is the outcome of the DPP. NSP Proposals undergo an assessment by the TSU and external experts; NSP Proposals successfully passing the assessment are recommended to the Board. According to the assessment result and the available funding, the Board takes a final decision on providing funding for the implementation of the NSP.
- Phase 3 Implementation: Once the Board approves the NSP, it enters implementation stage.



Figure 4. Stylized representation of the project cycle of the NAMA Facility

#### c. NAMA Facility Portfolio Distribution

Table 1. AFOLU NSPs in the NAMA Facility Portfolio

In terms of the NAMA Facility's Portfolio, AFOLU is the second most-represented sector after energy, reflecting the sectoral distribution of global emissions. As of January 2022, the NAMA Facility Portfolio is composed of 37 NSPs in DPP and implementation. Out of these, 19 are related to Energy, 8 to AFOLU, 6 to Transport and 4 to Waste. AFOLU NSPs are distributed as follows:

| NCD               | Cult anaton | Call            | Chalus   | Time all |
|-------------------|-------------|-----------------|----------|----------|
| NSP               | Sub-sector  | Call            | Status   | Timel    |
| Costa Rica Coffee | Agriculture | 1 <sup>st</sup> | Inactive | 03.20    |
| Thailand Rice     | Agriculture | 4 <sup>th</sup> | Active   | 07.20    |
| Peru Coffee       | Agriculture | 5th             | Inactive | N/A      |

line 015 - 12.2022018 - 07.2023Peru Corree Agriculture 5tn inactive N/A 5<sup>th</sup> **Palestine Olive Value Chain** 02.2022 Active Agriculture  $2^{nd}$ **Tajikistan Forestry Forestry** Inactive N/A 6<sup>th</sup> Madagascar REDD+ **Forestry** Active 05.2020 - 09.20214<sup>th</sup> **Brazil Beef** Agriculture Active 6<sup>th</sup> **Honduras Livestock** Agriculture Active

### 4. Data Analysis

#### a. Data Analysis Methodology

Considering the strategic importance of the sector for climate change mitigation globally and its relevance at a portfolio level, in May 2021 the NAMA Facility started gathering insights of the quality of projects from this particular sector at various stages of preparation and implementation. These insights were based on data from Outlines and proposals for Call 1 to 7 and the Ambition Initiative (which took place between 2013 and 2021). The goal of this analysis was to understand how the sector was fairing in

comparison to the rest of the portfolio and to identify any sector-specific challenges that could be addressed to maximise the potential of GHG emission reductions in current or future NSPs.

To achieve this goal, 446 NSP Outlines submitted to the NAMA Facility from Call 1 to Call 8<sup>5</sup>, were analysed to assess the portfolio-wide sectoral distribution. Furthermore, the scores of Outline assessments for 337 eligible Outlines were compared across years and sectors. All Outlines were coded for their granular Outline assessment scores on potential for transformational change, financial ambition, mitigation potential, project rationale, project design and DPP concept. Additionally, 74 Outline assessments from the AFOLU sector were subject of a qualitative analysis, whereby the observations from internal and external assessors across Calls were collected to identify overarching learnings and reoccurring weaknesses. The qualitative analysis was complemented and contrasted with the observations collected by external consultants for the Evaluation and Learning exercises of the NSPs Costa Rica Coffee<sup>6</sup> and Thailand Rice. The section that follows outlines the findings of this mixed-method research on the NAMA Facility's portfolio.

#### b. Key Data Analysis Findings

#### i. Data Analysis: Key Quantitative Findings

A qualitative analysis of the Outlines revealed that across the 8 Calls of the NAMA Facility, the AFOLU sector has consistently been the second most prominent one after energy with a share of 25% (see fig. 5). However, the fraction of AFOLU NSPs which successfully passed from the Outline stage to the Detailed Preparation Phase (DPP) saw a 6 percentage point decrease, whereas, in the case of Energy the share only decreased by one percentage point to 51%. On the contrary, in the case of waste the share remained constant, whereas transport witnessed a nine-percentage point increase. It is important to highlight that performing well in terms of scoring at the Outline stage does not mean that NSPs will automatically be chosen for DPP. As mentioned under section 3b, all NSPs are assessed considering the relevant country and sector context. Furthermore, in the case of Implementation, we see that this gap becomes larger as the share of AFOLU NSPs further decreases to 12%, whilst energy remains at 50%. In the case of waste and transport, both sectors increase their share even further with 25% and 13%, respectively. This means that between the first stage of the project cycle, namely, the Outline assessment and the implementation, the share of AFOLU NSPs is halved, whereas in the case of the other sectors the share remains stable or even double as in the case of transport.

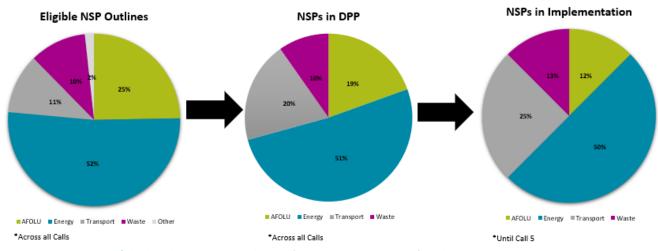


Figure 5. Portfolio breakdown across all Calls (Outlines and DPP level) and sectors

<sup>&</sup>lt;sup>5</sup> For more information, please see www.nama-facility.org

<sup>&</sup>lt;sup>6</sup> For more information, please see <u>ELE Costa Rica Coffee full text.pdf (nama-facility.org)</u>

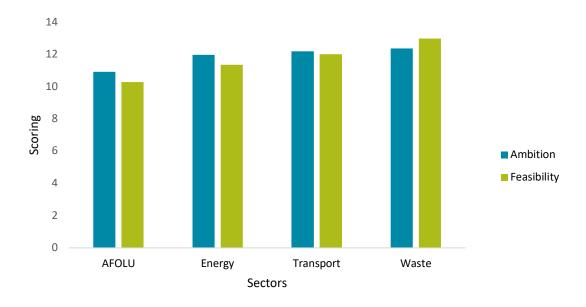


Figure 6. Average scoring of the different sectors across the two categories of the NAMA Facility

As explained under section 3b, all NSPs are evaluated under two categories, namely, ambition and feasibility. Figure 5 shows the average scores across both categories in all eight Calls up to date for all sectors. In this way, we can see that on average, AFOLU NSPs score fewer points across both ambition and feasibility in comparison to the rest of the sectors, with 11 and 10 points respectively. A notable observation is that although energy represents the largest sector both in terms of applicants and in portfolio presence, it only scores one point more than AFOLU in average ambition and feasibility, with 12 and 11 points, respectively. Transport performs slightly better than energy in terms of feasibility with 12 points, whilst ambition is also 12 points. Overall, waste is the strongest performer with 12 points for ambition and 13 for feasibility. It is worth noting that all sectors except waste score higher in ambition than feasibility.

Both assessment categories, ambition, and feasibility, are further broken down into three sub-categories each, i.e., potential for transformational change, financial ambition and mitigation potential in the case of the former and project rationale, project design and DPP concept, for the latter. Fig. 6 shows the average scoring for each subcategory. The chart highlights that AFOLU NSPs are the weakest performers across all categories, except for mitigation potential where it scored comparable to Outlines from the energy sector.

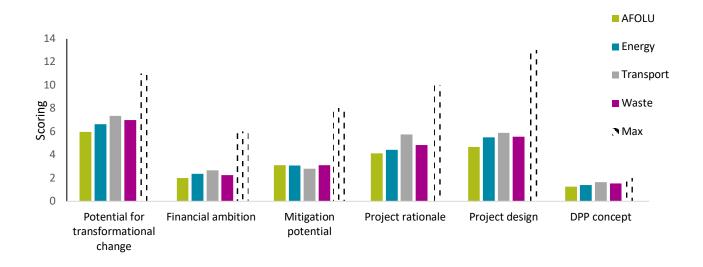


Figure 7. Average scoring of all sectors across all assessment sub-categories and Calls at the Outline level.

#### ii. Data Analysis: Key Qualitative Findings and Lessons Learnt

The second part of this analysis is presented in the form of qualitative findings, which are complemented by a literature review. These findings are summarized in the form of challenges and lessons learnt and are presented following the rationale of NSPs.

#### **Ambition**

#### **Transformational change**

- Given that most AFOLU NSPs target smallholder farms, it is crucial that interventions are scaled up
  at the level of local, regional and national governments to trigger transformational change.
  Although challenging, this is especially relevant in countries with limited governance capacity and
  where there are several levels of government.
- In the case of NSPs in the forestry sector, it is important to consider the legal framework and the status quo of law enforcement as these are the basis of the mitigation efforts. For example, in many countries, land ownership does not automatically imply that the landowner has rights over the trees on the land (CIFOR, 2020).
- Due to the many uses of the land (as shown in fig 1.), NSPs in the AFOLU sector should pay special attention to environmental (e.g., biodiversity) and social safeguards (e.g., land rights). Allocating and safeguarding tenure rights require strong governance. The participation of local stakeholders in defining tenure rights and land use planning could further strengthen respect for legal and customary rights (Chigbu et al. 2017). Furthermore, in many societies men and women do not have equal rights to ownership of land or trees. As a result, access to resources may be subject to gender issues that need to be understood to be able to ensure AFOLU NSPs do not exclude female producers or fail to consider their knowledge and experience (CIFOR, 2020). In line with this point, NSPs should consider the potential trade-offs and feedbacks that might happen between GHG mitigation and other important land use activities, such as food security, provision of livelihoods, amongst others. One potential pathway to address these concerns could be the use or support of jurisdictional approaches<sup>7</sup>.
- Ideally, the design of AFOLU interventions should be user-centric and based on a participatory
  engagement design as this can improve effectiveness. In practical terms, this means that NSPs
  should strive to include farmers in the design process of financial mechanisms and any other policy
  instruments derived from the NSP to really address their needs, vested interests and in that way
  facilitate the scalability and sustainability of the intervention.
- When considering timelines, it is important that interventions in the AFOLU sector consider different factors that could delay the project. Some relevant factors include, but are not limited to, the alignment of financial mechanisms to production cycles, the execution of pilots and uptake of lessons learnt, undertaking activities to foster behavioural change and acquiring the buy-in of all relevant stakeholders involved, e.g., government officials, farmer/producer associations, financial institutions, amongst others. Regarding the latter point, this process can be remarkably comprehensive as land use projects often fall under several jurisdictions (and consequently authorities).
- Given the target segment, AFOLU interventions heavily rely on the long-term adoption of climatefriendly activities by the target group (which goes beyond adoption of clean-friendly activities and/or technologies). In this context, behavioural change is essential and must be appropriately

13

<sup>&</sup>lt;sup>7</sup> Integrated landscape approach which aims to reconcile competing social, economic and environmental objectives through participation by a full range of stakeholders across sectors, implemented within government administrative boundaries, and with a form of government involvement (Conservation International, 2019). For more information: Jurisdictional Sustainability: A Primer for Practitioners - GCF Task Force (gcftf.org)

emphasised in the NSP design.

#### Financial mechanism

- As stated earlier, the target group associated with the AFOLU sector tends to be smallholder farmers, who often face multiple barriers to access formal financial services. Barriers include a lack of collateral (especially for women), low trust of and experience with financial institutions, high risk and lower returns (FAO, 2019) (Goldman et. Al., 2016). Furthermore, the revenue stream of this group is highly dependent on crop cycles which are prone to delays due to adverse weather events, changing climatic patterns, pests, amongst other. The latter point results in a reinforcing pattern under which farmers lose their crops and consequently, their livelihoods, making them even more "unbankable" in the eyes of the financial sector. In this context, commercial financial institutions are often an unsuitable option to cater for this market, i.e., if they have not yet come in contact with this segment. Thus, it is crucial that NSPs have a clear picture of the landscape of relevant financial actors to get the buy-in of microfinance institutions, "cajas rurales" or credit cooperatives, which offer products and conditions adjusted to the reality of the target group. Furthermore, the financial mechanisms designed within the framework of the NSP must align lending with harvesting cycles. In case that the relevant financial institutions have no experience with the target segment, it is important to think about their training needs.
- Compared to other sectors, the financial mechanisms often contemplated in AFOLU NSPs are highly reliant on grants and highly subsidised concessional finance. Thereby, in order to assure sustainability and scalability, NSPs should ideate set ups that facilitate financial leverage through forms of private sector engagement. These could be, for example, savings book approach, microfinancing, tax incentives, risk sharing mechanisms, e.g., insurance (on crop production), crowdfunding, amongst many others.
- In line with the sustainability goal beyond the NSP lifetime, it is highly recommended for NSPs to
  consider the design of blended finance instruments which allow NAMA Facility finance and
  commercial finance to share the risk of the investment. In this way, the hurdle posed by the
  potential lack of experience of commercial institutions with the segment and consequent perceived
  risk can be addressed.
- To facilitate the uptake of financial mechanisms designed within the NSP, it is recommended that these build on existing structures which are close to farmers and farmer organisations. Ideally, they should already have established business relations, e.g., farmer associations, processing companies, service providers and many more.

#### **Mitigation Potential**

- As described in the literature and confirmed by the experience of the NAMA Facility, one of the main challenges of NSPs in the AFOLU sector is the quantification of the mitigation potential as sometimes there is limited available data. Thus, several AFOLU NSPs are either rather conservative in their potential (which comparatively against other projects might mean less cost efficiency) or too ambitious, raising questions about feasibility. Given the complexity of this task, it is recommended that NSPs make sure to allocate enough time to collect the necessary data during the preparatory phase of the Outline and to leverage access to such information from public officials where possible (e.g., in the framework of NDC GHG accounting). If all the information cannot be provided it should be adequately acknowledged and be subject to further analysis for a prospective DPP (e.g., DPP).
- To not hinder their mitigation potential, NSPs must avoid deforestation (at all costs). As such, NSPs should, from an early stage, be informed about current governance and law enforcement frameworks. Another important point linked to this is that NSPs should adequately assess potential

<sup>8</sup> Cajas rurales: rural banks

rebound effects/leakage risks and propose appropriate risk mitigation measures. Even if related information is not readily available NSPs should not overlook these potential issues at the Outline stage.

- Often NSPs propose the creation of a MRV system as a side activity and stipulate a rather short
  period of time. The design and implementation of a MRV system is a time-consuming and complex
  endeavour and should be acknowledged as such in the set-up of the project design. It is highly
  encouraged that NSPs identify potential synergies with other related initiatives funded by other
  donors and/or with the available policy framework (e.g. national REDD+ strategy) early on before
  proposing the creation of one.
- The timing of mitigation benefits from activities in the AFOLU sector can vary as a result of both the nature of the activity itself (e.g., due to issues of non-permanence of CO2 caused by natural and/or human-induced events) and the rates of adoption (i.e., how long it takes for the mitigation potential of the relevant technology/practice to become "operational") (Cherubini et al., 2012). It is recommended that NSPs consider timing when judging and calculating the effectiveness of a mitigation action.

#### **Feasibility**

#### **Project Rationale**

- Oftentimes AFOLU NSPs propose multiple intervention approaches and/or cross-sectoral technologies, for example combining reforestation and improvement of soil management, with the deployment of clean energy technologies. This means that several approaches and/or technologies are deployed simultaneously, e.g., seedlings, live fences and solar-PV driven systems. Naturally, the former will take much longer to become "operational" in terms of its mitigation potential than the latter. As a consequence, it is important for NSPs to align the different time horizons of such a setup across the Outline, DPP concept and business plan.
- Another important point is that of labelling and certification. Several NSPs propose the creation of
  a certified product to capture new markets and increase profits. Before doing so, it is important to
  make sure there is indeed a market for the certified product (whether international and/or
  domestic). Furthermore, the rationale, cost-effectiveness, budgetary constraints and timing
  assumptions should remain realistic. If possible, NSPs should make sure to build these activities on
  existing structures.
- NSPs should focus on the proper definition of the target group and any potential different subgroups that may be relevant already at the Outline stage and tailor the barrier analysis accordingly. Examples include the formal versus informal sector, different type of farmers, amongst others.

#### **Project Design**

- Complexity of AFOLU projects can make it tempting to have too many indicators and with it too
  many areas of activities, unnecessarily complicating monitoring efforts. AFOLU NSPs should
  therefore create SMART indicators which add value to the M&E exercise.
- A key point of AFOLU NSPs is the need to adequately frame the narrative. Although for the NAMA Facility, and consequently for the NSP, the focus should always remain mitigation, the reality is that for farmers, climate change adaptation tends to be more relevant and important than mitigation. This should be considered when approaching the target group and designing the financial mechanisms and other policy instruments derived from the NSP. NSPs should always strive to align their support mechanisms and activities with the objectives, needs and vested interests of target

<sup>&</sup>lt;sup>9</sup> See point 1 under "Project Rationale".

groups, such as farmers, to ensure the NSPs' sustainability and scalability.

• In many instances, NSPs have proposed TA schemes which include the use of specific hardware and access to the internet. Before proposing such an approach, it is important to make sure farmers do have access to this equipment and that they are interested in using them for educational purposes.

#### **DPP Concept**

• The DPP concept should serve to consolidate and complete processes that were started at the Outline stage which might be related to stakeholder engagement and the collection of baseline data, amongst others. Example of these might include the closing of contracts and formalisation of any other agreements with relevant actors, finishing the collection of baseline information data, etc. To make efficient use of the limited time and resources available during DPP, it is crucial that some preparatory work is already done during the conceptualization of the Outline.

#### 5. Conclusion and Outlook

Considering its remarkable potential for reduction of GHG emissions and a clear global push towards committed GHG sector target settings in NDC updates, the AFOLU sector plays an ever growing important and strategic role in global climate change mitigation. As the second biggest sector in terms of Outlines received across all Calls up to date with 25%, the sector plays a crucial role for the NAMA Facility portfolio. However, due to the complexity of the sector, the design and implementation of NSPs remains challenging.

With this working paper, the NAMA Facility intends to reflect and portray common pitfalls and lessons learnt, along with several recommendations aimed at maximizing the potential of GHG emission reductions in current and future NSPs. Furthermore, it is a way of supporting applicants in diverse ways for successful Outline development and fostering an exchange of lessons learnt with the wider climate finance community. In this way, the NAMA Facility's underlines its commitment to continue supporting AFOLU NSPs and assessing them in a way that is coherent with the sector's intricacies, thus encouraging further AFOLU NSPs to apply for support.

#### 6. Bibliography

- 1. UNEP. (2021). Emissions Gap Report 2021. Available at: Emissions Gap Report 2021 (unep.org).
- 2. Smith P., M. Bustamante, H. Ahammad, H. Clark, H. Dong, E.A. Elsiddig, H. Haberl, R. Harper, J. House, M. Jafari, O. Masera, C. Mbow, N.H. Ravindranath, C.W. Rice, C. Robledo Abad, A. Romanovskaya, F. Sperling, and F. Tubiello. (2014). Agriculture, Forestry and Other Land Use (AFOLU). In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- 3. Bustamante, M., Robledo-Abad, C., Harper, R., Mbow, C., Ravindranat, N. H., Sperling, F., ... & Smith, P. (2014). Co-benefits, trade-offs, barriers and policies for greenhouse gas mitigation in the agriculture, forestry and other land use (AFOLU) sector. Global change biology, 20(10), 3270-3290.
- 4. Pradhan, B. B., Chaichaloempreecha, A., & Limmeechokchai, B. (2019). GHG mitigation in agriculture, forestry and other land use (AFOLU) sector in Thailand. Carbon balance and management, 14(1), 1-17.
- 5. Searchinger, T., Heimlich, R., Houghton, R. A., Dong, F., Elobeid, A., Fabiosa, J., ... & Yu, T. H. (2008). Use of US croplands for biofuels increases greenhouse gases through emissions from land-use change. Science, 319(5867), 1238-1240.
- OECD. (2020). Policy strategies and challenges for climate change mitigation in the agriculture, forestry and other land use (AFOLU) sector. Available at: <a href="https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/CA/ENV/EPOC(2-020)3/FINAL&docLanguage=En">https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/CA/ENV/EPOC(2-020)3/FINAL&docLanguage=En</a>
- 7. Mart, J., & Alier, U. (2002). The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation. Edward Elgar Publishing.
- 8. Federal Democratic Republic of Ethiopia. (2021). Updated Nationally Determined Contribution. Available at: <a href="Ethiopia's updated NDC JULY 2021 Submission">Ethiopia's updated NDC JULY 2021 Submission</a>. pdf (unfccc.int)
- 9. People's Republic of Burkina Faso. (2021). Updated Nationally Determined Contribution 2021-2025. Available at: Rapport CDN BKFA.pdf (unfccc.int)
- 10. Republic of Congo. (2021). Updated Nationally Determined Contribution. Available at: <a href="CDN Congo.pdf">CDN Congo.pdf</a> (unfccc.int)
- 11. Crumpler, K., Meybeck, A., Federici, S., Salvatore, M., Damen, B., Gagliardi, G., Dasgupta, S., Bloise, M., Wolf, J. and Bernoux, M. (2020). A common framework for agriculture and land use in the nationally determined contributions. Environment and Natural Resources Management Working Papers No. 85. Rome, FAO. https://doi.org/10.4060/cb1589e
- 12. IPCC. (2018). Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Intergovernmental Panel on Climate Change. 630 pp. (also available at <a href="https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15">https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15</a> Full Report High Res.pdf
- 13. Mbow, C., Rosenzweig, C., Barioni, L. G., Benton, T. G., Herrero, M., Krishnapillai, M., ... & Xu, Y. (2019). Food Security in Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems. Geneva: Intergovernmental Panel on Climate Change (IPCC) https://www.ipcc.ch/site/assets/uploads/2019/11/08\_Chapter-5.pdf
- 14. WWF. (2021). NDCs a force in nature? Available at: wwf\_ndcs\_for\_nature\_4<sup>th</sup>\_edition.pdf (panda.org)
- 15. NAMA Facility. (2022). The NAMA Facility. Available at: www.nama-facility.org
- 16. NAMA Facility. (2022). Projects. Available at: Projects NAMA Facility (nama-facility.org)
- 17. Ambero and Oxford Policy Management. (2020). Evaluation and Learning I Costa Rica Low Carbon Coffee. Available at: <a href="ELE Costa Rica Coffee full text.pdf">ELE Costa Rica Coffee full text.pdf</a> (nama-facility.org)
- 18. Louman, B., Meybeck, A., Mulder, G., Brady, M., Fremy, L., Savenije, H., ... & Trines, E. (2020). Innovative finance for sustainable landscapes (Vol. 7). CIFOR. Available at: <a href="FTA-WP-7.pdf">FTA-WP-7.pdf</a> (cifor.org)
- 19. Chigbu, U. E., Schopf, A., de Vries, W. T., Masum, F., Mabikke, S., Antonio, D., & Espinoza, J. (2017). Combining land-use planning and tenure security: A tenure responsive land-use planning approach for developing countries. Journal of Environmental Planning and Management, 60(9), 1622-1639.

- 20. FAO. (2019). Women's access to rural finance: challenges and opportunities. Available at: <u>Women's</u> access to rural finance: challenges and opportunities (fao.org)
- 21. Goldman, L., Tsan, M., Dogandjieva, R., Colina, C., Daga, S., & Woolworth, V. (2016). Inflection point: Unlocking growth in the era of farmer finance. Initiative for Smallholder Finance and the Rural and Agricultural Finance Learning Lab.
- 22. Cherubini, F., Guest, G., & Strømman, A. H. (2012). Application of probability distributions to the modeling of biogenic CO 2 fluxes in life cycle assessment. Gcb Bioenergy, 4(6), 784-798.
- 23. Lamb, W. F., Wiedmann, T., Pongratz, J., Andrew, R., Crippa, M., Olivier, J. G., ... & Minx, J. C. (2021). A review of trends and drivers of greenhouse gas emissions by sector from 1990 to 2018. Environmental research letters.
- 24. Crumpler, K., Abi Khalil, R., Tanganelli, E., Rai, N., Roffredi, L., Meybeck, A., Umulisa, V., Wolf, J. and Bernoux, M. 2021. 2021 (Interim) Global update report Agriculture, Forestry and Fisheries in the Nationally Determined Contributions. Environment and Natural Resources Management Working Paper No. 91. Rome, FAO. Available at: <a href="https://doi.org/10.4060/cb7442en">https://doi.org/10.4060/cb7442en</a>
- 25. Widhiyanto, I., Nuryartono, N., Harianto, H., & Siregar, H. (2018). The analysis of farmers' financial literacy and its' impact on microcredit accessibility with interest subsidy on agricultural sector. International Journal of Economics and Financial Issues, 8(3), 148.
- 26. Ambali, O. I., & Begho, T. (2021). Examining the relationship between farmers' perceived trust and investment preferences. Journal of International Development, 33(8), 1290-1303.
- 27. FAO (2017). The future of food and agriculture-Trends and challenges. Annual Report, 296, 1-180.
- 28. Beasley, E., Murray, L. S., Funk, J., Lujan, B., Kasprzyk, K., & Burns, D. (2019). Guide to including nature in nationally determined contributions. A Checklist of Information and Accounting Approaches for Natural Climate solutions.
- 29. Fobissie, K.; Chia, E.; Enongene, K.; Oeba, V.O. (2019). Agriculture, forestry and other land uses in Nationally Determined Contributions: the Outlook for Africa. International Forestry Review.

Harnessing the Mitigation Potential of the AFOLU Sector: Lessons Learnt from the NAMA Facility's Portfolio (2013-2020)

## Imprint/Contact

**Published by:** NAMA Facility, Technical Support Unit, Köthener Straße 2–3, 10963 Berlin, Germany

 $\textbf{Design:} \ \mathsf{SCHUMACHER} - \mathsf{Brand} + \mathsf{Interaction} \ \mathsf{Design,} \ \mathsf{www.schumacher-visuell.de}$ 

March 2022

For further information: www.nama-facility.org