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Financing emission reductions in the Agriculture, Forestry and Other Land Use (AFOLU) sector

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USAID Lowering Emissions in Asia's Forests (USAID LEAF)

Financing emission reductions in the Agriculture, Forestry and Other Land Use (AFOLU) sector

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The USAID Lowering Emissions in Asia's Forests (USAID LEAF) Program is a five-year regional project (2011-2016) focused on achieving meaningful and sustainable reductions in greenhouse gas (GHG) emissions from the forest-land use sector across six target countries: Thailand, Laos, Vietnam, Cambodia, Malaysia and Papua New Guinea.

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Executive Summary

As Parties to the UNFCCC continue to negotiate a global agreement to combat climate change, developing countries are increasingly taking proactive steps to reduce emissions, including through Low Emissions Development Strategies (LEDS). Due to the significant role of the agriculture, forestry and land use (AFOLU) sector in the economies *and* the emissions profiles of many developing countries, it is essential for AFOLU to be a central focus of LEDS. Developing and implementing ambitious AFOLU LEDS will require mobilization of financial resources. While finances may initially be sought from international donors, sustainably financing AFOLU LEDS in the long term will require a broad range of financing types and sources.

This report aims to assist AFOLU LEDS proponents with developing sustainable financing strategies for their projects and programs. Its overall objectives are to raise awareness and promote understanding of the different types of financing available for implementing national and sub-national LEDS in the AFOLU sector, and to provide guidance on how to match finance types to particular kinds of investments. It outlines the key financing considerations in designing a sustainably financed LEDS and discusses the relevance of different financial mechanisms and sources of financing to various types of LEDS investments. The report also provides guidance on how to access various financing sources by outlining associated prerequisites and criteria.

Financing considerations

Different financing sources and mechanisms are suitable for different emissions reduction activities. In order to maximize the likelihood of successfully financing a LEDS, proponents should integrate financing considerations from the start of strategy development. The LEDS should be designed to present an underlying investment that responds to the interest of potential financiers and can integrate one or more suitable financing instruments. An AFOLU LEDS will need to combine *enabling* and *asset* investments to achieve financial sustainability.

- **Enabling investments** involve creating incentives for further investment in an activity, such as through stakeholder engagement and cooperation, building legal and regulatory frameworks, improving capacity or conducting feasibility studies. These investments often do not offer any immediate financial return.
- **Asset investments** involve producing an asset (e.g., goods such as certified timber or sustainable agricultural products or environmental services related to water, carbon or biodiversity, etc.) that generates a financial return.

In designing a LEDS and matching its components with financing sources and mechanisms, the following questions need to be considered.

Will the investment generate a financial return?

Financial providers range from private investors seeking to maximize profit to public institutions, NGOs and charitable foundations aiming to promote social and environmental goals with no expectation of financial returns. Impact investors and development finance institutions are among those falling in the middle, often being willing to accept a relatively lower return in exchange for social and environmental benefits.

In the early stages of LEDS development and implementation, public actors often provide funding through grants, concessional loans and risk mitigation measures to support establishment of an enabling environment. Asset investments may then be incorporated to enable the initiative to become self-sustaining. Such investments may initially be financed through debt or equity, though funding would ultimately be derived from sales of the asset involved. The mix of financial mechanisms and sources of financing can therefore be expected to change over time as the business case for LEDS activities is strengthened.

Are suitable governance and investment frameworks in place?

Strong governance and investment frameworks are crucial to attracting international public and private funding for LEDS. Jurisdictions should therefore focus their energy and resources not only on developing LEDS, but also on improving governance frameworks and the investment environment. Proponents should also ensure that the design of LEDS is tailored toward the existing capacities and realities of the jurisdiction, in terms of the type of activities proposed, the types of finance they seek to attract and the planned monitoring and financial management arrangements.

Do the activities have the potential to leverage private finance?

Private financing is crucial to ensure the sustainability of LEDS and consideration should be given to how private finance can be leveraged. For example government budget can be used to provide concessionary loans and subsidies, or international public finance can be used to provide risk mitigation or to fund feasibility studies or pilots that provide proof of concept that can encourage early engagement in low emissions activities.

What are the costs of using multiple financing sources?

While accessing multiple sources of finance can increase the total amount of funding, it can also raise costs as each financier is likely to have different requirements, which can impose significant demand on those with lower capacities. Proponents should therefore consider management costs associated with various funding sources and where possible choose sources that have synergies with one another.

Financial mechanisms for LEDS

In designing LEDS financing strategies it is important to understand the different financial mechanisms for LEDS and the types of activities to which they are suited.

- **National budget allocations** are lines in the national budget directed towards certain programs or initiatives that promote public policy goals.
- **Grants** are a non-repayable form of financial support that typically come with a number of conditions, such as achieving agreed milestones and adhering to performance criteria and social and environmental safeguards. They are highly suitable to enabling investments.
- **Purchase and sale payments** (e.g., sale contracts, put options and call options) are agreements to commercialize goods or services, sometimes in advance of their being available for direct sale. They are suitable to investments that produce saleable goods or services.
- **Equity finance** refers to the provision of capital by an investor in return for shares in the ownership of an organization and is primarily suitable for asset investments. Public investors seeking to leverage private capital may agree to purchase higher risk shares in order that lower-risk (and higher return) shares can be offered to private entities.
- **Debt finance** refers to a range of financial instruments whereby finance provided is repayable at a later date, usually plus interest. The two principal forms of debt finance are *loans* and *bonds*. Debt finance is suitable for asset investments. Debt is often provided by public bodies on concessional terms to projects that further a public interest, such as those with climate benefit. These terms may include lower interest rates or longer payback periods.
- **Debt swaps** are agreements in which all or part of a debt owed – typically by a sovereign state, though potentially also by a sub-national jurisdiction – is cancelled by the holder in return for investment of money saved in public programs. They are suitable for non-profit generating activities and are typically used to support conservation programs.
- **Indirect finance** (e.g., tax concessions, direct subsidies, discounted provision of goods/services) refers to incentives offered by governments to certain types of actor or

those engaging in certain types of activities. They are most suitable for activities that are not likely to generate profits without the incentive.

- **Risk mitigation instruments** (e.g., insurance, guarantees) are mechanisms for reducing the risk associated with the provision of finance, thus making investment more attractive and allowing greater amounts of finance to be leveraged. They are suitable for activities that generate returns but have higher risk.

Principle sources of AFOLU finance

In defining financing strategies it is important to understand and consider the interests and requirements of different financiers. The main financing sources available for AFOLU LEDS and the kinds of investments for which they are generally applicable are summarized below.

International public finance

The main types of international public finance for AFOLU LEDS are outlined below. These categories are provided for ease of analysis; they are not mutually exclusive and many financing entities provide more than one type of support. Information on the amount of funding still available and the eligibility criteria of various specific financing entities is provided in Annex 1.

- **Technical support and institutional and capacity building** refers to finance for activities to increase the institutional and technical capacity for LEDS development and implementation. Examples include UN-REDD, FCPF-Readiness Fund, Norway's International Climate and Forests Initiative (NICFI) and Australia's International Forest Carbon Initiative.
- **Non-results-based support to AFOLU mitigation** refers to finance for AFOLU mitigation efforts where emissions reductions are measured without sufficient accuracy to enable results-based payments, or not measured at all. Examples include GEF, the UK International Climate Fund and the Forest Investment Program (FIP).
- **Finance for adaptation measures** refers to support for initiatives that build climate change resilience in the AFOLU sector while also reducing emissions. Examples include the Least Developed Country Fund, Special Climate Change Fund, Adaptation Fund and Pilot Program for Climate Resilience.
- **Non-market results-based finance** refers to payments for reductions in emissions that do not result in the transfer of emission rights. Examples include Norway's agreements with Guyana, Brazil, and Indonesia; the NAMA Facility; the Green Climate Fund (GCF); and Germany's REDD+ Early Movers program.
- **Carbon payments** refer to payments for emissions reductions where the title for the emissions reductions is transferred from the host country. These emissions reductions may be cancelled and considered a contribution to global public goods, or they may be retired as part of the buyer's own national emissions reduction targets. Examples include Japan's Bilateral Offset Crediting Mechanism, the FCPF Carbon Fund, and possibly the World Bank's BioCarbon Fund Initiative for Sustainable Forest Landscapes.
- **Public return-motivated finance** refers to funding provided by Development Finance Institutions (DFIs) to public and private entities for climate-related investments that generate returns. Examples of DFIs that have invested in AFOLU LEDS include the Netherlands Development Finance Company (FMO), the European Investment Bank (EIB), the Overseas Private Investment Corporation (OPIC), KfW, the World Bank and the International Finance Corporation.

Private finance

Sustainably financing AFOLU LEDS in the long term will require the mobilization of private finance. The primary sources of private finance for AFOLU LEDS are:

- **Carbon market finance**: Voluntary market projects have been an important early source of finance for REDD+ However, carbon credits, including those from forestry projects, currently face low global demand and prices and the future of international markets for forest-related carbon credits remains uncertain.
- **Foundations**: Foundations are non-governmental organizations established for non-profit, charitable purposes for the common good. Many provide funding for forest conservation and related purposes.
- **Impact investors**: Impact investments are investments in companies, organizations, and funds aimed at generating social and environmental impact alongside a financial return. Impact investment is a growing source of finance for sustainable activities in the AFOLU sector, particularly where governments are willing to underwrite investment risk.
- **Private companies**: Many private companies are making investments to reduce their environmental impacts and sustainably source agriculture and forestry products. Other measures such as establishing land set-asides, reforestation and ecosystem restoration, and investment in REDD+ and other conservation strategies have also been adopted. Understanding companies' incentives for adopting lower emissions business practices can help LEDS proponents build an enabling environment to promote such practices and leverage private investment.
- **Banks and other lending institutions**: Commercial banks, quasi-public banks and microfinance institutions play a key role in providing direct finance as well as risk guarantees and other financial products and services to help AFOLU LEDS initiatives access finance.

Domestic public finance

Governments are the main investors in agriculture and forestry in many developing countries through subsidies, grants, concessional loans, equipment and training, and financing sector governance. Broadly, governments use two types of strategy by to enhance cash flow towards low-carbon objectives:

- **Revenue raising measures** to obtain funds from the private sector for use in publicly financed programs, including LEDS. Examples include environmental taxes and fees and CSR donations collected by public funds.
- **Policy measures** to leverage private finance, such as subsidies, tax incentives, and risk guarantees. These measures do not directly raise finances for projects but can be significantly more important in terms of the amount of finance that is ultimately leveraged toward a policy goal.

Conclusion

Financing considerations must be at the heart of LEDS design. Rather than first designing LEDS and then seeking financing, proponents should seek to involve potential funders at an early stage and base activities around the kinds and amounts of financing expected to be available.

In seeking funding, LEDS proponents should begin by understanding the finance landscape relevant to their jurisdiction, including the applicable financial mechanisms and sources of financing. They will need to establish connections with a broad range of actors and understand their interests, capabilities and concerns. In many cases, they will need to take a risk in pursuing a strategy that has yet to be tested.

Despite the availability of international public finance for AFOLU LEDS, disbursement rates have been low as a result of a range of factors. Some of these are institutional – for example weaknesses in stakeholder engagement, monitoring frameworks, implementation capacity or land tenure rights – while others simply arise from the absence of investable projects. Countries and donors will need to address these critical issues in order to get crucial public finance flowing

more freely. Yet, in the long term international public finance will fall far short of needs, and a broader array of financing sources will ultimately need to be mobilized.

Given these issues, AFOLU LEDS proponents should make efforts to draw on multiple financing sources and creatively leverage further support in reaching strategic goals. Combining domestic and international public funding with private financing also provides for synergies whereby different sources and types of financing can respectively support creation of an enabling environment and low-emissions asset production within a given jurisdiction. In this context both the enabling environment and the business case for LEDS should be developed to mobilize the public and private support necessary for sustainability. To achieve this, the following issues will need to be addressed.

- **Land tenure, governance and investment frameworks:** Unclear land tenure and weak governance present major barriers to large-scale international investments in the agriculture and forestry sector in developing countries. Governments will need to clarify land tenure rights – of both smallholders and larger investors – and increase transparency and accountability to improve the security of investments. Continued work to strengthen law enforcement is also needed to increase the cost of environmentally destructive behavior. Strengthening enforcement of contractual rights is similarly crucial to provide security to investors.
- **Financial returns and co-benefits:** As the private sector is generally only interested in investments that deliver financial returns and in light of the uncertain future of carbon markets, AFOLU LEDS proponents need to focus on supporting the development and implementation of business plans for sustainable agricultural and forestry commodity production. Aiming towards increasing climate change resilience and economic competitiveness will better resonate with governments and the private sector in many economies.
- **Regulatory and incentive frameworks:** Clear policy, institutional and regulatory frameworks will need to be established to incentivize investment in AFOLU LEDS through a combination of both 'carrots' and 'sticks'.
    - **Reform subsidies:** Subsidies to increase production in the agriculture and forestry sector dwarf finance in support of AFOLU LEDS in many countries. Attention needs to be paid to reforming subsidies, removing perverse incentives and redirecting private finance towards sustainable production.
    - **Regulate and incentivize financial institutions:** Governments can encourage banks and investors to invest in sustainable practices through actions such as tightening banking and financial regulations, mandating reporting standards to increase transparency of portfolios, developing national guidelines on sustainable banking, and providing training and capacity building.
    - **Regulate and incentivize commodity companies:** Governments can encourage companies to green their supply chains by developing regulations that compel companies to adopt certain practices, providing financial incentives to promote green investment, and advocating uptake of voluntary standards.
- **Risk sharing:** Appropriate financial arrangements and instruments are needed to increase the attractiveness of investments in AFOLU LEDS to private investors. For example, public-private partnerships can be formed with public investors lowering the risk return ratio for private investors e.g., through assumption of first-losses.

1 Introduction

1.1 Background

As Parties to the United Nations Framework Convention on Climate Change (UNFCCC) continue to negotiate a global agreement to combat climate change, many developing countries are increasingly taking pro-active steps to reduce emissions at home. Collaborating through regional platforms such as the Asia LEDS Partnership, countries are beginning to adopt Low-Emission Development Strategies (LEDS), which are understood as a

> *"strategic framework that articulates concrete actions, policies, programs and implementation plans to advance economic growth, improve environmental management, and meet development objectives. This framework provides a foundation for achieving long term, measurable greenhouse gas emission reductions as compared to a business-as-usual development pathway*."[1]

LEDS - and close allies such as low-carbon development strategies, low-emission land-use plans and green growth strategies – may also be piloted at the sub-national level and offer a mechanism through which countries can expand their economies while contributing to the global effort to combat climate change.

As a key area in the economies of many developing countries, the agriculture, forestry and land use (AFOLU) sector is likely to be a central focus of LEDS. LEDS in the AFOLU sector may comprise a wide variety of strategies, from shifting agricultural expansion away from forest areas to undertaking tourism-focused conservation or sustainable forest management. While the costs of these activities may vary significantly, it is clear that developing and implementing ambitious LEDS in the AFOLU sector will require substantial amounts of finance to be mobilized. Initially, a significant portion of this finance is likely to be sought from international donors that have traditionally funded efforts to reduce emissions in the AFOLU sector, particularly in less developed countries. In middle-income countries domestic governments already play a more or less equal role.[2] International donor funding is limited, however, and sustainably financing AFOLU LEDS in the long term is likely to require a broad range of financing types and sources.

1.2 Objective and approach

The overall objective of this report is to raise awareness and promote understanding of the different types of financing available for implementing national and sub-national Low Emission Development Strategies (LEDS) in the AFOLU sector and provide guidance on how to match finance types to particular kinds of investments. While quantitative data on finance is presented in parts, the overarching focus is to qualitatively summarize the characteristics of different types of finance and how they can effectively be applied to AFOLU LEDS. This report is developed in the context of the USAID LEAF program,[3] but contains broad lessons that could be applied in other developing countries.

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[1] LEDS Global Partnership, *Stage 1: Organizing the LEDS Process*, Open Energy Information, http://en.openei.org/wiki/Stage_1:_Organizing_the_LEDS_Process.

[2] Streck, C. and C. Parker, "Financing REDD+," in *Analysing REDD+: Challenges and choices*, edited by Arild Angelsen et al., CIFOR, 2012.

[3] The USAID LEAF Program focuses on six target countries: Thailand, Laos, Vietnam, Cambodia, Malaysia and Papua New Guinea. It also shares lessons learned with six other countries: Bangladesh, Bhutan, India, Indonesia, Nepal and the Philippines. http://www.leafasia.org/where-leaf-works.

Recognizing that ambitious AFOLU LEDS will require finance from a broad range of sources, the report covers both public and private finance from domestic and international sources. We also assess which sources of finance may be relevant for different types of LEDS – from national strategies to sub-national programs and initiatives that may be at different stages of development. The report also looks at financial flows that are not specifically designed to reduce greenhouse gas (GHG) emissions but can nevertheless be used to achieve low-carbon goals.

The report is structured across five sections. Section 2 looks at the characteristics of LEDS investments that are relevant to identifying the types of finance they are likely to attract. Section 3 describes the main types of financial mechanisms that can be applied to AFOLU LEDS and discusses their characteristics and the kinds of investments to which they are suited. Section 4 outlines the chief sources of domestic and international finance – both public and private – and discusses how LEDS proponents can position themselves to access such finance. Section 5 presents overarching conclusions.

2 Characteristics of LEDS investments

When seeking to identify financing options for a LEDS investment two primary questions must be asked: *who would be interested in investing in this strategy?* and *what kind of financing instrument would be suitable?* While the following sections describe in more detail specific financing instruments (section 3) and financing sources (section 4) and their applicability to given investment types, this section sets the framework for this analysis by looking at some key characteristics of LEDS investments that are central to answering the questions identified above.

In order to maximize the likelihood of successfully financing a LEDS, proponents should seek to understand the relationship between strategy design and financing opportunities, and integrate these two elements from the start. The LEDS should accordingly be designed in such a way that it presents an underlying investment that responds to the interest of potential financiers and can integrate one or more suitable financing instruments. Particularly for larger and more multi-faceted LEDS, this may mean designing the various components differently, with a view to attracting multiple financing sources and types. It can also mean that one type of financing mechanism may be used to provide incentives to attract other financing for entities implementing specific activities. As much as possible, proponents should seek to ensure that LEDS are financially sustainable, and use more expensive forms of finance for creation of conditions that allow implementation of a strategy that can be sustained in the long term by cheaper forms of finance.

Against this background, this section discusses four key questions in matching AFOLU LEDS activities to the right financing stream:

1. Will the investment generate a (financial or non-financial) return?
2. Do the activities have the potential to leverage private finance?
3. Is supporting infrastructure in place?
4. What are the costs of using multiple financing sources?

Will the investment generate a return?

Whether or not an investment is expected to generate *financial* returns is perhaps the most important question in determining which investors are likely to provide funding. The majority of private investors are profit-motivated and will generally only be interested in investments that generate returns. In contrast, private foundations, which aim to invest in initiatives that achieve social or environmental goals, may not need to generate any return. The relatively new but growing group of impact investors presents a third type of funding. Impact investors seek to make a profit but may be willing to accept a relatively lower return in exchange for social and environmental benefits.

Public investors – in particular multilateral donors and national governments – generally have much greater capacity to make investments that do not generate direct financial returns but instead generate 'non-financial' returns. There are generally in the form of direct environmental, social and/or economic benefits, or that create an enabling environment for future investments that will generate financial returns. Different types of public donor will have varying abilities to make investments that generate either no or smaller returns. Generally, the lower the financial returns expected on an investment, the greater the non-financial returns that will be expected. Public donors typically seek investments that support their own national policy interests. In many cases these will involve promoting specific environmental or social goals. In other cases donors may also seek to promote their own economic and trade related interests and/or pursue

investments that generate returns to their own economy – whether financial or non-financial.[4] International donors may also be less willing to provide finance that generates financial returns to competitor or relatively more developed economies, and in these cases may prefer to channel their finance as concessional loans rather than grants.

Figure 1 depicts a number of different categories of investor based on their requirements for financial returns versus social and environmental benefits.

Figure 1: Priorities of different investor categories (Source: Margot Hill Clarvis, Financing Strategies for Integrated Landscape Investment: Review of Financing Institutions and Mechanisms, Earth Security Initiative, 2014)

A related way to categorize investors is by their interest in *enabling* or *asset* investments. Enabling investments can be understood as those directed toward the creation of an incentive for further investment in an activity, for example through creating the circumstances to enable commercial success and improve competitiveness against competing products. These investments usually do not usually produce financial returns. Asset investments, by contrast, involve investing in creation of an asset (i.e., good or service), where a financial return is expected.[5] Figure 2 depicts a range of actors involved in the provision of AFOLU finance on two axes based on their enabling versus asset investment focus and whether their public versus private orientation. It also depicts the kinds of activities they invest in and the types of instruments they use.

[4] See section 4.2 for guidance on some of the main private sector motivations for making sustainable AFOLU investments.
[5] See section 4.2 for guidance on some of the main private sector motivations for making sustainable AFOLU investments.

Figure 2: Types of investments made by selected public and private investors (Adapted from: Margot Hill Clarvis, Financing Strategies for Integrated Landscape Investment: Review of Financing Institutions and Mechanisms, Earth Security Initiative, 2014)

Do activities have the potential to leverage private finance?

Limited public funding makes leveraging of private finances crucial in ensuring that LEDS are sustainably financed. To do this, proponents should ask:

(i) are the actions of the private sector relevant to achieving the objectives of the LEDS?;
(ii) what is the interest of the private sector?;[6] and
(iii) how can the LEDS be designed to capitalize on that interest and direct it towards the objective of the LEDS?

While certain LEDS may be based around public sector initiatives alone, it is likely that many have the potential to include private involvement in some aspects.

Section 4.3 provides examples of how USAID LEAF countries have used domestic public finance to leverage private finance for AFOLU activities. In designing AFOLU LEDS, countries can employ similar strategies but using international public finance. For example, grants or concessional loans with long repayment periods can be used to provide loans or to de-risk LEDS-related investments made by small or medium enterprises. In this regard, de-risking instruments offer a relatively low-cost, though potentially high risk, way to leverage debt finance.[7] Similarly, results-based payments earned for emissions reductions can be invested in funds that provide grants, loans or other forms of finance to businesses or communities to undertake forest conservation and management. Studies have shown that government support through these kinds of strategies has been crucial in unlocking private finance at a scale necessary for large investments.[8]

At present insufficient research has been done on the relative effectiveness of different financing instruments in leveraging additional finance. Table 1 depicts some anecdotal information based on available sources.

[6] See section 4.2 for guidance on some of the main private sector motivations for making sustainable AFOLU investments.
[7] Ibid.
[8] Ibid.

Table 1: Finance leveraged by different funding instruments[9]

Instrument	Finance stream	Methodology	Leverage achieved
Grants (debt finance)	A range of grants surveyed for the Report of the Secretary-General's High-level Advisory Group on Climate Change Financing	Grant funds: debt finance raised	1:8 - 1:10
Grants (co-finance)	Global Environment Facility (GEF) grants	Grant funds: public and private co-finance raised	Up to 1:7
Carbon Finance	Clean Development Mechanism (CDM) finance	CER revenue: total capital investment	1:3 - 1:4.5
Non-concessional loans	A range of loans surveyed for the Report of the Secretary-General's High-level Advisory Group on Climate Change Financing	Public spending: private capital raised	1:2 - 1:5
Highly concessional loans	International Finance Corporation (IFC) lending	MDB lending: other sources of co-financing	1:1 - 1.5

Is supporting infrastructure in place?

Generally speaking, strong governance and investment frameworks are crucial to attracting international funding. Jurisdictions with weaker governance and investment frameworks will therefore have more limited options, both in terms of sources and financing instruments. For instance:

- Countries with lower credit ratings will find it difficult to issue bonds or obtain commercial loans, and will need to rely on grant finance or concessional loans, typically from multilateral entities such as development banks.
- Results-based finance for REDD+ is typically directed toward countries that have strong governance and financial management systems in place;
- Jurisdictions with stable government and a long history of positive public-private cooperation will be far more attractive partners for public-private partnerships;
- Incentives that seek to leverage private finance will be more effective in jurisdictions that have given coherent policy signals, such as removing perverse incentives or implementing sustainability standards.

The consequences of these factors are twofold. Firstly, LEDS that are implemented in jurisdictions that have strong governance and investment frameworks will typically find it easier to attract financing from a much broader range of sources, both public and private. Jurisdictions should therefore focus their energy and resources not only on developing attractive LEDS, but on improving governance frameworks and investment climates, both generally and specifically

[9] Adapted from Green Growth Action Alliance, *The Green Investment Report: the ways and means to unlock private finance for green growth,* World Economic Forum, Geneva, Switzerland, 2013.

for the AFOLU sector.[10] Such activities can also be supported within LEDS. While jurisdictions will have to weigh the respective advantages of building capacity for accessing finance in the future and accessing finance to fund low emission initiatives in the short term, it is worth keeping in mind that the benefits of a strong investment climate can be very substantial in terms of total investment attracted.[11] Secondly, proponents should ensure that the design of LEDS is tailored toward the existing capacities and realities of the jurisdiction, in terms of the type of activities proposed, the types of finance they seek to attract and the financial management arrangements proposed.

The development of domestic incentive systems presents a promising strategy to increase public and private investments by creating the necessary investment climate for AFOLU initiatives. Effective administration of incentive-based payment systems (e.g., payments for ecosystem services) while mobilizing finance toward low-emission goals also demonstrates national and subnational capacity to manage investments. Domestic incentive systems can also strengthen MRV capacities and increase country appeal given that ability to effectively monitor activities is often a critical precondition to receiving public climate finance, and results-based payments in particular (e.g. REDD+).

What are the costs of using multiple financing sources?

While accessing multiple sources of finance can increase the sum total of funding obtained, it can also raise costs. International public donors generally require compliance with eligibility criteria and reporting requirements, and private investors also typically impose requirements. Certain types of finance also entail legal requirements in terms of reporting and disclosure. Together these requirements impose costs which can be demanding, especially for those with lower capacities. Proponents should therefore consider management costs associated with various funding sources and where possible choose sources that have synergies with one another. In addition, the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action commit donors to rely more on country systems, and where possible countries should work with donors to develop suitable domestic systems (e.g., for REDD+ safeguards).

[10] In 2013, just 1.8% of all climate finance (including both developed and developing country investments) was aimed at the AFOLU sector. The majority of investments involve the renewable energy sector, which is seen as lower risk due to supporting government policies and the existence of innovative financial and business models. Establishing similarly effective national policies and administrative systems in the AFOLU sector is therefore crucial.

[11] For example, as indicated in Section 3.1, international public finance for AFOLU in Southeast Asia is predominantly concentrated in just a few countries, mostly due to a lack of institutional capacity and high perceived risk in the region.

3 Financial mechanisms for LEDS

LEDS in the AFOLU sector will need to incorporate a broad range of objectives and activities and draw on a similarly wide range of financial mechanisms that are tailored to individual activities. Governments or other entities seeking to mobilize finance for LEDS should give careful consideration to the form of finance that is most suitable for each investment, taking into account the type of project or initiative (including its ability to generate revenue), its scale and stage of development and the actors involved. This section therefore describes the main types of financial mechanism that can be applied to LEDS, outlines their main characteristics and considers the kinds of interventions they are best suited towards. Table 2 below provides an overview of these mechanisms.

Table 2: Characteristics of financing mechanisms

Instrument	Return required	Financing available up front	Cost to provider	Cost to recipient	Other considerations	Examples of investments to which instrument is suited
National budget allocations	None	Yes	High, unless financed through specific revenue stream	Very low	Subject to fluctuations if not ring-fenced	Funding government programs, subsidy schemes etc.
Grants	None	Yes	High	Very low (unless co-finance required)	Conditions typically apply and periodic milestones must be reached	Initial research, feasibility studies, capacity building
Purchase and sale payments	Transfer of goods/ services	Yes in case of call options; potentially in case of forward sale contracts	Usually low, depending on terms	Usually low	Forward contracts or put options can help sellers to attract other forms of finance	Projects resulting in generation of sustainable goods or carbon credits
Equity	Generally high, with higher returns required for higher risk	Yes	Low, but high risk	Medium	Finance usually only available when viable business opportunity already exists; Different share categories can be tailored to different investor categories	Investments in sustainable agriculture or forestry enterprises
Non-concessional loans	Medium-high, depending on interest rate	Yes	Low	High		Agriculture/forestry investments: – by large enterprises; or – with short asset maturity times; or – with lower risk profile
Concessional loans	Medium (Principal + typically low interest)	Yes	Medium	Medium	Different concessions can be used depending on circumstances (e.g. low interest; delayed interest; reduced collateral requirements)	Agriculture/forestry investments: – by small/medium enterprises; or – with long asset maturity times; or – with higher risk profile and higher non-financial benefits

Instrument	Return required	Financing available up front	Cost to provider	Cost to recipient	Other considerations	Examples of investments to which instrument is suited
Bonds	Low-medium, depending on risk profile (Principal + typically low interest)	Yes	Generally low	Generally low to medium, but high transaction costs	Large size and high credit rating of issuer usually required	Financing transition to sustainability of large agriculture producer; Financing large, long-term government program
Debt Swaps	No	Yes	Medium, since debt is foregone but typically relates to debt that was high-risk and less likely to be repaid	No cost to recipient per se, but recipient required to invest agreed amount	Suited for large, long-term investments; high-quality programs and stable institutions/financial management capacities required	National conservation programs, such as protected area management
Subsidies and indirect finance	No	Depends on type and design	High, though this may be in form of revenue foregone	Low	Subsidies should be carefully designed to only provide the incentive strictly needed to motivate desired behavior and ideally phase out over time	Incentivizing specified sustainable business models in AFOLU sector
Risk mitigation (insurance, guarantee)	Guarantee fees payable	Instrument does not provide stand-alone finance	Depends on whether guarantee or insurance claimed	High if provided by private sector; low if provided by public sector	Important to balance risks with public benefits in determining whether to grant mechanism	Supporting investors to access debt capital in high-risk environments

3.1 National budget allocations and earmarks

In most legal systems, governments can create lines in their national budgets directed towards certain programs or initiatives. These budget lines are typically channeled through the ministry or other government agency responsible for implementing the program, and must be managed in accordance with government rules and procedures. While budgets are typically prepared on an annual basis, potentially creating financial uncertainty for multi-year programs, it is possible in many countries for the legislation to establish a program to authorize multi-year budget appropriations. This strategy, often known as earmarking or ring-fencing, can serve to secure budget over the program's lifetime and protect it from the fluctuations to which other government programs are exposed.

A related strategy to ensure continued finance is to ring-fence specific revenue streams. For example, in many countries that have adopted a carbon tax, revenues from the tax are set aside for purposes such as investing in clean energy or assisting persons affected by the tax. This may be done through budget set-asides or, in some cases, directing revenues towards a special fund. Similarly, countries operating payment for ecosystem services schemes have directed revenues into a fund from which finance is in turn directed toward service providers (e.g. the Viet Nam PES system, described in section 4.3 below).

3.2 Grants

Grants involve the provision of finance (or goods/services) from a grantor to a grantee, typically for a specific purpose. Grants are non-repayable and do not carry returns on investments, but usually come with a number of conditions, such as achieving agreed milestones and adhering to performance criteria and social and environmental safeguards.

Often, a portion of a grant will be provided up front and the rest provided upon attainment of agreed milestones. In other cases, grants are contingent upon the achievement of results (results-based payments) such as emission reductions. Grants are a common mode of finance provided by international donors to developing countries. They are also provided by governments to domestic private recipients such as small farmers or community organizations, as well as to research organizations. Foundations and non-governmental organizations also frequently act as grantees.

Since grants do not require repayment or return on investment, they are highly suitable to investments that do not themselves generate a financial return. These include investments with a sole public-good focus, and those that seek to create the right circumstances for further investment ('enabling investment'). In terms of sustainable AFOLU financing they may be suitable for public activities such as institutional strengthening and improving legal and policy frameworks for investment. They can also be used to provide start-up capital for enterprises that have difficulty raising debt or equity finance due to small size, high risk, or the early stage of development of a business initiative.

From the perspective of the grantee the non-repayable nature of grants is a key advantage as full attention can be given to building knowledge and expertise, testing new concepts, or focusing on social and environmental goals. It may also be the only form of finance available for smaller and more pioneering start-ups that do not have their own capital. On the other hand, some grantors may attach a wide range of conditions, which may be burdensome. From the grantor perspective, grants provide the opportunity to focus on public benefits and exert control over social and environmental outcomes. The lack of return makes them an expensive form of finance, however, and hence they should be reserved for investments where other forms of capital are not feasible, and/or focused on building conditions for attracting more sustainable finance.

3.3 Purchase and sale payments

Where a LEDS is expected to result in the creation of saleable goods or services, financial arrangements can be made to commercialize those products. Saleable products arising out of AFOLU LEDS include a wide range of sustainably produced goods, from raw agricultural or forest commodities to value-added products derived from certified sustainable commodities. Services associated with sustainable activities, such as certification services or training in sustainable practices can also be commercialized. In addition to such tangible goods and services, environmental goods such as carbon or biodiversity offsets, including those under voluntary carbon standards and potentially emerging from international mechanisms, can also be commercialized. A variation of these is payment for ecosystem services which does not result in the transfer of a legal asset such as a carbon credit, but rather consists of payment for ecosystem conservation and management.

Depending on their nature, a range of financial instruments may be available to commercialize the goods or services in question before they are available for direct sale, including:

1. *Forward contracts.* Contracts in which parties agree on the purchase and sale of goods before they are produced. They can include a variety of terms, including fixed or variable

purchase quantities and payments, and may include provision for advance payments, which can help to finance the production of the goods. Where no advance payments are provided, forward contracts are nonetheless useful is ensuring demand and future income, thereby potentially attracting upfront finance.

2. *Put options.* Contracts under which the potential seller purchases the right to sell a given quantity of goods at a specified time (or period) in the future, but without the obligation to do so. Where exercised, the purchase is made at a pre-agreed 'strike price', which is typically set at the lower end of expected market prices, ensuring the seller a minimum level of return. While put options impose up-front costs to sellers rather than attracting up-front finance, they do ensure a minimum future income, thereby helping to attract investment.
3. *Call options.* The reverse of a put option, a call option provides a potential buyer with the right, but not the obligation, to purchase specified goods in the future. Such purchase would similarly be subject to an agreed 'strike price', and a call option will typically only be exercised where the market price is above the strike price. Call options provide sellers with a source of upfront finance, though potentially with a cost to future sales earnings.

The contracts described above are naturally only available where the generation of the product or service is highly certain. Where call options or forward purchase contracts are made and delivery cannot be achieved, purchasers will typically be entitled to compensation. In some circumstances where delivery is less certain, sellers may be able to negotiate terms that provide for only the sale of products actually produced, though buyers will naturally seek more a favorable price or conditions in return.

3.4 Equity finance

Equity finance refers to the provision of capital by an investor in return for shares in the ownership of an organization. This ownership share is known as equity, and will typically entitle the holder to a share of profits earned by the organization ('dividends'). Depending on the type of shares that are purchased, the equity holder may also assume some decision-making power within the organization.

Equity investments are typically profit-motivated, and so equity is primarily suitable for asset investments, for example in enterprises engaging in sustainable forestry or agriculture. Depending on the jurisdiction it may be possible to issue a range of different categories of shares and these can be targeted toward investors with different motivations. For example, some shares may carry greater rights to share in profits, while others may carry greater decision-making rights. Preference shares may also entitle certain investors to the first share of profits attained, which may be targeted to investors with lower tolerance of risk. Equity capital can therefore be applied to multiple stages in a project or program, including funding start-up, expansion or continued operations.

Equity investments are considered riskier than investments such as loans, since dividends are not guaranteed and in the event of bankruptcy an equity investor has the last claim to the organization's resources. Equity investors therefore usually require a higher rate of return than other investors, though some investors may be willing to accept lower returns and potentially higher risks for greater control or social and environmental benefits (e.g. impact investors). Public investors seeking to leverage private capital may purchase higher risk shares such that lower-risk (and higher return) shares may be offered to private entities. Public entities following

this approach may seek some level of control over an organization's operations to help ensure that their policy objectives are met.[12]

3.5 Debt finance

Debt finance refers to a range of financial instruments that provide finance that is repayable at a later date, usually plus interest. The two principal forms of debt finance are *loans* and *bonds*. Loans involve the provision of finance by a lending organization (the 'creditor') to a borrowing organization (the 'borrower') in return for the agreement by the borrower to repay the loan amount (the 'principal') plus an agreed amount of interest. A variation is the profit-participating loan, though which the creditor additionally receives the right to participate in the profits of either the company as a whole or the specific venture it is financing, in return for which it may offer lower interest rates. Bonds similarly involve the provision of up front finance by an investor to a borrower (the 'bond issuer') in return for an agreement to repay the value of the bond (also known as the 'principal') at a later date and to make periodic interest payments (known as 'coupons').

There are several notable differences between loans and bonds. On one hand, basic loans are relatively uncomplicated and can be provided in a broad range of sizes, from several hundred dollars to many millions of dollars. Borrowers typically need to provide security to cover the value of the loan, though public lenders may sometimes be willing to accept less security when providing loans that have social or environmental objectives. Bonds, by contrast, are relatively complex and are typically only issued for upwards of USD 2-5 million, and the bond issuer must be of sufficient size to guarantee such an amount. They are therefore suitable for governments and large corporations to raise finance but not for small businesses or NGOs. Another difference is that sub-units of a bond can be traded between investors, each representing a portion of the capital raised. Since the pool of creditors is widened the borrower can generally raise more capital than through a loan.

Since they require repayment, loans are best suited for financing AFOLU LEDS activities associated with asset investments. Finance is provided upfront, and so they are generally well-suited for providing start-up capital. Repayment of loans from private financial institutions will often need to begin relatively soon after the principal is received, and so they are best suited to investments that generate returns relatively quickly, for example climate-smart agriculture investments in annual crops. However, concessional loans provided by public institutions may allow for repayment to begin after a longer period, making them suitable for investments with a longer return period, such as sustainable timber plantations. Public institutions may also provide private financial institutions with capital to provide concessional loans to small businesses for specified sustainable investments, known as 'green credit lines'.

In recent years issuers have begun to provide bonds that are specifically issued for climate-related investments. Climate bonds have also been issued by development agencies to raise capital investment in low carbon projects in developing countries (e.g. Agence Française de Développement). Climate bonds currently have an estimated value of USD 346 billion and fund activities mostly in the transport and energy sectors. Only a small percentage of bonds associated with climate change mitigation (less than 1%) are in agriculture and forestry, and all of these are for activities in developed countries. To-date, around USD 4.2 billion worth of bonds

[12] Oates, N., M. Leggett, M. Cranford and H. Vickers, *The Little Forest Finance Book: 14 catalysts to scale up forest-friendly finance*, Global Canopy Programme, 2012.

have been issued to finance private agriculture and forestry investments, 95% of which have been for sustainable paper and pulp manufacture and sustainable forest management.[13]

Efforts are, however, underway to develop criteria to allow issuance of bonds specifically for sustainable or 'climate friendly' agriculture and forestry.[14] It is important to remember, however, that while the use of such methodologies may make bonds more attractive to investors with an interest in sustainability, investors will still need to be assured of the financial credibility of the bond issuer, as well as the credibility of the underlying investment. In relation, many tropical forest countries have low credit ratings (or in some cases are not rated at all) and present high risks, posing a major challenge for bond issuance. Potential solutions include the issuance of regional forest bonds that aggregate the credit ratings of several countries.[15]

3.6 Debt swaps

Debt swaps are agreements in which all or part of a debt owed – typically by a sovereign country, though potentially also by a sub-national jurisdiction – is cancelled by the holder in return for the investment of the money saved in public programs. In the context of AFOLU, money is typically invested in conservation programs, and transactions are known as 'debt-for-nature swaps'. Two main varieties exist. In the first, a sovereign debt holder – typically a developed country – cancels a given portion of the borrowing county's debt in return for that money being directly invested in agreed conservation efforts. In the second variety, an organization such as an NGO will purchase at a discount, and then cancel a portion of a 'non-performing'[16] debt in return for the allocation of an agreed amount of local currency to specified conservation programs.

Since debt swaps do not require any financial return, they are particularly suited to non-profit generating activities and are typically used for conservation programs such as establishing and maintaining protected areas. Governments or NGOs providing debt relief will require effective conservation programs and assurances that institutional capacities will be adequate for long-term implementation. They will also need to be confident of the effective and transparent management of funds, in some cases requiring the establishment of trust funds to manage financial resources.

Debt-for-nature swaps entail high transaction costs and require high-level negotiation, and so should only be considered for very large (typically > USD 10 million) transactions. A potential variation on these transactions (though no known cases yet exist) could involve debt being cancelled in return for emission reductions, whether simply for the achievement of reducing emissions (as in results-based grants) or for transferred emission reduction rights or carbon credits.[17]

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[13] Climate Bonds Initiative, *Bonds and Climate Change: The State of the Market in 2014*, 2014.
[14] Climate Bonds Initiative, *Agriculture & Forestry Industry Working Group launched. Big businesses and banks tasked with advising on practicality of the Climate Bonds AFOLU Standard developed by the Expert Technical Committee*, 2015. http://www.climatebonds.net/2015/03/agriculture-forestry-industry-working-group-launched-big-businesses-and-banks-tasked-0#sthash.guxu48MJ.dpuf.
[15] Cranford, M., C. Parker and M. Trivedi, *Understanding Forest Bonds*, Global Canopy Programme, 2011.
[16] A debt that is considered at significant risk of not being repaid.
[17] Cranford, M. and C. Parker, *Advanced REDD+ Finance*, Document Prepared for the REDD+ Partnership, Santa Marta, Colombia, 1 & 2 July 2012.

3.7 Subsidies and indirect finance

Indirect finance refers to a range of incentives that can be offered by governments to certain types of actors or those engaging in certain types of activities. A range of such mechanisms exist, including:[18]

i. *Tax concessions.* These may come in a variety of forms, such as reduced rates of income or corporate tax, exemptions on sales or import/export duties or provision of tax credits.
ii. *Direct subsidies.* These comprise direct transfers of funds to recipients, for example based on units produced or areas conserved.
iii. *Discounted provision of goods/services.* This involves provision of or access to publicly-owned goods (e.g. natural resources) or government services (e.g. infrastructure provision) at discounted rates.

Such forms of indirect finance can be used by governments to incentivize desirable behavior and business endeavors and to mobilize private capital toward those ends. By directly reducing the costs of such activities, they make them more feasible and thus increase their likelihood of attracting investment. They are therefore best directed at activities that generate returns but are not likely to generate profits without the availability of the incentive. They are costly to governments, however, and so should ideally be designed in such a way as to be less needed over time, for example by fostering the development of nascent business endeavors that have the potential to be financially sustainable in the long run.

3.8 Risk mitigation instruments

Risk mitigation instruments are mechanisms for reducing the risk associated with the provision of finance, thus making investment more attractive and allowing greater amounts of finance to be mobilized. They represent an important tool for public entities aiming to leverage private finance for investments with risk profiles that would otherwise deter investors. The following paragraphs describe some of the main risk mitigation instruments in common use.

Public-private funds aggregate capital among groups of investors and make investments in projects or business ventures within the scope of the fund. Such funds could be established to invest in projects and ventures that advance the objectives of AFOLU LEDS. Investments could be made through loans or potentially through equity investments to small or medium businesses. The added value of establishing such a fund is through sharing risks among investors, while different categories of shares may also be created for investors with different risk-return expectations. Public investors can also agree to take on greater risk (e.g. assumption of first-losses) in order to further encourage private investment. [19]

Insurance and risk guarantees help to mitigate risks associated with factors outside of an investor or borrower's control, such as political risks or risks associated with new and untested technologies. By agreeing to cover all or part of potential losses public entities can make investment more viable in regions or with technologies that would otherwise have difficulty

[18] The following partly draws on IEA, OPEC, OECD and World Bank, *Analysis of the Scope of Energy Subsidies and Suggestions for the G-20 Initiative*, Joint report prepared for submission to the G-20 Summit Meeting Toronto (Canada), 26-27 June 2010.
[19] UNEP, *Innovative Climate Finance: Examples from the UNEP Bilateral Finance Institutions Climate Change Working Group*, 2011.

attracting capital.[20] Guarantees can be provided with respect to a range of investment types, including equity and debt finance. Providers typically charge fees to the recipient of the guarantee (e.g. the borrower), and in the event that the provider is required to make loan repayments on the recipient's behalf the recipient will be required to reimburse the provider in full for all such repayments made.

Interest rates and currency facilities can help to reduce the risk associated with large fluctuations in interest rates or currency values, a substantial concern in many developing countries. These services are often provided by private entities at relatively high cost, often making them inaccessible to smaller investors. Public entities can, however, cooperate with financial institutions to provide services at a lower rate.

[20] Green Growth Action Alliance, *The Green Investment Report: The ways and means to unlock private finance for green growth*, World Economic Forum, Geneva, Switzerland, 2013.

4 Principal sources of AFOLU finance

The section seeks to provide guidance in answering the question 'who will be interested in investing in my LEDS?' It discusses three overarching categories of finance: international public finance (section 4.1), private finance (section 4.2) and domestic public finance (section 4.3), including outlining the characteristics and interests of each.

4.1 International public finance

This section discusses the role of international public finance in supporting LEDS in the AFOLU sector and the kinds of investments for which it is generally applicable. Since the scope of international public finance is broad and multi-faceted, sources of finance provided for AFOLU LEDS are grouped according to area of support as follows:

(i) Technical support and institutional and capacity building;
(ii) Non-results-based support to AFOLU mitigation;
(iii) Finance for adaptation measures;
(iv) Non-market results-based finance;
(v) Carbon payments; and
(vi) Public return-motivated finance.

4.1.1 Overview of international public finance

International public finance plays a key role in funding enabling investments to improve the competitiveness of sustainability strategies. These include investments that do not offer direct financial returns, such as investments in policy and governance reforms and capacity building, and early stage investments where, for example, research and piloting are needed to prove business viability. Much international public finance is provided in the form of grants and concessional loans. However, several international public providers such as Development Finance Institutions (DFIs) are profit-oriented and make equity and debt investments in climate-related activities that generate returns. Some also invest in revenue-generating activities through public-private partnerships, particularly in areas that coincide with their interests. Others offer risk mitigation to attract additional private investments. In addition to these roles, international donors are also a major source of technical assistance.[21]

In December 2014, a study commissioned by the UNFCCC estimated that total climate finance flowing from developed to developing countries during 2010-2012 ranged from $40 to $175 billion per year, of which $35 to $50 billion were from public institutions and the rest from private sources.[22] However, uncertainty about the scale of the private flows later suggested that the actual flow may have been closer to the lower bound of the $40 - $175 billion range.[23]

International public finance for AFOLU low-emissions activities in USAID LEAF countries supports a variety of projects and programs, including forestry (e.g., REDD+ initiatives, sustainable forest management, afforestation and reforestation, establishment and conservation of protected areas), multi-sectoral policy (e.g., low carbon development strategies,

[21] UNEP, *Innovative Climate Finance: Examples from the UNEP Bilateral Finance Institutions Climate Change Working Group*, 2011.
[22] UNFCCC, *Summary and Recommendations by the Standing Committee on Finance on the 2014 Biennial Assessment and Overview of Climate Finance Flows*, 2014.
[23] UNFCCC*, Note of Clarification on the 2014 Biennial Assessment and Overview of Climate Finance Flows*, 2015.

UNFCCC national communications, NAPAs), and sustainable agriculture (e.g., sustainable palm oil production, biomass production, and climate-smart agriculture).

To receive international public finance, countries generally need to comply with the eligibility criteria of relevant multilateral and bilateral institutions. Eligibility criteria often include factors such as the capacity to prepare, and implement desired programs; the potential to scale-up and replicate such programs; and a good track record of program implementation and financial management. Demonstration of country ownership is also often essential, meaning governments must show that funded activities are integrated into national policies and based on stakeholder consultations and in-country institutional coordination. Alignment of national priorities, policies and objectives with those of donors is also important. As such, developing a national climate strategy that considers and reflects the priorities of the most important international public finance institutions will better position a recipient country for funding. Other key factors include good relations with the financiers, relative need of the country, importance of the target sector to the national economy, and demonstration of co-benefits such as poverty alleviation, economic and social development, or added environmental benefits. Specific eligibility criteria for the main international finance sources are identified in Annex 1.

Where countries want to manage international finance directly, they often need to establish subnational or national implementing entities and financial management and procurement systems. With a strong reliance on domestic institutional capacity also comes a high reporting burden for recipient country entities. Therefore, robust measurement, reporting and verification (MRV) systems and safeguards to facilitate efficient and accurate accounting of program results are also required. Although countries will incur costs for establishing these systems, they will be able to access a larger proportion of the funding by avoiding the management fees charged by financial intermediaries as well as build long-term institutional capacity.

While several funds and programs have already allocated their funding, a significant number have substantial amounts of finance still available for allocation to new programs and projects, as shown in Figures 3 and 4 below.[24] Detailed information on the amount of finance still available from each fund is presented in Annex 1.

However, many multilateral funds and investment programs have been slow to disburse finance at the project level. For example, although donors have deposited approximately 72% of the USD 3.1 billion pledged to multilateral institutions for REDD+, just 11% has been disbursed to countries or projects.[25] The reasons for low disbursement rates are attributable to issues on the sides of both donors and recipients, and include the inefficiency and weak coordination of multilateral REDD+ institutions such as UNREDD and FCPF[26], as well as the lack of clarity of institutional responsibilities in recipient countries (e.g., between environment and forestry ministries) and failure to conform to safeguard criteria. Other inhibiting factors include recipient countries' lack of transparency; lack of monitoring frameworks; unclear benefit sharing mechanisms; lack of capacity to implement REDD+ activities on the ground; inadequate engagement of key actors including local groups and the private sector in stakeholder consultation; and unresolved land tenure issues. Addressing these areas will help countries speed up the disbursement process. Where long-term efforts are required, such as where land tenure reforms are necessary, countries should consider strategies to implement REDD+ through interim or 'stop-gap' solutions.

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[24] Based on data from Climate Funds Update, http://www.climatefundsupdate.org/listing.
[25] Norman, M. and S. Nakhooda, *The State of REDD+ Finance*, Working Paper 378, Center for Global Development, 2014.
[26] NORAD, *Real-Time Evaluation of Norway's International Climate and Forest Initiative. Synthesising Report 2007-2013*, 2014.

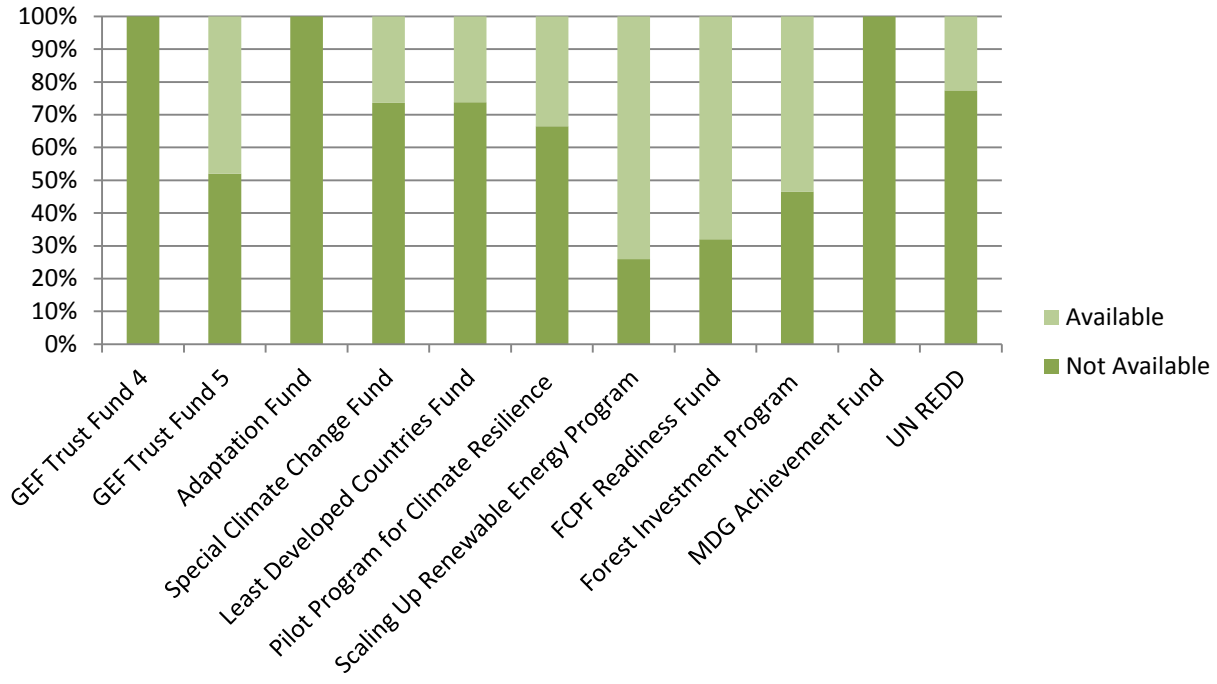
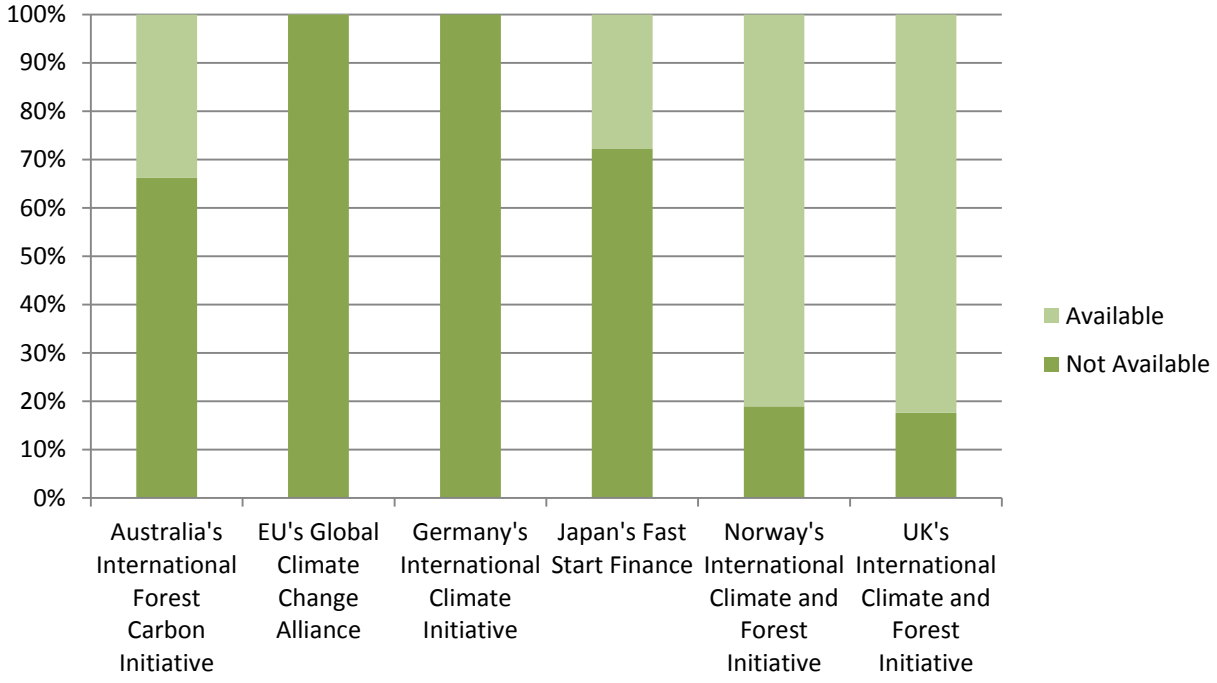


Figure 3: Percentage of total multilateral funds pledged available for new projects and programs



Note: While the Germany's International Climate Initiative (IKI)'s last call for funding has been fully allocated, the next annual call for funding will be available in the fall of 2015. At least 120 million Euros (or 130 million USD) are available from IKI annually.

Figure 4: Percentage of total bilateral funds pledged available for new projects and programs[27]

The different types of support for AFOLU LEDs from international public finance are outlined in the following sections. The discussion does not attempt to provide a comprehensive list of funds, but rather gives examples of the key sources in each category. Several sources such as the Green Climate Fund (see textbox) and the Global Environmental Facility provide multiple types of support. Brief descriptions of the key sources are given together with more detailed information on funding availability and eligibility criteria in Annex 1.

The Green Climate Fund (GCF)

The GCF supports the global shift towards low-emission and climate-resilient development by providing support to developing countries to reduce greenhouse gas emissions and adapt to climate change impacts. The GCF is an operating entity of the Financial Mechanism of the UNFCCC, and therefore will operate according to the objectives and principles of the UNFCCC. Its aim is to provide simplified access to funding for climate change mitigation and adaptation activities using a country-driven approach. The GCF is intended to channel a significant amount of multilateral finance, and had received pledges of just over USD 10 billion as of December 2014.

All developing country parties to the UNFCCC are eligible to receive finance from the GCF. To access the GCF, a country needs to set up the following:

(i) National Designated Authority and focal point to interact with the GCF and
(ii) Accredited Implementing Entities (IEs) and Intermediaries, which are subnational, national, and regional entities that will provide direct access to the Fund's resources.

In the initial stages of GCF's operations, all proposals must be submitted through accredited IEs or intermediaries. Alternatively, countries can access GCF finance through accredited international entities such as United Nations agencies, multilateral development banks, international financial institutions and regional institutions.

The GCF will make investment decisions based on six investment criteria:

(i) Impact (contribution to the GCF results areas);
(ii) Paradigm shift potential;
(iii) Sustainable development potential;
(iv) Needs of the recipient countries and populations;
(v) Coherence with a country's existing policies or climate strategies; and
(vi) The effectiveness and efficiency of the proposed intervention.

4.1.2 Areas of support to AFOLU LEDS

(i) *Technical support, institutional strengthening and capacity building*

Technical support, institutional strengthening and capacity building activities aim to create favorable conditions for additional investments in AFOLU LEDS, or otherwise invest in public

[27] Based on data from Climate Funds Update, http://www.climatefundsupdate.org/listing.

structures. As such, there is no expectation of returns and support is often provided in the form of grants and technical assistance.

An important source of funding in this area is REDD+ readiness finance, which aims to prepare countries for accessing payments based on demonstrated emissions reductions or removals from REDD+ actions. REDD+ readiness finance supports activities such as developing national REDD+ strategies; building institutional and technical capacity; developing Reference Emissions Levels; designing Monitoring, Reporting, and Verification (MRV) systems; establishing benefit sharing mechanisms; developing environmental and social safeguards systems; and clarifying land and forest tenures.

Currently, UN-REDD, Forest Carbon Partnership Facility - Readiness Fund (FCPF-RF) and the Forest Investment Program (FIP) are the major multilateral providers of REDD+ readiness finance. Bilateral institutions such as the Norway's International Climate and Forest Initiative, Japan's Fast Start Finance and Australia's International Forest Carbon Initiative have also contributed significantly to REDD+ readiness activities through contributions to the multilateral funds and direct disbursement to countries. REDD+ readiness finance is allocated based on factors such as a country's forest area and carbon stock, importance of forests to the national economy, high current or projected deforestation or degradation rates, and ability to demonstrate progress and results in the short-term based on REDD+ early action.[28]

In addition to funds that provide REDD+ readiness finance, other sources such as non-results-based support to AFOLU mitigation and finance for adaptation measures also include capacity building and governance strengthening components.

Table 3: Key international public funds for technical support and institutional and capacity building

Fund	Description
UN-REDD	The UN-REDD Programme supports national REDD+ readiness activities in 60 partner countries focusing on preparation and implementation of national REDD+ strategies and mechanisms.[29]
Forest Carbon Partnership Facility - Readiness Fund (FCPF-RF)	The FCPF is a World Bank programme and consists of a Readiness Fund and a Carbon Fund. The Readiness Fund provides support for countries to complete the FCPF-defined REDD+ readiness process. FCPF is active in 44 developing countries.[30]
Norway's International Climate and Forest Initiative (NICFI)	The NICFI contributes to several multilateral initiatives including the FCPF and FIP, and directly to several national REDD+ programs including Brazil, Indonesia, Democratic Republic of Congo, Guyana and Tanzania. It supports all phases of REDD+ (readiness, pilot implementation and results-based payments).
Australia's International Forest Carbon Initiative	Australia's International Forest Carbon Initiative supports REDD+ readiness and implementation activities in selected developing countries focusing on Indonesia and Papua New Guinea.

[28] Climate Funds Update, *UN-REDD Programme and FCPF Descriptions*, http://www.climatefundsupdate.org/listing.
[29] UNREDD Programme, *About UNREDD Programme*, http://www.un-redd.org/aboutun-reddprogramme/tabid/102613/default.aspx.
[30] FCPF, *REDD+ Countries*, https://forestcarbonpartnership.org/redd-countries.

(ii) *Non-results-based support to AFOLU mitigation*

This finance category covers AFOLU mitigation where emissions reductions are not easily measurable or are measured without sufficient accuracy to enable results-based payments (i.e., *ex post* payments based on emissions reductions and removals against an agreed baseline). It includes financing for a range of initiatives such as low emissions land use planning, forest conservation and restoration, sustainable supply chain development, alternative business models and climate smart agriculture. Since these activities often comprise pilot projects or non-profit making activities (e.g. conservation), they generally generate little or no return and are therefore usually financed by grants and concessionary loans delivered prior to or during implementation.

Examples of international public financiers for AFOLU mitigation initiatives are provided in Table 4. Readiness programs like UN-REDD, FCPF and FIP also invest in activities that directly result in emissions reductions. Funding proposals are typically assessed according to their potential impact, replicability and scalability, along with a host of other factors as mentioned in the overview discussion.

Some funds such as IKI, GEF, FIP and the UK International Climate Fund have an expressed interest in promoting private sector engagement and leveraging their investment. IKI supports projects that remove major barriers to private sector engagement, such as through risk mitigation measures or public-private partnerships to improve business model viability.[31] FIP provides funding on a competitive basis to programs and projects that engage the private sector in its eight pilot countries.[32] The GEF Trust Fund 5 has allocated US$110 million for non-grant pilot funding, available to both public and private sector recipients, to demonstrate and validate the application of non-grant financial instruments (including debt, equity, and risk mitigation measures) to addressing global environmental degradation, including in the AFOLU sector.[33] The UK ICF also invests in strategic initiatives to catalyze private investment such as the Climate Public Private Partnership[34] and the Capital Markets Climate Initiative.[35] Projects and programs that can demonstrate the potential to catalyze private sector investment will therefore receive priority from these funding streams.

[31] German International Climate Initiative, *Mitigating Greenhouse Gas Emissions*, http://www.international-climate-initiative.com/en/issues/mitigation.
[32] Forest Investment Program, *FIP Private Sector Set-Aside*, https://www.climateinvestmentfunds.org/cif/set-aside/fip.
[33] Global Environmental Facility, *GEF's Non-Grant Financing*, https://www.thegef.org/gef/NGI.
[34] UK International Climate Fund, *Climate Public Private Partnership*, https://www.gov.uk/government/case-studies/climate-public-private-partnership-cp3.
[35] UK International Climate Fund, *Capital Markets Climate Initiative*, https://www.gov.uk/capital-markets-climate-initiative.

Table 4: Key international public funds for non-results based support to AFOLU mitigation

Fund	Description
Global Environmental Facility (GEF)	The GEF provides funding to cover incremental costs associated with transforming a project with national benefits into one with global environmental benefits. Of the six work areas, four are particularly relevant to AFOLU LEDS: climate change, sustainable management of forest and REDD+, biodiversity and land degradation.[36]
UK International Climate Fund	The UK International Climate Fund supports developing countries to adapt to climate change, embark on low carbon growth and reduce deforestation. Examples of funded AFOLU mitigation initiatives include low carbon agriculture, forest restoration and efforts to address illegal logging.
Japan's Fast Start Finance	Japans' Fast Start Finance provides assistance to developing countries to reduce greenhouse gas emissions and adapt to the adverse impacts of climate change. It supports forest preservation programmes in over 20 countries.
Forest Investment Program (FIP)	The FIP is a targeted program of the Strategic Climate Fund within the Climate Investment Funds. It is active in eight pilot countries and while it supports REDD+ readiness activities, the primary focus is on REDD+ pilot implementation (Phase 2) activities, including activities that directly result in emissions reductions.[37]

(iii) *Finance for adaptation measures*

AFOLU mitigation initiatives that have significant adaptation benefits such as mangrove restoration, reforestation of hillsides and soil conservation can apply for funding from adaptation funds. Examples of major multilateral adaptation funds include the Special Climate Change Fund, Adaptation Fund, Least Developed Country Fund and the Pilot Program for Climate Resilience. These funds prioritize countries vulnerable to climate change impacts, such as small island developing states, countries with low-lying coastal areas or areas liable to flooding, drought and desertification and low income countries.

In addition to these funds, many institutions also provide funding for development and implementation of adaptation strategies (e.g. the GEF, GCF, IKI, GCCA, USAID, JICA, and DFID). Since adaptation measures typically do not offer financial returns, adaptation finance is usually through grants and concessional loans and there has been less private sector investment in adaptation compared to in mitigation. However, adaptation funds are increasingly investigating how to leverage private investments, such as through increasing agricultural supply chain resilience and reducing climate-related risks to infrastructure.[38] For example, the UK International Climate Fund is supporting the private sector to develop and introduce new

[36] Global Environmental Facility, *GEF's Areas of Work*, http://www.thegef.org/gef/Areas_work.
[37] Forest Investment Program, *Program Description*, https://www.climateinvestmentfunds.org/cif/node/5.
[38] Global Environmental Facility, *Private Sector Engagement in Climate Change Adaptation*, prepared by the GEF Secretariat in collaboration with the International Finance Corporation, 2012.

products and services to help smallholders in Africa adapt to climate change, including technologies for improved soil tillage and conservation agriculture, and products that reduce the costs of accessing carbon markets for tree planting.[39] The International Finance Corporation (IFC) has analyzed climate risks for several of its investments, including an agribusiness in Ghana and a pulp and paper company in Pakistan, to motivate project developers to adopt adaptation measures.[40]

Table 5: Key international public funds for adaptation[41]

Fund	Description
Least Developed Country Fund (LDCF)	The LDCF finances the preparation and implementation of National Adaptation Programs of Action (NAPAs) in 48 least developed countries. The LDCF is managed by the Global Environmental Facility.[42]
Special Climate Change Fund (SCCF)	The SCCF supports adaptation and technology transfer in all developing countries party to the UNFCCC. The SCCF only provides funding for the incremental costs of interventions to address climate change relative to a development baseline. The SCCF is managed by the Global Environmental Facility.[43]
Adaptation Fund	The Adaptation Fund finances adaptation projects and programmes in developing countries that are party to the Kyoto Protocol and are particularly vulnerable to the adverse effects of climate change. It is supervised and managed by the Adaptation Fund Board.[44]
Pilot Program for Climate Resilience (PPCR)	The PPCR is a targeted program of the Strategic Climate Fund (SCF) within the Climate Investment Funds (CIF) framework. It aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation. The PPCR is administered by the World Bank.

(iv) *Non-market results-based finance*

Results-based finance is expected to provide significant support for efforts to reduce emissions in the AFOLU sector, particularly for REDD+ activities. Non-market results-based finance refers to payments for reductions in emissions that do not result in the transfer of emission rights. Norway is currently the leading provider of non-market results-based finance through its agreements with Guyana, Brazil, and Indonesia. Other sources include the NAMA Facility, Green Climate Fund and Germany's REDD+ Early Movers (REM) Program. For example, one project approved by the NAMA Facility supports Burkina Faso to address biomass use as one of the main drivers of deforestation at the national level. As a results-based project milestones need to be reached to trigger the next funding round.[45] The Green Climate Fund has approved

[39] UK International Climate Fund, *2013 Case Studies: Mobilizing the Private Sector to Benefit the Poor*, 2013.
[40] Global Environmental Facility, *Private Sector Engagement in Climate Change Adaptation*, prepared by the GEF Secretariat in collaboration with the International Finance Corporation, 2012.
[41] All the funds listed support adaptation in the agricultural and forestry sector, including those that have mitigation benefits.
[42] Global Environmental Facility, *Least Developed Countries Fund*, http://www.thegef.org/gef/LDCF.
[43] Global Environmental Facility, *Special Climate Change Fund*, http://www.thegef.org/gef/SCCF.
[44] Adaptation Fund, *About the Adaptation Fund*, https://www.adaptation-fund.org/about.
[45] NAMA Facility, *Burkina Faso NAMA*, http://www.nama-facility.org/projects/burkina-faso.html.

a separate performance measurement framework for REDD+ results-based payments.[46] Under the REM Program, the host country is required to cancel all emissions reductions that have been paid for and may not seek additional financial compensation for these. However, there is no transfer of title and the host country is entitled to claim these as voluntary efforts to reduce its own emissions.

To access results-based finance, countries need to demonstrate emissions reductions or removals from REDD+ activities against an agreed baseline and comply with relevant safeguards. They also need sufficient financial management and procurement capacity and robust MRV systems. Results-based finance for REDD+ is therefore typically directed toward countries with better governance and financial management systems.

Table 6: Key international public funds for non-market results-based finance

Fund	Description
Norway-Guyana	In 2009, Norway signed an agreement to provide Guyana with up to $250 million in performance-based payments until 2015 to reduce deforestation and forest degradation and support implementation of Guyana's Low Carbon Development Strategies. The payment is based on an independent verification of Guyana's deforestation and degradation rates and progress on REDD+ enabling activities.[47]
Norway-Brazil	In 2008, Norway signed an agreement to provide Brazil with up to $1 billion during a 5-year period for reducing emissions from deforestation below a 10-year average (1996-2005). These funds are to be donated to the Amazon Fund and managed by the Brazilian National Development Bank (BNDES).[48]
Norway-Indonesia	In 2010, Norway signed a Letter of Intent with Indonesia pledging up to $1 billion to help Indonesia reduce emissions from deforestation, forest degradation and peat land conversion. Structured in three phases, the Agreement anticipated piloting of performance-based payments for verified emission reductions at the provincial scale by 2012, and at the national level by 2014.[49] However, as of early 2015 no results-based payments had been made.
Germany's REDD+ Early Movers (REM) Program	The REM program targets jurisdictions which have made substantial commitments to climate change mitigation. Results-based payments are made wherever possible, based on field verification of conservative proxy indicators and baselines. Upfront finance is also provided to promote forest conservation in countries where the establishment of a results-based payment scheme is intended in the near future.[50]

[46] Green Climate Fund, *Initial Logic Model and Performance Measurement Framework for REDD+ Results-based Payments*, 2014.
[47] Guyana REDD+ Investment Fund (GRIF), *About the GRIF*, http://www.guyanareddfund.org/index.php?option=com_content&view=article&id=101&Itemid=116.
[48] Birdsall, N., W. Savedoff and F. Seymour, *The Brazil-Norway Agreement with Performance-Based Payments for Forest Conservation: Successes, Challenges, and Lessons*, Center for Global Development, 2014.
[49] Seymour, F., N. Birdsall and W. Savedoff, *The Indonesia-Norway REDD+ Agreement: A Glass Half-Full*, Center for Global Development, 2015.
[50] BMZ, GIZ and KfW, *REDD Early Mover (REM) – Rewarding Pioneers in Forest Conservation*, 2014. http://www.bmz.de/en/publications/topics/climate/FlyerREDD_lang.pdf.

Fund	Description
NAMA Funding	NAMA funding comes from the NAMA Facility and a variety of other sources, mostly bilateral. The NAMA Facility is jointly established by Germany and UK, with contributions from Germany's IKI and UK's ICF. The Facility finances the implementation of ambitious country-led NAMAs. It provides results-based finance as well as non-results-based support to AFOLU mitigation.

(v) *Carbon payments*

Carbon payments are payments for emissions reductions where there is a transfer of title of emissions reductions from the host country. These emissions reductions may be cancelled and considered as contribution to global public goods, or they may be retired as part of the buyer's national emissions reduction targets. However, in the absence of international agreement around future mitigation commitments and the use of market-based approaches for REDD+, it is not yet clear how these emissions reduction credits will be used by buyers.

Examples of carbon payments include Japan's Bilateral Offset Crediting Mechanism, the World Bank Forest Carbon Partnership Facility's Carbon Fund, and possibly the World Bank BioCarbon Fund Initiative for Sustainable Forest Landscapes. Among these, the BioCarbon Fund has a special focus on engaging the private sector to scale up successful sustainable land use practices and supply chains. It creates incentives for private sector engagement through instruments such as guarantees for anticipated short-term losses and commitments to purchase sustainably sourced products.[51] Similar to non-market results-based finance, carbon payments require countries to demonstrate emissions reductions measured against an agreed baseline, compliance with relevant safeguards and establishment of financial management and MRV systems.

Table 7: Key international public funds for carbon payments

Fund	Description
Forest Carbon Partnership Facility – Carbon Fund (FCPF-CF)	The FCPF-CF provides payments for verified emission reductions from REDD+ programs in countries that have made considerable progress towards REDD+ readiness. The host country will need to transfer their emissions rights through an Emission Reductions Purchase Agreement with the World Bank.[52]
World Bank BioCarbon Initiative for Sustainable Forest Landscapes (ISFL)	The BioCarbon Fund takes an integrated landscape approach in reducing emissions from the AFOLU sector and focuses on the interface between agriculture and forestry. It provides results-based payments (including some upfront milestone payments) for achieved emission reductions.[53] The precise arrangements with regard to transfer of title to emission reductions under the ISFL have yet to be defined.

[51] BioCarbon Fund – Initiative for Sustainable Forest Landscapes, *About Us – Private Sector Engagement*, http://www.biocarbonfund-isfl.org/private-sector-engagement.
[52] Forest Carbon Partnership Facility, *The Carbon Fund*, https://www.forestcarbonpartnership.org/carbon-fund-0.
[53] BioCarbon Fund – Initiative for Sustainable Forest Landscapes, *About Us*, http://www.biocarbonfund-isfl.org/about-us.

(vi) *Public return-motivated finance*

This category refers to funding provided by Development Finance Institutions (DFIs)[54] to public and private entities for climate-related investments that generate returns. Finance is channeled through a range of instruments including loans, equity (either direct investments or through pooled funds), risk guarantees and insurance. These investments are commercial in nature and often follow current market interest rates and fee schedules. However, guarantees are usually offered to cover increased risks associated with the investments. In some cases, DFIs accept a below-market return in exchange for social and environmental benefits. Examples of DFIs' investment in AFOLU LEDS include Netherlands Development Finance Company (FMO) and European Investment Bank (EIB)'s investment in Althelia Climate Fund (see textbox below)[55] and the Overseas Private Investment Corporation (OPIC)'s investment in the Terra Bella Fund, a private equity fund providing early stage capital to AFOLU projects that combine emissions reduction and sustainable agricultural production.[56]

In addition to providing finance to the private sector, some DFIs such as global and regional development banks offer non-grant support to public actors for implementation of mitigation projects that generate returns. For instance, the World Bank provided a loan to the Forestry Department of Guangxi Zhuang Autonomous Region (GZAR) and Guangxi Longlin Forestry Development Company Ltd. to reforest degraded lands in Northwest Guangxi, China. The project is a public-private partnership that generates income for local farmers through carbon revenues, wood products, resin and other forest products.[57] As shown in these examples, projects and programs need to have underlying asset investments that generate financial returns in order to access public return-motivated finance.

Table 8: Examples of international public return-motivated finance

Fund	Description
European Investment Bank (EIB)	EIB has committed to invest at least 25% of its lending portfolio in climate mitigation and adaptation activities in Europe and around the world. It offers both concessional and non-concessional finance and has sustainable forestry and agriculture as one of the focal areas in its climate investments.[58]
International Finance Corporation (IFC)	IFC, the World Bank's private sector arm, supports business solutions to climate change. It provided $2.5 billion in lending to climate mitigation and adaptation activities in FY 2014. IFC investments target a range of returns from below market to market rate.[59]

[54] The large global DFIs include IFC, MIGA, IRBD, OPIC, EBRD, EIB and PARBACO. The large regional DFIs include ADB, AfDB, BNDES and IDB. Other key DFIs include GEPF and EDFI. EDFI is a group of 15 bilateral investment organizations.

[55] FMO, *Althelia Ecosphere Completes First Closing for Althelia Climate Fund with Over EUR 60 Million Raised*, 12 June 2013. http://www.fmo.nl/k/news/view/10674/179/althelia-ecosphere-completes-first-closing-for-althelia-climate-fund-with-over-eur-60-million-raised.html.

[56] Terra Global Capital, *Terra Bella Fund*, http://www.terraglobalcapital.com/terra-bella-fund.

[57] Climate Finance Options, *Reforestation on Degraded Lands in Northwest Guangxi (China)*, 2014. http://climatefinanceoptions.org/cfo/node/190. This is an example of a project that blends different types of financing from various sources (loans from World Bank and local commercial banks, equity from the private sector and local government, and carbon finance from the World Bank BioCarbon Fund).

[58] European Investment Bank, *Climate Action: Financing Low-carbon Growth and Climate Resilience*, 2014. http://www.eib.org/projects/priorities/climate-action/index.htm.

[59] World Bank, *Climate Finance*, http://www.worldbank.org/en/topic/climatefinance.

Fund	Description
KfW Development Bank	KfW Development & Climate Finance provides concessional and non-concessional loans (and grants) to climate mitigation and adaptation activities. In 2014 KfW contributed EUR 17 million seed capital to a biodiversity fund in Latin America that will invest in profit-generating activities that contribute to biodiversity conservation and climate change mitigation.[60]

4.2 Private finance

4.2.1 Carbon market finance

The AFOLU sector has not been a major focus in UNFCCC compliant carbon markets. The Clean Development Mechanism (CDM) does not include emissions from deforestation or degradation, and projects in afforestation and reforestation (A/R) only qualify for low value temporary credits. Agriculture projects outside the 'land-use' sphere[61] have also been considered less attractive due to emissions accounting complexities. As such, between 2009 and 2013 CDM agriculture and A/R projects provided only USD 30 million in USAID LEAF countries, mostly from the use of agricultural waste for power generation.[62] The largest share of investment was in Malaysia followed by India, which was home to all but one of the A/R projects in the region. As CDM credits are currently in oversupply, the CDM is not expected to be a significant source of finance for AFOLU in the near future.

Carbon credits from forestry projects, including reducing emissions from deforestation and degradation (REDD), are accepted by non-compliance, or voluntary, carbon markets although traded volumes remain limited. In 2012, the market for forest carbon in Southeast Asia was valued at USD 10.7 million.[63] Global demand for carbon credits is currently weak and while REDD credit sales volumes increased significantly in 2013, prices also fell[64] and are not expected to increase in the near-term.

In previous years discussions under the UNFCCC considered establishment of an international REDD+ mechanism that would include carbon trading. Recent decisions have, however, directed attention towards country-to-country and multilateral results-based payments rather than generation of tradable credits. Similarly, inclusion of REDD+ in a proposed "new market

[60] KfW, *Press Release: KfW: Green Light for the First Biodiversity Fund in Latin America*, 22 December 2014. https://www.kfw.de/KfW-Group/Newsroom/Aktuelles/Pressemitteilungen/Pressemitteilungen-Details_252736.html.

[61] I.e., those that are focused on reducing emissions from agricultural processes, rather than emissions directly associated with the use or change in use of land.

[62] Calculated by multiplication of number of CERs issued by the average spot price of primary CERs from Jan 2009 to Jan 2013.

[63] This is calculated according to number of forest offsets transacted in 2012 in Indonesia, Malaysia and Cambodia multiplied by average price in the Asia market. Information provided by Peters-Stanley, M., G. Gonzalez and D. Yin, *Covering New Ground State of the Forest Carbon Markets 2013*, Ecosystem Marketplace, 2013.

[64] Peters-Stanley, M. and G. Gonzales, *Sharing the Stage: State of the Voluntary Carbon Markets 2014*, Forest Trends' Ecosystem Marketplace, 2014.

mechanism" (NMM) under the UNFCCC gained support from a number of parties but as of December 2014 negotiations on the NMM remain stalled.

4.2.2 Foundations

Foundations are non-governmental organizations established for charitable purposes rather than profit. Many provide funding for forest conservation and related purposes and represent a source of finance for low emissions AFOLU initiatives.

Independent foundations, usually founded by individuals, families or groups, are the most common but corporate, community and public foundations also exist. Operating foundations, such as the Tropical Forest Foundation and the Rainforest Foundation, function to fund their own activities, while other foundations are established to pool resources for a specific program. For example, the Amazonas Sustainable Foundation is a statutory public-private partnership between the State of Amazonas and Bradesco Bank which aims to conserve forests and promote sustainable development in the state's forest areas.

US based foundations are the largest among those donating to international development and AFOLU. One prominent US funder of AFOLU LEDS is the Climate and Land Use Alliance (CLUA), a group of four major US environmental foundations that pool resources to catalyze action amongst donors, governments, the private sector and other actors in the forest and land use sector. Despite the success of foundations such as CLUA, financing for international development and AFOLU LEDS-related initiatives from US and other charitable foundations is very limited in comparison with that provided by international public sources.

4.2.3 Impact investors

Impact investments target companies, organizations, and funds and aim to generate social and environmental impacts alongside a financial return.[65] The global impact investment market in 2013 was estimated at USD 36 billion, up from USD 4.3 billion in 2011. This sum may reach USD 1 trillion by 2020.[66]

[65] Global Impact Investing Network, http://www.thegiin.org/cgi-bin/iowa/home/index.html.
[66] Martin, M., *Making Impact Investible*, Impact Economy Working Papers Vol. 4, 2013. http://www.impacteconomy.com/download/Impact%20Economy%20-%202013%20-%20Making%20Impact%20Investible.pdf

The Althelia Climate Fund

The Althelia Climate Fund is an impact investment fund that provides profit-participating loans to projects that generate both environmental service assets and sustainable commodities, preferably with revenue balanced between both. The most common environmental service assets invested in are REDD+ credits – for which both VCS and CCBA certification is required – though the Fund is also open to investing in other environmental service assets such as biodiversity offsets.

Projects seeking finance should have a solid business plan and present a clear and achievable pathway toward long-term sustainable land use. Projects must also be investment-ready by 2016 and provide returns to investors by 2020 or latest 2021, at which time the Fund will close. In addition, projects must meet Althelia's Environmental, Social and Governance Standards and the International Finance Corporation's Performance Standard.

Althelia has a total capital of EUR 105 million commitments, funded by both public and private sources. A little over half of this amount remains available for investment. Overall the Fund intends to allocate around 20% of total investments to projects in South-East Asia, the large majority of which has yet to be allocated. Average investments to-date have been EUR 5-10 million.

The AFOLU sector in developing countries currently represents a small fraction of impact investors' portfolios. Investors favor companies with limited technology risks, limited exposure to political risk and higher immediate returns. As such, energy and manufacturing sectors, and AFOLU in developed countries are given higher priority. Nonetheless, a number of impact investors have AFOLU investments in Southeast Asia. One of the most prominent is the Althelia Climate Fund (see box). Other examples include the Aloe Environment Fund (AEF), which has investments in bioenergy generation and sustainable agriculture,[67] and the Mekong Renewable Resources Fund (MRRF), which has investments in sustainable forestry in Viet Nam, Cambodia and Laos.[68] In addition, a new joint venture between the Asian Development Bank and two private partners will invest USD 400 million in "climate-friendly" investments, including in agriculture and forestry.[69]

Impact investing in AFOLU in developing countries is becoming increasingly viable, particularly where governments are willing to underwrite investment risk. USAID has recently provided a risk sharing loan guarantee that helps make Althelia's investments more viable.[70] Previous

[67] Aloe Private Equity, *Our Investment Portfolio*, www.aloe-group.com/en-gb/our-investment-portfolio.
[68] Indochina Capital, *Press Release: Indochina Capital launches the Mekong Renewable Resources Fund*, 30 June 2011. www.indochinacapital.com/wp-content/uploads/2014/05/ICC_MRRF_OPIC_EN-Press-Release_June2011.pdf.
[69] Hoang, L., Asian Development Bank Launched $400 Million Climate-Friendly Investment Fund, *Bloomberg BNA*, August 6 2014. www.aloe-group.com/Uploads/Documents/ADB Launched $400 Million Climate-Friendly Investment Fund.pdf.
[70] Gonzalez, G., US Feds See Althelia Risk Guarantee As Template For Similar Endeavors, *Ecosystem Marketplace*, 30 May 2014. http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=10374&section=news_articles&eod=1.

Althelia investments in Kenya and Peru have been guaranteed by USAID, limiting investors' loss exposure to fifty percent.[71]

Although the Global Impact Investing Network promotes a common framework for performance reporting, there is currently no universal standard for impact investing. Impact investors have therefore typically chosen existing international standards, such as in the case of Althelia (see above). Similarly, the Aloe Environment Fund adheres to the ten principles of the UN Global Compact initiative and the specific requirements of each investor will need to be checked individually by applicants.[72] Meanwhile, the MRRF applies the environmental and social policies of the Overseas Private Investment Corporation, its principal financier.

4.2.4 Private companies

Large-scale plantation establishment supported by private investment is a major cause of deforestation in Southeast Asia, with forest removed to produce commodities such as palm oil, rubber and coconut.[73] Major palm oil producers and traders (e.g. Wilmar International, Golden Agri-Resources and Cargill) and consumer goods companies (including Hershey's, Unilever and Mars) are, however, making efforts to reduce their impacts, e.g. by adopting zero deforestation policies.[74] The implementation of such policies has the potential to direct significant amounts of finance towards lowering emissions associated with deforestation.

Table 9 provides an overview of the main AFOLU LEDS-related areas of private investment in Southeast Asia. Seven types of activity are identified:

1. Land set-asides;
2. Reforestation/ecosystem restoration;
3. Sustainable agricultural practices;
4. Sustainable supply chains;
5. Investment in REDD+ and other conservation strategies; and
6. Education/research grants.

Since these initiatives generally form part of companies' internal investment, and related finances are not published, company support for AFOLU LEDS may be considered in kind contributions in areas where the company or its subsidiaries or suppliers are engaged. Companies may, however, have funding available to train or otherwise assist suppliers in implementing sustainable practices – particularly where suppliers are mostly smallholders.[75] They may also invest in monitoring and land-use planning to reduce supply chain emissions[76]

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[71] Bank, D., Beyond Carbon: Althelia Climate Fund Attracts Conservation Investors, *Huffington Post*, October 24 2014. http://www.huffingtonpost.com/david-bank/beyond-carbon-althelia-cl_b_6041646.html.

[72] Aloe Private Equity, *Our ESG Policies*, http://www.aloe-group.com/en-gb/ethics-and-policies/our-esg-policies.

[73] Union of Concerned Scientists, *The Root of the Problem, What's Driving Deforestation Today*, 2011.

[74] United Nations Climate Summit 2014, *New York Declaration on Forests Action Statements and Action Plans, Provisional Copy*, 23 September 2014.

[75] For example, Unilever and Cargill are both investing heavily in training farmers in Malaysia and Indonesia in sustainable agricultural practices, as part of their commitments to making their supply chains more sustainable. See Casey, M., Unilever, Cargill push to green their palm oil chain, *Fortune*, 17 December 2014. www.fortune.com/2014/12/17/palm-oil-deforestation-unilever-cargill.

[76] For example, Unilever is supporting Global Forest Watch, a platform to provide a global forest monitoring network, which can be used by, among others, companies to monitor the impacts of commodity supply chains on forests and demonstrate compliance with sustainability commitments. See www.globalforestwatch.org.

or pay a premium for certified commodities that they themselves purchase, including through long-term contracts.

Table 9: Private investments in Southeast Asia with similar objectives to AFOLU LEDS

Type	Description	Examples
Land set-asides	Setting aside specific areas within concessions e.g. high conservation value (HCV) forest, peat areas or wildlife conservation areas.	**1. Asia Pacific Resources International Limited (APRIL)** Of APRIL's total concession area, 26%, amounting to 88,610 ha has been set aside and conserved following HCV assessments. 2. **New Britain Palm Oil (NBPO)** NBPO had 6,024 ha of land set aside for conservation in 2013. **3. Wilmar** Wilmar's high carbon stock (HCS) program protects denser forest areas from development. Currently 25,860 ha are protected, plus 4,865 ha of riparian zones.
Reforestation / ecosystem restoration	Planting of trees or restoration of entire ecosystems on degraded land over which the company exercises control.	**1. Astra International** Between 2010 and 2013, Astra planted 2.4 million trees, equivalent to 3,430 ha. **2. Nestle** In 2011, Nestlé (Malaysia) embarked on a project to reforest 2,400 ha of land along the lower Kinabatangan River in Sabah. Project RiLeaf will establish a natural buffer to prevent pollutants, mainly soil sediments and chemical fertilizer run-off, from entering the river. Almost 180,000 trees have been planted. **3. Danone** In collaboration with the Nature Environment and Wildlife Society (NEWS) and local communities in the Sundaban region of India, the project has enabled 16 million mangrove trees to be replanted on 5,500 ha. The area protects villages from cyclones and other threats.
Adoption of sustainable agriculture practices	Promoting agricultural practices that promote efficient use of external inputs such as water and chemical fertilizers.	**1. PepsiCO** In 2010, PepsiCo applied direct seeding of rice to approximately 4,046 ha in India. Because the crop is not inundated, water use is cut drastically and there is also a 70 percent reduction in greenhouse gas emissions. **2. Wrigley** In India, one of Wrigley's key mint growing regions, Wrigley is developing a sustainable agriculture plan. This assesses economic, environmental and social impacts, and sets strategies against these impacts.
Sustainable supply chains	Ensuring that materials are sourced from sustainably certified producers or by 'offsetting' the unsustainable component of existing supply (e.g., through purchase of GreenPalm certificates).	**1. Unilever (tea)** Unilever has committed to sourcing all tea sustainably by 2015. By 2012, 25 of the 48 plantations in Indonesia which supply tea to Unilever had been certified by Rainforest Alliance which requires conservation of natural ecosystems and reforestation of areas unsuitable for agriculture, etc. **2. Unilever (palm oil)** By purchasing GreenPalm certificates at a cost of USD 3.5 million, Unilever has been able to claim that by 2012, 100% of their palm oil was sustainably produced. Unilever has stated that all palm oil it purchases will be traceable to certified sustainable sources by 2020.
Investment in REDD+/ conservation strategies	Purchasing of REDD+ credits on the voluntary carbon market, or donating to protected area schemes.	**1. Microsoft** Microsoft has committed to carbon neutrality and invested in a portfolio of voluntary REDD+ projects in order to help it achieve this goal. 2. **McDonalds** McDonald's Endangered Animals Happy Meal will provide funds to Conservation International's Harapan Forest protected area in Sumatra, Indonesia, and the Central Cardamoms Protection Forest program in Cambodia

Type	Description	Examples
Education/ research grants	Investing in institutions that promote sustainable practices, or develop sustainable production techniques.	**1. Cargill** Cargill have built Indonesia's first oil palm teaching farm. The farm is the first such collaboration between a commercial oil palm grower and an educational institute and will enable both research and training in sustainable plantation management. **2. Kelloggs** Kelloggs provides funds to the International Rice Research Institute, which runs rice sustainability programs in Viet Nam and Thailand that include research into developing cropping systems that are better adapted to climate change and result in lower reduce emissions.

Understanding companies' incentives for adopting lower emissions business practices can help LEDS proponents to bring about change. Incentives can be classified into five general categories:

1. First, national laws and policies can compel companies to comply with certain practices (e.g. requiring set-asides for plantations), or encourage certain practices through the use of subsidies or preferential licensing;
2. Second, companies may voluntarily adopt benevolent practices for public relations purposes, also known as corporate social responsibility (CSR). This serves two functions: one is to persuade consumers that products they sell do not cause undue environmental damage; the other is to persuade policy makers (and the general public) that the company behaves responsibly and does not need controlling through legislation – which may cost the company more in the long run. Company commitments to voluntary sustainability initiatives, such as the Roundtable on Sustainable Palm Oil (RSPO), constitute an important part of CSR efforts;
3. Third, companies may wish to differentiate a product on the market by stressing its 'ethical' or environmentally sound production methods, typically offsetting increased production costs by charging a premium to consumers who are willing and able to pay more;
4. Fourth, shareholders may pressure companies to improve sustainability, though evidence is emerging that this may not be a critical driver for action;[77]
5. Fifth, companies may shift to more sustainable practices to secure future profit, by investing in production methods that are more effective or supply chains that are more secure in the long term (so called 'enlightened self-interest'[78]).

Governments may also help channel private investment towards AFOLU LEDS by designing policies that build on some of the above incentives. For example, governments can reward early movers imposing across-the-board standards that prevent less progressive companies from gaining an advantage by ducking costs associated with sustainable production. Governments may also form public-private partnerships (see boxes below) to support adoption of voluntary standards or work with companies to develop national sustainability standards, as several countries have done in the forestry sector.[79]

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[77] A report by Accenture for UN Global Compact surveying CEOs on their company's motivations for investing in sustainability found that only 12% of CEOs listed pressure from investors/shareholders as a motivation. See Accenture, *The UN Global Compact-Accenture CEO Study on Sustainability 2013*, 2013.

[78] This view is promoted by the World Economic Forum, see World Economic Forum, *Corporate Global Citizenship*, http://www.weforum.org/issues/corporate-global-citizenship.

[79] For example, the Malaysian Timber Certification Scheme was developed by the Malaysian Timber Certification Council, a private corporation whose trustees include representatives from the government,

Additionally, public-private partnerships can guide governments in facilitating private investment in LEDS and secure co-financing for related initiatives such as land-use planning. Given the recent commitments of many large international companies to improve sustainability and reduce emissions from deforestation, countries should be in a good position to leverage private investment in support of AFOLU LEDS.

Public Private Partnerships, case study 1: World Cocoa Foundation

The World Cocoa Foundation (WCF) is a voluntary international organization representing more than 100 companies and 80% of the global corporate market in cocoa. WCF works by building public-private partnerships, connecting cocoa farmers, 'origin governments' and environmental organizations with large companies involved in the cocoa supply chain. The stated objectives of the WCF are to:

1. Ensure a sustainable supply of quality cocoa that benefits both growers and users;
2. Empower farmers to make choices that help develop strong, prosperous cocoa communities; and
3. Promote sustainable production practices that maintain and increase biodiversity and crop diversification.

WCF have three programs in Southeast Asia, including the Agribusiness Market and Support Activity (AMARTA) project, a cocoa farmer training program working with agribusinesses to improve quality and increase productivity. From 2006 to 2009, AMARTA trained over 20,000 farmers in Sulawesi and Bali in Indonesia, built over 100 solar dryers and launched a poster campaign to educate farmers regarding on and off-farm topics.

private sector, civil society and academia. It has been formally adopted as Malaysia's national forest certification standard and endorsed by the Programme for the Endorsement of Forest Certification.

Public Private Partnerships, case study 2: Tropical Forest Alliance (TFA) 2020

TFA 2020 is a public-private partnership involving developing and developed country governments, private consumer goods companies (which together form the Consumer Goods Forum) and civil society organization.[1] Partners act individually or in combination to reduce deforestation associated with sourcing commodities such as palm oil, soy, beef, paper and pulp. TFA 2020 is not a standard setting or certifying body but a 'market place for ideas and initiatives to tackle deforestation'. Its goal is to reduce tropical deforestation related to agricultural production by 2020 by mobilizing and coordinating actions by governments, the private sector and civil society. Its stated objectives are to:

1. Improve planning and management related to tropical forest conservation, agricultural land use and land tenure;
2. Share best practices for tropical forest and ecosystem conservation and commodity production, including working with smallholder farmers and other producers on sustainable agricultural intensification, promoting the use of degraded lands and reforestation;
3. Provide expertise and knowledge in order to assist with the development of commodity and processed-commodity markets that promote the conservation of tropical forests; and
4. Improve monitoring of tropical deforestation and forest degradation to measure progress.

According to TFA 2020, governments can contribute to the above objectives by:

- Engaging in efforts to improve planning and governance related to tropical forest conservation, agricultural land use, and land tenure;
- Facilitating the sharing of supply chain best practices and developing and supporting models for agricultural development that encourage rehabilitation of degraded lands for cultivation and allow smallholders to participate in markets;
- Sharing best practices for tropical forest and ecosystem conservation including experience working with smallholder farmers on sustainable agricultural intensification methods; and
- Advising and providing technical assistance on monitoring and reporting of tropical deforestation, and forest degradation.

4.2.5 Banks and other lending institutions

Commercial banks, quasi-public banks and microfinance institutions can play a key role in financing sustainable activities in the AFOLU sector by providing direct finance as well as guarantees and other financial products and services to help access finance from capital markets.

Commercial banks are important providers of finance for projects that generate returns. A growing number of banks (mostly large multinational banks) are increasingly making sustainable investments to reduce risks and promote environmental and social objectives. For example, Rabobank, a Dutch multinational banking and financial services company, has various financing initiatives for rural development and sustainable agriculture. It recently established the Rabo Sustainable Agriculture Guarantee Fund, which issues partial credit guarantees and works with financial intermediaries to offer credit to small- and medium-sized producers of sustainable

agricultural products in developing countries.[80] In 2011, Rabobank entered into a partnership with WWF to implement projects to achieve sustainable food supply. As part of this partnership, Rabobank supported a palm oil business in Indonesia to achieve RSPO certification[81] and now requires all palm oil companies seeking its financing to commit to RSPO.[82] Domestic commercial banks can also be an important source of finance; for instance, a project to reforest degraded lands in Northwest Guangxi, China is partially funded by a commercial loan from local banks.[83]

Quasi-public banks, including national development banks and banks with public objectives such as supporting agriculture and rural development, are an important domestic source of finance for the agriculture and forestry sector in many developing countries. These banks are often established by the government and may later be partially or fully privatized. Finance is aimed at supporting the agricultural and forestry industry in general but can also be used to fund emissions reduction activities. For example, the Vietnam Agriculture and Rural Development Bank, a state-owned bank that operates largely independently due to its commercial principles, provides credit to agricultural and forestry development activities, including loans to forestry companies and households for commercial tree plantation.[84]

Microfinance institutions provide low-cost finance to smallholders for activities that improve agricultural and forestry production and productivity. Microfinance institutions may receive finance from state and agricultural development banks for on-lending, and some quasi-public banks such as the Vietnam Agriculture and Rural Development Bank also offer microfinance to smallholders. Other examples of prominent microfinance institutions in Southeast Asia include Amanah Ikhtiar Malaysia, Philippines People's Finance and Credit Corporation, and Thailand Bank for Agriculture and Agricultural Cooperatives. Projects that aim to reduce emissions as well as improve livelihoods and incomes for smallholders can approach these microfinance institutions.

4.3 Domestic public finance

This section assesses domestic public finance relevant for AFOLU LEDS in USAID LEAF countries and is divided into two sub-sections. The first provides an overview of how domestic public finance is used in the AFOLU sector and how it is allocated to low-carbon activities in USAID LEAF countries. The second analyzes ways in which countries can raise and use domestic public finance to support AFOLU LEDS, building on existing experience in USAID LEAF countries.

4.3.1 Overview of domestic finance for AFOLU and climate change

In many countries, national governments are the main investors in forestry and agriculture. They frequently provide subsidies, equipment and training, while also financing sector governance. The majority of finance is through national budget allocations, which may be passed on in the form of subsidies, grants or concessional loans, often through national development banks. Governments also invest directly in agriculture and forestry through state or parastatal

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[80] Rabobank International, *Rabobank Sustainable Agriculture Guarantee Fund Brochure*, 2014. https://www.agriskmanagementforum.org/doc/rabobank-sustainable-agriculture-guarantee-fund.
[81] Rabobank Group, *Sustainability Report 2013*, 2014.
[82] Levin, J., G. Ng, D. Fortes, S. Garcia, S. Lacey and D. Grubba, *Profitability and Sustainability in Palm Oil Production: Analysis of Incremental Financial Costs and Benefits of RSPO Compliance*, WWF, FMO and CDC, 2012.
[83] Climate Finance Options, *Reforestation on Degraded Lands in Northwest Guangxi (China)*, 2014. http://climatefinanceoptions.org/cfo/node/190.
[84] Sikor, T., *Financing household tree plantations in Vietnam: Current programmes and future options*, Working Paper 69, CIFOR, Bogor, Indonesia, 2011.

enterprises which may either be financed through their commercial activities or through national budget allocations. The national budget itself is generally derived from taxes and revenues from commercial activities and other investments although may also be partially funded by loans or bond issuances.

Their central role in agriculture and forestry means that governments have an important role in financing or mobilizing finance for low emissions activities. In countries with sufficient capacity they are the main conduit for finances provided by international donors. With donor support they also finance establishment of policy and investment frameworks and invest in research, piloting and capacity building.

In Thailand the Climate Public Expenditure and Institutional Review (CPEIR) indicates that climate related activities represented around 2.7% of the government's total budget from 2009-2011 (52,000 million Baht or USD 1.6 billion per year).[85] The Ministry of Agriculture and Cooperatives (MOAC) and the Ministry of Natural Resources and Environment (MONRE) accounted for 55% and 29% respectively. Most of the MOACs climate budget was allocated to adaptation activities, while around half of MONREs climate budget was for mitigation activities, prominent among which were efforts to sustainably manage, protect and restore forest conservation areas.[86]

In Cambodia, the CPEIR included both domestic budget and 'off-budget' donor support. The total climate relevant expenditure between 2009 and 2011 was 3076 billion Riel (or USD 769 million). The expenditures of AFOLU-related ministries[87] accounted for 27% of this amount. However, only about 10% of the total climate relevant expenditure came from the domestic budget, reflecting the government's view that climate change is an area in which donors have a strong interest and comparative advantage.[88]

Although the CPEIR only covers two USAID LEAF countries, the figures indicate the scale of climate relevant domestic investment in the AFOLU sector, including resources for non-climate purposes with carbon benefits such as natural habitat protection. However, these figures have to be treated with caution due to the way in which 'climate' expenditure is assessed. For example, in Cambodia climate expenditure is dominated by road building owing to the policy that road design must take into account climate proofing. However, many roads show no clear evidence of climate proofing[89] and, in addition, roads can also contribute to increased emissions through deforestation and forest degradation.

4.3.2 Domestic public financial mechanisms for AFOLU LEDS

This section looks at prominent mechanisms that have, or could be been used to fund emissions reduction in agriculture and forestry with a focus on USAID LEAF countries. Broadly, governments use two types of strategy by to enhance cash flow towards low-carbon objectives:

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[85] Climate Public Expenditure and Institutional Review (CPEIR), http://www.aideffectiveness.org/CPEIR. The Climate Public Expenditure and Institutional Review (CPEIR) is piloting a methodology to classify a country's national budget in terms of climate relevant expenditure and has completed climate reviews for Thailand and Cambodia, with another underway for Viet Nam.
[86] Overseas Development Institute, *Thailand Climate Public Expenditure and Institutional Review*, 2012.
[87] Ministry of Agriculture, Forestry, and Fisheries; Ministry of Rural Development; Ministry of Water Resources and Meteorology; and Ministry of Land Management, Urban Planning and Construction.
[88] Overseas Development Institute, *Cambodia Climate Public Expenditure and Institutional Review*, 2012.
[89] Overseas Development Institute, *Climate Public Expenditure and Institutional Reviews in the Asia-Pacific Region: What have we learnt?*, 2012.

(i) ***Revenue raising measures*** to obtain funds from the private sector for use in publicly financed programs. Examples include environmental taxes and fees and CSR donations collected by public funds.

(ii) ***Policy measures*** to leverage private finance, such as subsidies, tax incentives, and risk guarantees. These measures do not raise finances but can be significantly more important in terms of the amount of finance that is ultimately directed toward a policy goal.

These strategies are of great importance given limited international finance for AFOLU LEDS and the amount of finance required to meet the scale of emission reductions necessary to stabilize atmospheric carbon dioxide levels. The finance generated from these strategies is typically channeled from the national level to the sub-national level.

It is important to note that financial incentives are only one means of encouraging private investment in low-emissions AFOLU activities. Creating an enabling environment is equally important and governments should aim to establish a long-term green growth vision with clear policies and regulations that provide the right signals to the private sector.[90] In addition, ensuring the security of investments through strong land tenure is essential as are effective law enforcement and high levels of transparency and accountability.[91]

(i) *Payment for Ecosystem Services*

Payments for Ecosystem Services (PES) are incentives offered to individuals or communities in exchange for maintaining or providing services related to biodiversity, water, climate change or other ecosystem functions. PES can mobilize resources for forest conservation or sustainable land management from entities that benefit from the services provided, such as industrial water users, tourism operators or, in the case of carbon emissions, the international community.

A number of PES schemes have been set up in USAID LEAF countries,[92] including comparable initiatives in which hydropower facilities fund upstream protected areas.[93] However, Viet Nam is currently the only country in the region with a national PES system. The Viet Nam Payments for Forest Environmental Services (PFES) system aims to promote forest protection and enhancement, while increasing the sector's economic contribution and shifting part of the state's

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[90] Green Growth Best Practice Initiative, *Green Growth in Practice: Lessons from Country Experiences*, 2014.

[91] Asia LEDS Partnership, *Accessing Finance for Green Growth and LEDS: Workshop Report*, March 12-14, 2014, Hanoi, Viet Nam.

[92] For example, Payment for water flow regulation in Maasin watershed, Iloilo province, Philippines; Wildlife Conservation Society biodiversity payment in Cambodia; Payment for water regulation and ecosystem conservation in Cidanau watershed, Benten province, Indonesia. For more information on these and other PES projects and programs see: Nguyen, T.Y.L. and Pham, T.N., *Payment for Environmental Services in Southeast Asia: A Regional Review of Policy Implementation*, WorldFish – Economy and Environment Program for Southeast Asia, 2014.

[93] See, for example, the case of the Nakai-Nam Theun National Protected Area (World Bank, *Nam Theun 2 Watershed,* http://www.worldbank.org/en/news/feature/2011/08/03/nam-theun-2-watershed) and Nam Kading National Protected Area in Lao PDR (Theun-Hinboun Power Company, *Biodiversity Protection*, http://www.thpclaos.com/index.php?option=com_content&view=article&id=57&Itemid=226&lang=en).

financial burden for forest protection to the private sector.[94] The program defines four eligible environmental services:

1) watershed protection;
2) landscape and biodiversity protection payments for tourism purposes;
3) forest carbon sequestration; and
4) protection of spawning grounds, sources of feeds and natural seeds, and use of water from forest for aquaculture.

To date, most PFES payments have been in watershed protection, while payments from tourism have been minimal and institutional mechanisms for the third and fourth services are still under development. Payment for forest carbon sequestration will be covered under the REDD+ framework, with finance expected to come from domestic public and private resources, international grants for readiness and pilot activities, and international results-based payments.[95]

Most transactions under the PFES scheme are channeled through Forest Protection and Development Funds at national and provincial levels. The provincial funds sign contracts with service buyers, collect payments, and disburse payments for forest protection activities to individuals, households, communities and organizations that are entitled to use and manage forest land. The flow of funds under the Viet Nam PFES system is depicted in Figure 5.

The Viet Nam PFES system has raised significant funding: as of September 2014, payments totaled USD 130 million, with hydropower plants accounting for over 97%, water companies for 2.5%, and tourism companies for the remainder.[96] Payments have supported protection of 2.8-3.37 million hectares of forests per year, accounting for 20-24% of total existing forest areas in the country.[97] However, many challenges still need to be addressed[98] and a monitoring and evaluation system is under development to ensure continuous improvement of the program.

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[94] Pham, T.T., K. Bennett, T.P. Vu, J. Brunner, N.D. Le and D.T. Nguyen, *Payments for forest environmental services in Viet Nam: From policy to practice*, Occasional Paper 93, CIFOR, Bogor, Indonesia, 2013.

[95] Pham, X.P., *Draft report on REDD+ Financial Management and Measurement, Reporting and Verification Linkages in Viet Nam*, Prepared for the USAID Lowering Emissions from Asia's Forests (USAID LEAF) program, Hanoi, 21 November 2014.

[96] Personal communication with Pham Van Trung, Viet Nam Forest Protection and Development Fund, Ministry of Agriculture and Rural Development, 17 October 2014.

[97] Viet Nam Forest Protection and Development Fund (VNFF), *Conclusion of Deputy Prime Minister Hoang Trung Hai at the review meeting of the 3 years of PFES implementation (2011-2013)*, 3 October 2014, Unofficial Translation provided by VNFF.

[98] E.g., Viet Nam agricultural subsidies (see Pham T.T. 2013); Thailand rice (see Nguyen, H. and U. Grote, *Agricultural policies in Viet Nam: Producer support estimates, 1986-2002*, International Food Policy Research Institute, 2004); Thailand rubber subsidies (Ron Corben, Thailand Ends Controversial Rice Subsidy Scheme, *Voice of America*, 16 June 2014. http://www.voanews.com/content/thailand-ends-controversial-rice-subsidy-scheme/1937693.html).

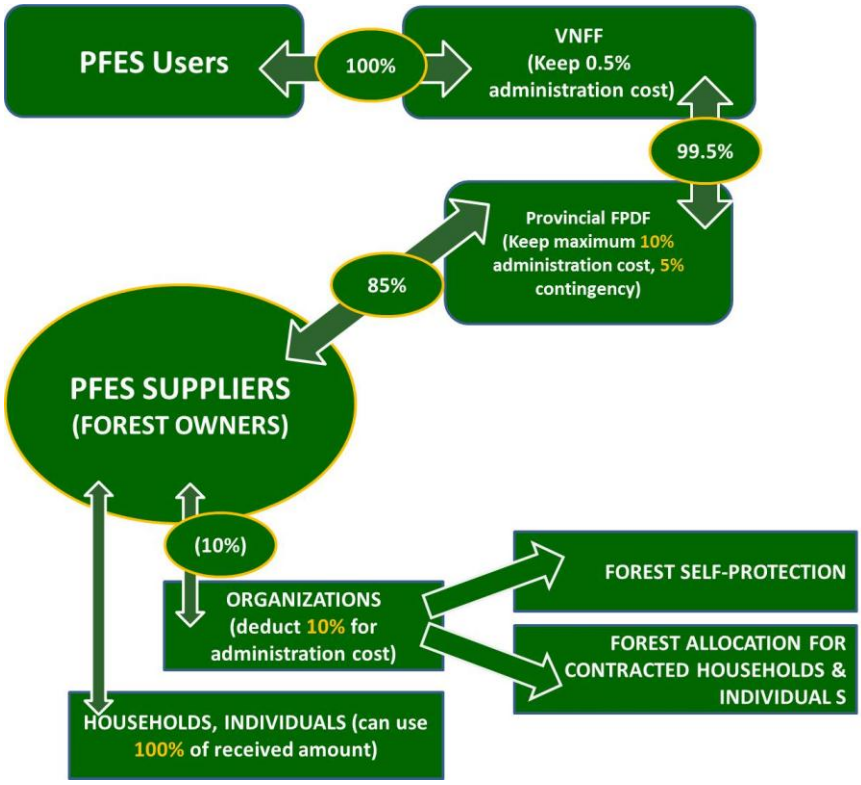

Figure 5: Flow of funds under Viet Nam Payment for Forest Environmental Services system. Source: Viet Nam Forest Protection and Development Fund. http://vnff.mard.gov.vn/nc90/fund-utilization/vnff-fund-utilization.html

(ii) *Subsidies and incentives, concessional loans, tax-related financial support*

Subsidies can be highly effective in redirecting major investments streams towards desired goals. For instance, Viet Nam agricultural production increased from VND 20,000 trillion in 1990 to VND 120,000 trillion in 2000 partly due to agricultural input subsidies and accompanying policies.[99] Other schemes in USAID LEAF countries are similarly aimed at boosting productivity, rather than sustainability, which receives a relatively small amount of funding.[100] A recent study finds that average annual domestic agricultural subsidies in Indonesia, which are often associated with historical deforestation, exceed REDD+ finance by 164 times.[101] This highlights the importance of reforming subsidies to remove perverse incentives and reward sustainable or low emissions behavior in supporting AFOLU LEDS . However, reform of subsidies will need to take into account any economic impacts associated with low emissions production.

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[99] Nguyen, H. and U. Grote, *Agricultural policies in Vietnam: Producer support estimates, 1986-2002*, International Food Policy Research Institute, 2004.

[100] For example, a 2004 study on agricultural policies in Viet Nam indicated that the government provided VND 10-13 billion per year for the breeding of pigs, cows and poultry; VND 100 billion to upgrade agricultural research institutes; VND 30-50 billion per year under the agricultural extension scheme; among a range of other subsidies. In comparison, the Viet Nam Five Million Hectare Reforestation Program, one of the government's largest forest conservation and development efforts to date, had a total funding of VND 31.8 billion during 12 years from 1998 to 2010, with only about a quarter of this coming from the government's budget. See Trieu, V.K., VNFOREST, *Five Million Hectare Reforestation Program (1998 - 2010)*, Presentation at Forest Asia Summit 2014. http://www.slideshare.net/CIFOR/five-million-hectare-reforestation-program-1998-2010.

[101] McFarland, W., S. Whitley and G. Kissinger, 2015, *Subsidies to Key Commodities Driving Forest Loss: Implications for Private Climate Finance*, Overseas Development Institute Working Paper.

Examples of subsidy programs specific to activities that support AFOLU LEDS include the Viet Nam Five Million Hectare Reforestation Program (1998-2010) which provided direct payments (grants) for reforestation activities and offered various incentives for investment in forestry production. The program also offered favorable loans for investment in production forests and less critical protected forests. Investors also benefited from 50-100% reductions in land use tax and were able to use land use certificates to guarantee loans. Additionally, tax incentives were given to organizations and individuals who planted trees or perennial crops on barren land or invested in processing industries.[102] The program resulted in forest cover increase from 32% in 1998 to 40% in 2010; however the quality and biodiversity of natural forests continued to fall during the program and the forestry sector remains relatively unprofitable and only weakly competitive.[103]

Other USAID LEAF countries have used subsidies to achieve low-emission goals outside the AFOLU sector. Malaysia's "green incentives", announced in its 2014 budget, include the introduction of tax allowances and the establishment of the Malaysian Green Foundation with an initial allocation of USD 4.3 million to promote uptake of green technologies.[104] Malaysia also established the Green Technology Financing Scheme (GTFS) in 2010 which certifies project proposals that are then submitted to participating banks and Development Finance Institutions (DFIs), who in turn receive guarantees and rebates as incentives to approve financing.[105] As of February 2014, the scheme has reportedly leveraged almost USD 1 billion in green investments.[106]

(iii) *Environmental/Forest Funds*

Environmental and Forest Fund are widely used to mobilize and channel resources towards sustainability and conservation efforts, and can help attract both public and private finance. Examples of such funds in USAID LEAF countries include the Laos Environmental Protection Fund, Malaysia Wildlife Conservation Fund, Thailand Environmental Fund, and Viet Nam Forest Protection and Development Fund.

Several environmental and forest funds in USAID LEAF countries have been successful in raising private finance through taxes and levies on natural resource extraction, penalties for legal transgressions and also through corporate social responsibility. Some funds leverage private finance through soft loans or direct payments aimed at catalyzing investment in activities such as sustainable forest management. Table 10 presents an overview of funds and associated financial mechanisms in USAID LEAF countries.

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[102] Nguyen, N.B., *The National Policy to Rehabilitate and Develop 5 Million Hectares of Forests and Other Issues on Wetlands*, n.d. http://www.worldfishcenter.org/Pubs/wetlands/pdf/Chapter07.pdf.
[103] Trieum V.K., 2014.
[104] Ernst and Young, *Budget 2014 Malaysia*, 5 November 2013. http://www.ey.com/Publication/vwLUAssets/EY_Take_5_-_3rd_edition/$FILE/EY-take-5-msia-edition-3.pdf.
[105] Asia LEDS Partnership. 2014.
[106] Asia LEDS Partnership. 2014.

Table 10: Overview of existing environment and forest funds in USAID LEAF countries

Fund	Goal	Source of funding	Financial Mechanism
Laos Environmental Protection Fund[107]	Fund small and medium projects for environmental protection	Can be funded by: • Taxes or levies from environment and natural resources; • Contributions by development projects; • Contributions by business and private sector; and • Interests generated by Fund's capital. So far contributions have come from ADB, World Bank, and businesses, with total income (2006-2010) at USD 13.9 million.	May provide funding through grants, low-interest loans, and subsidies. To-date only grants have been awarded.
Malaysia Palm Oil Wildlife Conservation Fund[108]	Help to portray a good image of Malaysia palm oil and provide funds for conservation projects	Launched with initial funding of: • USD 2.8 million from the Malaysian government; and • USD 2.8 million from the palm oil industry.	Provide grants to conservation projects.
Thailand Environmental Fund	Acquire and channel financial resources for the environmental protection and improvement	Initial sources of capital includes: • Fuel Oil Fund (USD 180m); • Revolving Fund for Environmental Development and Quality of Life (USD 20m); and • Grants from the Thai government (USD 50m). Other revenue sources: • Soft loan from the Japanese government; • Service fees and penalties; • Private donors; • International donors; and • Interest from Fund's capital[109]	Largely fund air quality projects, wastewater treatment systems and waste disposal systems.[110] However, it can fund any activity concerning the enhancement and conservation of environmental quality. In 2011 the Fund supported reforestation capacity building for communities.[111] Of the Fund's 36 million USD in 2014: • 70% was disbursed as soft loans to private sector; and • 30% was disbursed as grants to NGOs and communities.[112]
Viet Nam Forest Protection and Development Fund[113]	Mobilize, receive, manage and utilize effectively resources to protect and develop forests	Funding sources include: • Donor support • State budget • PFES payments (main revenue) • REDD+ payment (proposed)	Direct and indirect payments (both are grants) to service providers under PFES[114]

[107] USAID Lowering Emissions in Asia's Forests (USAID LEAF) Program, *International experience with REDD+ and national forest funds*, 2013.
[108] Malaysian Palm Oil Council, *Malaysian Palm Oil Wildlife Conservation Fund*, 2014. http://www.mpoc.org.my/Malaysian_Palm_Oil_Wildlife_Conservation_Fund_(MPOWCF)_.aspx.
[109] Melissa Moye, *Innovative Mechanisms to Manage Environmental Expenditures in Africa, Asia and Latin America and the Caribbean (LAC)*, 2002. http://www.oecd.org/sweden/2083726.pdf.
[110] Overseas Development Institute, *Thailand Climate Public Expenditure and Institutional Review*, 2012.
[111] Ibid.
[112] Asia LEDS Partnership. 2014.
[113] Viet Nam Forest Protection and Development Fund, http://vnff.mard.gov.vn.
[114] See the Payment for Ecosystem Services section for more information on the Vietnam PFES program.

(iv) *Other mechanisms*

USAID LEAF countries have also employed a variety of other mechanisms to leverage finance for the agriculture and forestry sector. For example, the Papua New Guinea Sustainable Development Program Ltd. (PNGSDP) used revenues from the Ok Tedi copper, gold and silver mine to implement development projects (including environmental projects) and to invest in a long term fund for the benefit of people in Western Province after the closure of the mine.[115] However, the Program was closed in October 2013 due to the expropriation of Ok Tedi Mining Ltd. by the national government.[116]

The Malaysian government is incentivizing socially and environmentally responsible investment through the Environmental, Social and Governance (ESG) Index and has allocated RM1 billion to invest in companies with high ESG scores through ValueCap, a government funded asset-management company.[117] A key target is the palm oil industry, one of the main contributors to AFOLU-related GHG emissions in Malaysia.[118]

Although USAID LEAF countries have a variety of mechanisms to channel and mobilize financial resources towards sustainability initiatives in the AFOLU sector, the transformational investment needed to achieve significant emissions reduction will require greater and more effective use of existing budgets as well as new finances. Work is also needed to create enabling environments and financial incentives to help unlock private investment for green growth.

[115] PNG Sustainable Development Program Ltd. (PNGSDP), *A report on PNG Sustainable Development Program Ltd and Ok Tedi Mining Ltd*, 2012. http://www.pngsdp.com/images/documents/20120411-PNGSDP-Media-Statement.pdf.
[116] PNG Sustainable Development Program Ltd. (PNGSDP), *Closure Statement*, 15 October 2013. http://www.pngsdp.com/images/documents/20131015%20Ad%20project%20closure.pdf.
[117] Ernst and Young, *Budget 2014 Malaysia*, 5 November 2013. http://www.ey.com/Publication/vwLUAssets/EY_Take_5_-_3rd_edition/$FILE/EY-take-5-msia-edition-3.pdf
[118] Liz Lee, Bursa to introduce Environmental, Social and Governance Index, *The Star Online*, 10 June 2014. http://www.thestar.com.my/Business/Business-News/2014/06/10/Bursa-to-introduce-more-products-The-sophisticated-products-include-Environmental-Social-and/?style=biz.

5 Conclusions

The landscape of finance available for LEDS in the AFOLU sector is complex and diverse. While many LEDS proponents will be tempted to seek only familiar sources of financing, the benefits for those who seek to cast their net wider are likely to be considerable. Taking this path will not be without challenges. In the first place, LEDS proponents will need to familiarize themselves with the finance landscape relevant to their jurisdiction and the sectors and sub-sectors they operate within. They will need to establish connections with a broader range of actors and understand their interests and concerns. In many cases, they will need to take a risk in pursuing a strategy that has yet to be tested.

The evidence suggests that significant efforts will be necessary to acquire financing. The total amount of international public finance for LEDS in the AFOLU sector – as for climate change more generally – is likely to fall short of expectation, and will not be sufficient to fund the ambitious goals set by many developing countries. At the same time, the limited public finances that are available often remain undisbursed due to the lack of investment-ready projects or questions over financial management capacities and safeguards implementation.

The challenges inherent in financing LEDS mean that financing considerations must be at the heart of LEDS design. Proponents should not first design their LEDS and then seek financing, but rather design strategies based around the kinds and amounts of finance available. Similarly, involving potential funders at an early stage is crucial to ensuring that strategies are suitably designed and also ensures that funders become invested at an early stage. In this sense, low-emission development strategies and LEDS funding strategies must be considered as two sides of the same coin, and integrated from the start.

Annex 1 Main sources of international public finance for sustainable AFOLU

FUND	TYPE OF SUPPORT FOR AFOLU LEDS	ACTIVITIES	TYPE OF FINANCE	FINANCE PLEDGED	FINANCE AVAILABLE	ELIGIBLE USAID LEAF COUNTRIES	ELIGIBILITY CRITERIA
UN REDD	- Institutional and capacity building - Non-results based support to AFOLU mitigation	REDD+ national programs	Grant	248 million	56 million	Bangladesh Cambodia Indonesia PNG Philippines Viet Nam	Funding allocations are prioritized for new National Programs according to: - Being a partner country of the UN-REDD program - Achieving regional balance - Enhanced coordination with other initiatives - Ability of UN agencies to assist the country - Ability to demonstrate progress/results in the short term based on REDD+ early action - REDD+ potential, and Commitment to applying the principles of the UN REDD program

FCPF READINESS FUND	- Institutional and capacity building
	- Non-results based support to AFOLU mitigation
		REDD+ readiness	Grant	355 million	241 million	Cambodia
						Indonesia
						Lao
						Nepal
						PNG
						Thailand
						Viet Nam
							- Must be borrowing member countries of the IBRD or IDA located in subtropical or tropical areas
							- 37 forest developing countries have been selected for the partnership so far
							- Priority is given to countries with:
							  - Significant forest area and carbon stock
							  - High relevant of forests in national economy
							  - High current or projected deforestation or degradation rates

FOREST INVESTMENT PROGRAM	- Institutional and capacity building
	- Non-results based support to AFOLU mitigation
		REDD+ institutional capacity;
		Forest governance;
		Forest ecosystem services
			Grant;
			Loan;
			Technical Assistance
				599 million	319 million	Indonesia
						Lao
							- Countries must be ODA-eligible and have active multilateral development bank programs
							- Programs and projects are prioritized according to the following criteria:
							  - Climate change mitigation potential
							  - Consistency with FIP objectives and principles
							  - Drivers of deforestation and degradation
							  - Inclusive processes and participation of all stakeholders
							  - Demonstration impact
							  - Forest related governance
							  - Safeguarding the integrity of national forests
							  - Partnership with private sector
							  - Economic and financial viability
							  - Capacity building

GREEN CLIMATE FUND	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures - Non-market results-based finance	Limitations or reduction of GHG emissions	Grant; Loan; Equity; Risk mitigation	9.5 billion	9.5 billion	All 12 USAID LEAF countries	- All developing country parties to the UNFCCC - Recipient countries can submit funding proposals through National Designated Authorities (NDAs) and will be allowed direct access through sub-national, national and regional implementing entities who meet the accreditation criteria and are approved by the Fund GCF funds can also be accessed through multilateral implementing entities, such as MDBs and UN agencies

FUND	TYPE OF SUPPORT FOR AFOLU LEDS	ACTIVITIES	TYPE OF FINANCE	FINANCE PLEDGED	FINANCE AVAILABLE	ELIGIBLE USAID LEAF COUNTRIES	ELIGIBILITY CRITERIA
GEF TRUST FUND 4	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	UNFCCC National Communications; Sustainable biomass; Sustainable land management; Reversing degradation	Grant; Co-financing; Loan; Risk mitigation	753 million	0	All 12 USAID LEAF countries	The project or program must: - Be consistent with national priorities and programs - Address one or more of the GEF focal areas - Be consistent with the GEF operational strategy - Seek financing only for agreed-upon incremental costs on measures to achieve global environmental benefits - Involve the public in design and implementation - Be endorsed by the governments in the countries in which it is implemented
GEF TRUST FUND 5	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	UNFCCC National Communications; Sustainable biogas	Grant; Co-financing; Loan; Risk mitigation	1.35 billion	643 million	Bangladesh Cambodia India Indonesia Lao Malaysia Nepal Philippines Thailand Viet Nam	Same as GEF Trust Fund 4
GEF SMALL GRANTS PROGRAMME	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	Conservation of biodiversity; Prevention of land degradation	Grant	No information available	No information available	All 12 USAID LEAF countries	- Developing countries worldwide - NGO/CBO in SGP participating country - Grantees are civil society organizations, primarily national and local NGOs, CBOs and indigenous people's organizations - The proposed project must correspond to one of GEF's focal areas and is aligned with the Country Programmed Strategy
UK'S INTERNATIONAL CLIMATE FUND	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	Policy; Forests; Conservation; MRV; Agriculture; Coastal Zone Management; Low-carbon development	Grant; Loan; Risk mitigation	6 billion	4.9 billion	Bangladesh India Indonesia Nepal Viet Nam	- ICF funds are typically channeled through global multilateral funds rather than towards specific country initiatives
JAPAN'S FAST START FINANCE	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	Forests; Conservation; MRV; Sustainable Agriculture; Rehabilitation; Forest Preservation	Grant; Loan; Technical Assistance; Co-financing; Equity and debt financing	15 billion	4 billion	All 12 USAID LEAF countries	- Developing countries that have entered into direct bilateral discussion with the Government of Japan

FUND	TYPE OF SUPPORT FOR AFOLU LEDS	ACTIVITIES	TYPE OF FINANCE	FINANCE PLEDGED	FINANCE AVAILABLE	ELIGIBLE USAID LEAF COUNTRIES	ELIGIBILITY CRITERIA
AUSTRALIA'S INTERNATIONAL FOREST CARBON INITIATIVE	- Institutional and capacity building - Non-results based support to AFOLU mitigation	Forests	Grant	189 million	64 million	Indonesia PNG	- Developing countries, particularly Indonesia and PNG
GERMAN INTERNATIONAL CLIMATE INITIATIVE	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	Conservation; Forests; Rehabilitation; Policy; MRV; Sustainable Agriculture; Carbon sinks/REDD+ Biodiversity	Grant; Loan; Risk mitigation	1.08 billion	At least 130 million annually	India Indonesia Nepal Philippines PNG Thailand Viet Nam	- Asia-Pacific, Africa, South and Central America, Small Island Developing States, Least Developed Countries - Any project proponent must prove at least three years of international project development experience - Projects should be innovative, integrated into national strategies, sustainable and should contribute to national economic and social development - Projects are selected through an annual two-stage procedure

EU COMMISSION GLOBAL CLIMATE CHANGE ALLIANCE	- Institutional and capacity building
	- Non-results based support to AFOLU mitigation
	- Adaptation measures
		Policy;
		Forests;
		Conservation
			Grant;
			Technical Assistance
				385 million	1.8 million	Bangladesh
						Bhutan
						Cambodia
						Lao
						Nepal
						PNG
							- Least Developed Countries and/or Small Island Developing States that are recipients of ODA
							- Countries selected based on the following criteria:
							  - Have national and/or sector climate change policies in place or the intention to prepare them
							  - Government keen to enhance policy dialogue and cooperation on climate change with the EU
							  - Already received, or is preparing to receive, budget support through the EC or other donors
							  - EC delegation with sufficient capacity to prepare and follow up on GCCA implementation
							- Actively involved in UNFCCC negotiations

NORWAY'S INTERNATIONAL CLIMATE AND FOREST INITIATIVE	- Institutional and capacity building
	- Non-results based support to AFOLU mitigation
	- Adaptation measures
	- Non-market results-based finance
		Forests;
		REDD+
			Grant	1.6 billion	1.3 billion	Indonesia	- Bilateral NICFI support typically goes to countries where multilateral initiatives and/or multi-donor cooperation already exist
							- Exceptions are made for:
							  - Countries that have already made such extensive progress at the national level that performance-based support from the implementation of an established strategy can be immediately provided; and
							  - Countries with which Norway has long, broad-based experience of cooperation on natural resource management, and which have already started internationally supported REDD programs
							  - Most NICFI activities pass through multilateral channels, including the FIP and the UN-REDD Program, and eligibility for these are based on FIP and UN-REDD criteria
							- Continued bilateral NICFI funding is generally dependent on performance

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NORDIC CLIMATE FACILITY	- Institutional and capacity building - Non-results based support to AFOLU mitigation measures	Threats to water and agricultural resources; Carbon sequestration	Grant	No information available	No information available	Cambodia Lao PDR Nepal Viet Nam	- Low-income countries - Partnerships between Nordic institutions, organizations, companies or authorities and qualified local partners in eligible countries - Project implementation period of 24 months or less - Focus on climate themes in call for proposals - Funding is through an annual call for proposals
NORDIC DEVELOPMENT FUND	- Institutional and capacity building - Non-results based support to AFOLU mitigation measures	Natural resources; Climate change-related capacity building	Grant; Co-financing; Technical Assistance	No information available	No information available	Bangladesh Cambodia Lao PDR Nepal Vietnam	- NDF grants normally constitute a part of the whole project or program financing and the NDF-financed component of the co-financed project or program should be in line with NDF's mandate and eligibility criteria - Low-income countries eligible for support from IDA and previously received NDF support - NDF may provide support to other countries on a case-by-case basis - The Fund's Board of Directors makes all grant decisions, while the Control Committee oversees that the operations are conducted in accordance with the Statutes
SCALING UP RENEWABLE ENERGY PROGRAM	- Institutional and capacity building - Non-results based support to AFOLU mitigation	Sustainable biogas	Grant	521 million	385 million	Nepal	- Eligible new renewable energy applications include cooking and heating applications including sustainable community forests and biogas or other renewable-based fuels - Preference is given to projects with strong poverty alleviation benefits and economic and/or social development and environmental benefits - Project proposals should demonstrate the potential to scale-up from lessons learned in pilot and demonstration projects and programs (such as those supported by the GEF) - Illustrate potential of the proposal for demonstration and replication, and scaling up

FRENCH GLOBAL ENVIRONMENT FACILITY	- Institutional and capacity building
	- Non-results based support to AFOLU mitigation
		Storing carbon in forests, soil and underground;
		Sustainable management of natural resources to serve economic and social development;
		Preservation of species and places;
		REDD+;
		Agro-ecology
			Grant	No information available	No information available	All 12 USAID LEAF countries	- All developing countries eligible for ODA as defined by OECD
							- Projects must:
							  - Have a significant, positive impact on the global environment
							  - Contribute to the economic and social development of the beneficiary country and populations
							  - Be innovative and have a demonstrable reproducible effect
							  - Ensure social, institutional and economic longevity after its completion
							  - Be implemented by an efficient and capable body
							  - Be primarily financed by other donors (including local ones) with the FGEF providing only minority funding
							- Be consistent with French cooperation and development priorities

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ADB CLIMATE CHANGE FUND	- Institutional and capacity building - Non-results based support to AFOLU mitigation - Adaptation measures	REDD+; Improved land use management Adaptation	Grant; Co-financing; Technical Assistance	50 million	0	All 12 USAID LEAF countries	- ADB's developing member countries - Proposals should be: - Consistent with the country partnership strategy and results framework as well as the objectives of ADB's Climate Change Program - Introduce innovative solutions - Adopt a participatory approach - Be catalytic - Have high demonstration value in the relevant sector - Have high potential for replication and scalability in the country
LEAST DEVELOPED COUNTRIES FUND	- Adaptation measures	Climate-resilient wetlands; Afforestation and reforestation; Agro-climatic monitoring systems; NAPAs; Climate-resilient agriculture	Grant	907 million	237 million	Bangladesh Bhutan Cambodia Lao Nepal	All Least Developed Countries are eligible, however proposals are reviewed in light of agreed project criteria: - Country ownership in that proposed projects must have been identified as priority activities in NAPA and show evidence of stakeholder consultation and support - Program and policy conformity in terms of project design, sustainability, and stakeholder involvement - A financing plan must be developed, together with an assessment of cost-effectiveness - Institutional coordination and support - Monitoring and evaluation - Before a LDCF project proponent can access financing, a country NAPA must be completed and sent to the UNFCCC Secretariat
SPECIAL CLIMATE CHANGE FUND	- Adaptation measures	NAPAs; Climate-resilient agriculture; Climate-resilient coastal protection	Grant	521 million	385 million	India Indonesia Philippines Thailand Viet Nam	- All Non-Annex I countries are eligible to apply - Priority is given to the most vulnerable countries in Africa, Asia and the Small Island Developing States (SIDS) - Most projects focus on "additional costs" imposed by climate change on the development baseline - Funding is only provided to address impacts of climate change in addition to basic development needs in vulnerable socio-economic sectors; however, projects do not need to generate global environmental benefits as long as additionality can be demonstrated
ADAPTATION FUND	- Adaptation measures	Climate-resilient protected areas	Grant	226 million	No information available	Cambodia PNG	- Developing country parties to the Kyoto Protocol that are Non-Annex I Parties and that are particularly vulnerable to the adverse effects of climate change including low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems

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PILOT PROGRAM FOR CLIMATE RESILIENCE	- Adaptation measures	Climate-resilient agriculture; Climate-resilient watersheds	Grant; Concessional Loan	1.16 billion	388 million	Bangladesh Cambodia Nepal PNG	- ODA-eligibility (according to OECD/DAC guidelines) - Existence of active multilateral development bank country programs - Priority is given to highly vulnerable LDC eligible for MDB concessional funds, including SIDS - A small number of pilot programs have been selected on the basis of an expert review of expressions of interest and proposed criteria for prioritization
MDG ACHIEVEMENT FUND	- Adaptation measures	Capacity building; National environmental policies; Adaptation	Grant	89 million	0	All 12 USAID LEAF countries	- Programs must be conceived by a minimum of two UN Agencies in collaboration with national Government and non-Governmental counterparts and submitted through the Resident Coordinator system of the UN
FCPF CARBON FUND	- Carbon payments	REDD+	Grant; Results-based payments	388 million	388 million	Cambodia Indonesia Lao PDR Nepal PNG Thailand Viet Nam	- Countries must have successfully participated in the readiness mechanism to join on a voluntary basis
BIOCARBON FUND	- Carbon payments - Institutional and capacity building (BioCF Plus)	Restoration of degraded land; Forest conservation; Forest restoration; Sustainable agriculture; Agroforestry	Grant; Technical Assistance (BioCF Plus)	No information available	No information available	Cambodia Lao PDR Papua New Guinea Viet Nam Bangladesh Bhutan India Nepal	- IBRD/IDA member countries - CDM/JI-eligible project activities (also voluntary window mainly for forestry and agriculture-based projects) and AAU transactions (through Green Investment Scheme) - Funds projects with at least 200,000 tCO2e emission reductions by 2012
GERMANY'S REDD EARLY MOVERS PROGRAM	- Non-market results-based finance - Institutional and capacity building	REDD+	Grant	No information available	No information available	All 12 USAID LEAF countries	- Subnational or biome approaches must be coherently integrated and aligned with national strategies and policy goals related to emission reductions and avoidance of deforestation
NAMA FACILITY (FROM GERMANY'S IKI AND UK'S ICF)	- Non-results based support to AFOLU mitigation - Non-market results-based finance - Institutional and capacity building	Mitigation activities in all sectors, including AFOLU	Grant; Loan; Results-based payment; Technical Assistance	120 million Euro (first two rounds)	0	All 12 USAID LEAF countries	Selection criteria include - Eligibility criteria such as submission by a national government or a qualified organization and concept for the phase-out of international support - Ambition criteria such as potential for transformational change, mitigation ambition, financial ambition, and sustainable development co-benefits - Feasibility criteria such as national and international embeddedness, log-frame and M&E, project structure and finance

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EUROPEAN INVESTMENT BANK	- Non-results based support to AFOLU mitigation - Public return-motivated finance	Climate change mitigation and adaptation, including sustainable forestry and agriculture	Loan; Bond; Equity; Risk mitigation	25% of total portfolio (climate lending was 21 million in 2014)	No information available	All 12 USAID LEAF countries	Projects must contribute to EU economic policy objectives. Projects are evaluated based on: - Technical scope - Implementation plan and capability - Operation plan and capability - Procurement in compliance with applicable legislation and EIB guidelines - Environmental impact - Analysis of products/services demand over the project's life - Profitability
INTERNATIONAL FINANCE CORPORATION	- Non-results based support to AFOLU mitigation - Public return-motivated finance	Adaptation and mitigation activities in all sector, including AFOLU	Loan; Bond; Equity; Risk mitigation	Climate lending was 2.5 billion in 2014	No information available	All 12 USAID LEAF countries	The project must: - Be located in a developing country that is a member of IFC - Be in the private sector - Be technically sound - Have good prospects of being profitable - Benefit the local economy - Be environmentally and socially sound, satisfying IFC environmental and social standards as well as those of the host country
KFW DEVELOPMENT BANK	- Non-results based support to AFOLU mitigation - Public return-motivated finance	Adaptation and mitigation activities in all sector, including AFOLU	Grant; Loan; Equity; Risk mitigation	No information available	No information available	All 12 USAID LEAF countries	- An agreement reached between the government of a partner country and the German Government during intergovernmental negotiations (held about every two years) serves as the basis for bilateral cooperation. - The partner countries propose projects and programmes within the framework of these agreements and are responsible for their preparation and implementation.