# Three Tools to Unlock Finance for Land-Use Mitigation and Adaptation

Executive Summary
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Agriculture, forestry and other forms of land use generate around a quarter of global greenhouse gas (GHG) emissions, and in many countries, the proportion of emissions from land use is far higher. At the same time, these sectors are highly vulnerable to the impacts of climate change. There are opportunities to redirect the hundreds of billions spent annually on land use around the world toward green activities without sacrificing either productivity or economic development. Low and middle-income countries and their development partners, as well as businesses and investors, urgently need to identify the changes in public support that can help to drive scaled-up private sector investment in land use mitigation and adaptation. This study has developed three tools to help governments and their partners achieve this.

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### **Executive Summary**

Moving to more productive and resilient forms of agriculture, forestry, and other forms of land use¹ is a complex challenge. Low and middle-income countries have committed to reduce land use emissions and are preparing to adapt to the impacts of climate change, but given the crosscutting nature of land-use activities, there are often apparent trade-offs between mitigation, adaptation and development objectives.² For governments and their partners finding solutions that correctly balance these priorities is crucial. Land and its resources are essential to meet the growing global demand for food, fuel, and fiber and directly support the livelihoods of over 2.6 billion people engaged in agriculture worldwide, many of whom live in the world's poorest regions on severely degraded land.³

It will be essential to significantly increase finance for green<sup>4</sup> land use activities to mitigate land-use emissions and adapt to the impacts of climate change at the levels required. Developed countries have committed to mobilize USD 100 billion in climate finance annually by 2020 to help developing countries address their low-carbon and climate-resilient needs. However, the international financing mechanisms that were envisaged to deliver land-use investments, including REDD+,<sup>5</sup> are not yet doing so at the necessary scale. There is an urgent need for new approaches to finance land-use mitigation and adaptation.

Annual flows of finance for land-use mitigation and adaptation constitute only a small portion of total land-use investments, with estimates ranging widely from USD 1.3 billion to 51.8 billion. Total financial flows to agriculture and forestry activities in developing countries alone are in the hundreds of billions of dollars, but these investments are predominantly business-as-usual (BAU) in nature, that is, they do not mitigate or adapt to the effects of climate change, and in some cases may increase emissions or climate vulnerability. The majority of land use finance originates from domestic private actors supported heavily by public subsidies and incentives.

- 1 Hereafter referred to as land use.
- 2 Land-use emissions represent over 50% of national GHG emissions in more than 60 (mostly developing) countries (WRI 2015)
- 3 52% of the land used for agriculture is moderately or severely affected by soil degradation (UN 2015)
- 4 We use the term green to describe instruments that support lower emitting alternatives to business-as-usual activities.
- 5 Reducing Emissions from Deforestation and forest Degradation, the green management and conservation of forests, and the enhancement of carbon stocks.

## Three tools to help governments and their partners to redirect land use finance

Limited understanding of investments in land use mitigation and adaptation inhibits the design of efficient and effective public interventions. In many cases, we do not know how much finance is being channeled to the land-use sector, how it is being delivered, what is being paid for and by whom. Nor do we fully understand the proportion of finance going towards green versus BAU activities or the opportunities that may exist to address barriers, or create incentives to shift land use activities towards greener outcomes. This study has developed three tools that address these issues. Governments and their partners can use them to:

- Inform the design of land use mitigation and adaptation strategies supported by multilateral and bilateral programs;
- Identify domestic and international financial instruments to redirect public and private finance towards greener land-use practices; and
- Encourage coordination between public instruments across land-use sectors.

The tools cover national and international, public and private finance, across a full range of land-use activities. Table ES-1 summarizes their scope and potential benefit to governments, development partners and private investors.

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Table ES-1: Tools to support the development and implementation of financing strategies for land use mitigation and adaptation

#### What does the tool tell us? How can this tool support land use mitigation efforts? Maps both public and/or private • Provides a comprehensive qualitative and quantitative picture investments and expenditures in of finance flowing to land-use mitigation green (and potentially brown) land-• Provides a baseline against which to measure progress use activities **LANDSCAPE OF** Identifies where the biggest barriers, financial gaps and • Provides quantitative estimates of **LAND USE FINANCE** opportunities lie current flows • Informs the design of land-use mitigation investment plans Identifies key actors and intermedithat align bilateral and multilateral support with domestic aries, investment instruments and efforts and needs recipients Assesses activity costs and revenues • Clarifies the specific needs of investors Identifies potential gaps threatening **FINANCIAL VIABILITY GAP** • Supports the design of tailored public incentives project viability ANALYSIS TOOL • Identifies entry points for public • Identifies exposure to investment risks financial support and incentives • Clarifies the relative scale of green and brown land-use finance Maps flows of public financial support

# **MAPPING TOOL**

**PUBLIC FINANCE** 

- to green and brown land-use activities
- Provides quantitative estimates of incentive flows
- Identifies potential incoherence between policy incentives
- Encourages prioritization and coherence across sectors
- Provides a rationale for cross-sectoral coordination, both at the level of government, but also amongst donors
- Identifies entry points for external support that maximize domestic/private sources of investment
- Clarifies options for greening supply chains and investments

### Landscape of Land Use Finance

The Landscape of Land Use Finance tool provides a snapshot of public and private land use finance going to green and potentially BAU activities. It can help countries and development partners to understand how much and what type of finance is flowing, among which key actors, and to which activities. It helps by identifying channels, gaps, and blockages in the flow of finance. Governments could track public or private expenditures / investments as a first step to obtain an initial overview of core land-use financial flows, rather than comprehensively including all flows. As capacity and data availability increases, they could expand the scope to include all actors to enable a more detailed understanding of how different sources of finance interact. This analysis can also inform the design of multi-sectoral strategies to address climate-compatible development challenges (such as REDD+ programs). The diagram below shows a typical landscape of land

use finance landscape diagram (known as a Sankey) where the width of flows represents the volume of finance flowing.

### **Financial Viability-Gap Analysis**

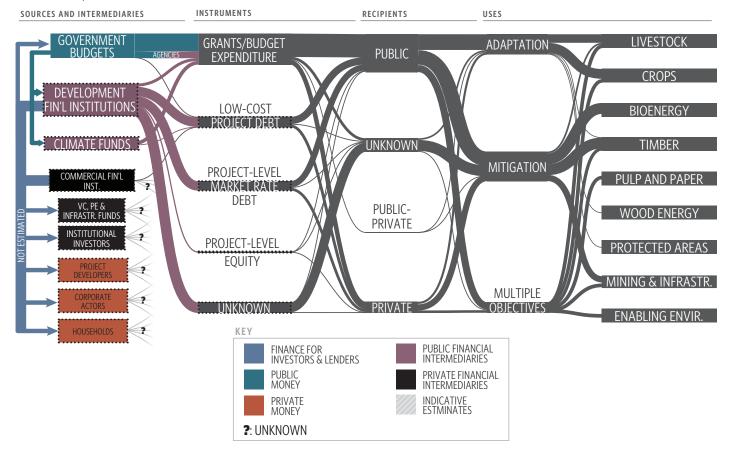
The Financial Viability-Gap Analysis tool explores whether climate change mitigation and adaptation activities are viable from a financial perspective. Some green land use activities are more expensive than BAU ones, resulting in a viability gap. Here activities need to be publically funded or supported. Other green land use activities are not intrinsically more expensive but face risks or information gaps that can increase costs and discourage investors. Here public financial instruments can help overcome those barriers.

By highlighting potential barriers to the deployment of green activities (risk, information and capacity, or financial gaps), as well as the entry points for public and private finance, this tool can inform the design

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Including philanthropic and international public funding.

#### Tool 1: Landscape of Land Use Finance



of tailored public incentives to unlock investment in mitigation and adaptation activities. Governments can increase the financial viability of green land use investments by:

- Reducing costs through e.g. low cost loans and guarantees, tax breaks, and project preparation grants;
- 2. **Increasing revenues** using e.g. price premiums, price floors, and pay-for-performance grants to improve investors' returns
- Improving the enabling environment by e.g. legal / regulatory standards, land allocation and management systems, certification standards, and implementation of monitoring and enforcement systems.

The financial viability gap analysis tool can be carried out as part of a detailed sectoral assessment or at the activity level.

### **Public Finance Mapping**

The public finance mapping tool provides a framework to track key public financial instruments for climate change mitigation and adaptation in any given country, jurisdiction or sector. It can identify whether instruments target BAU or green land-use activities. This tool enables governments to assess whether their overarching financial policies and instruments, including those supported by development partners, are coherent, and consistent and to what extent they provide support for green production. This tool can provide insights to enable greater coordination across sectors, technologies and geographies, among governments and donors, by identifying entry points for donors to deliver finance in ways that maximize domestic and private sources of investment. As a first step, governments could focus on mapping incentives for BAU and green activities. In time it could also be useful to map disincentives arising from, for example, taxes and fees imposed upon land use activities.

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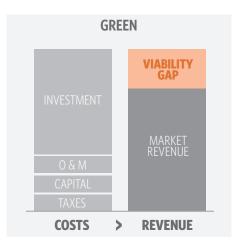
Tool 2: Financial Viability Gap Analysis tool

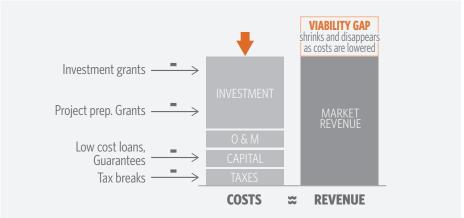
Viability gaps arise where costs of an activity are greater than available revenues

Public and private finance can help tackle the viability gap by:

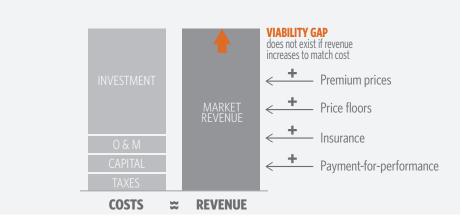
**1.** Reducing costs



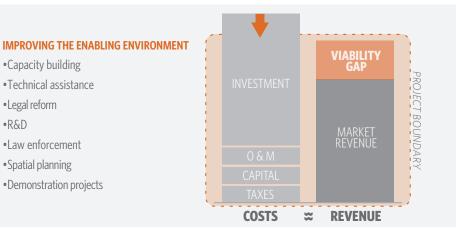




**2.** Increasing / creating revenues



3. Improving the investment climate – tackling risk, return and information barriers



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Sectors and Uses Financial Instruments Financial Instruments Sectors and Uses Livestock Livestock Grants Grants Crops Crops Equity Equity Bioenergy Bioenergy Guarantees Guarantees Timber Timber Pulp and Paper Market rate loans Market rate loans Pulp and Paper Wood Energy Wood Energy Tax incentives Tax incentives Protected Areas **Protected Areas** Concessional loans Concessional loans Mining & Infrastr. Mining & Infrastr. **PUBLIC** Insurance Insurance Enabling Environ. **ACTORS** Enabling Environ. DOMESTIC **BUSINESS GOVERNMENTS**, **GREEN AS USUAL** INTERNATIONAL, PHII ANTHROPIO

Tool 3: Public finance instrument mapping tool showing incentives for land use activities

Land use encompasses a diverse and crosscutting range of political, economic, environmental and social interests. Getting the right combination of policies and financial instruments in place to unlock green investment at scale is politically challenging and often subject to long-standing vested interests. Improving the ability of governments to assess empirically how finance is flowing across land-use sectors, which viability, cost and risk gaps need to be addressed, and whether public or domestic instruments are helpful

and coherent, is essential. Success will also depend on whether governments have the capacity to define, test, and verify, green activities in ways that delivers developmental and environmental outcomes. The frameworks, approaches and tools presented in the paper seek above all to help lower and middle-income countries and their development partners to identify opportunities to work together with businesses and to jointly finance green land-use transitions.

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