

Incentives to save the forest

Financial instruments to drive sustainable land use

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Global Canopy Programme is a tropical forest think tank working to demonstrate the scientific, political and business case for safeguarding forests as natural capital that underpins water, food, energy, health and climate security for all. Our vision is a world where rainforest destruction has ended. Our mission is to accelerate the transition to a deforestation free economy.

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Introduction

Unsustainable farming and logging is behind most tropical deforestation. There are more sustainable methods that address this by using the land more efficiently, reducing deforestation, but farmers, producers and others will not make this switch automatically. This briefing describes how governments and companies can use basic financial instruments to channel greater investment in this area.

There is a lot of discussion of financial instruments and 'innovative financial mechanisms' in conservation circles, but many people working in this area are not experts in finance. This document aims to bridge this gap, helping conservation and development experts understand some of the opportunities for financing sustainable land use.

This briefing builds on Global Canopy Programme (GCP) work in the Unlocking Forest Finance project (UFF). Since 2013, UFF has worked towards building investment portfolios in sustainable land use in three regions in the Amazon: San Martín in Peru, and Mato Grosso and Acre, both in Brazil.

The San Martín project will enter a pilot phase in 2017, providing loans to farmers to help them farm more sustainably.

For more information, see financingsustainablelandscapes.org

The challenge of financing sustainable land use

The case for sustainability

Tropical forest regions urgently need to move towards more sustainable land use systems. In the past ten years, agricultural expansion has driven more than two thirds of all deforestation in tropical regions. This is caused by a rising demand for commodities including beef, soy and palm oil, in turn driven by increasing population and rising incomes. In the future, demand for these commodities will intensify already high pressure on forests.

At the same time, deforestation and carbon-intensive agriculture contribute almost a quarter of all global greenhouse gas emissions, making land-use and land-use change one of the most important targets for emission reductions in the fight against climate change (IPCC, 2014). In turn, climate change is harming forests (Zemp et al, 2017).

If tropical forests are to survive, then existing agricultural lands must become more productive. New farming and forestry techniques could halt the expansion of the agricultural frontier and, at the same time, enhance productivity to yield more from the same area (see cattle intensification example below). The challenge is to find ways to incentivise this change, providing governments and farmers with the resources to make a large-scale transition to more sustainable land use.

BOX 1: Financial instruments: a definition

A financial instrument is a legally binding agreement between two or more parties that has a monetary value or defines a right to payment in certain circumstances. In this briefing, we consider capital instruments, (equity, loans, bonds and grants) which supply capital, and risk mitigation instruments (insurance, credit guarantees and off-take agreements) which reduce levels of risk exposure for different parties.

Financial mechanisms combine financial instruments to achieve the return/risk profile needed to attract private investors.

BOX 2: What do we mean by ‘sustainable land use’?

For the purposes of this briefing, ‘sustainable land use’ means agriculture, forestry, land restoration or conservation (or projects combining these), which should:

- Have a positive impact on the environment (such as reducing or ending deforestation, conserving biodiversity, reducing greenhouse gas emissions, preserving watersheds, improving soil fertility)
- Increase productivity
- Generate social benefits such as jobs
- Be financially sustainable in the long-term

How does ‘sustainable land use’ benefit forests? It aims to meet society’s requirements for food, fibre, materials, and other products by using land more efficiently, with a reduced overall impact. This may mean intensifying production on already deforested land, while preventing deforestation or degradation of forests.



An example of sustainable land use: Cattle intensification in São Félix do Xingu

São Félix do Xingu is a municipality in the state of Pará in Northern Brazil. It covers an area of 8.4 million hectares, an area roughly the size of Portugal, of which around 75% is forested. The cattle ranching industry is the greatest driver of deforestation in the state, as low-intensity cattle ranching degrades the landscape and creates pressure to clear forest for new pastures.

São Félix has developed a strategy to reduce this pressure by intensifying cattle production. Through the programme, cattle producers receive support to implement practices that avoid soil degradation and allow more cattle to be raised on the same amount of land (Hovani, 2015).

The need for finance

Land use needs additional investment to make it environmentally sustainable, and able to meet increasing food demands while protecting forests and reducing emissions of greenhouse gases. Estimates of investment needs vary. The Food and Agriculture Organization of the United Nations (FAO) projects an annual requirement of USD 83 billion in developing countries to meet increased demand for food. Vivid Economics (2017) found that making agricultural supply chains ‘deforestation-free’ in tropical regions would take annual investments and trade finance of USD 200 billion.

Governments alone are unlikely to be able to provide this capital. To put the challenge in context, annual government investment in agriculture was USD 38 billion in low and middle income countries in the mid 2000s (FAO, 2012a).

To fill the gap, it will be essential to attract private capital, from both domestic and foreign sources. This will mean diverting the money already flowing into 'business as usual' farming and forestry. According to FAO, private investment in these sectors totalled USD 168 billion per year globally (ibid.).

Nonetheless, public money has a crucial role to play in catalysing this private investment in sustainable land use. When deployed strategically, overseas development assistance (ODA), climate finance, direct payments from donor governments and domestic public finance can incentivise much larger private investments.

This can help overcome two major challenges for attracting large scale private investment in more sustainable land use:

Challenge 1: Capital markets are underdeveloped in many tropical forest countries

Most of the world's tropical forest is found in developing countries, which have underdeveloped capital markets compared to those found in economies such as the EU, US and parts of Asia. As a result, access to financial products such as bank loans, equity investment and insurance is usually limited. When finance is available, costs tend to be high. Without adequate access to finance, many landowners have little option other than to adopt unsustainable practices that degrade 'natural capital', such as forests.

Challenge 2: Sustainable land use investments are perceived as high risk, low return.

There is a general perception of high risk and low returns in climate change mitigation investments (GGGI, 2016). This is a major issue when investments are relatively new and unproven, as is the case with large-scale sustainable land use.

Even in long-established sectors, risks may appear too high. In some countries, smallholder farmers are responsible for most deforestation (MAAP, 2017). Investment could help these farmers use the land more effectively, reducing the need to expand into the forest. But many investors are discouraged by high risks in smallholder agriculture, including "constraints of agricultural planting seasons, unpredictable weather conditions, low production rates, and limited technical or management skills of farmers and livestock breeders" (World Bank, 2015).

BOX 3: Forests and climate change

Maintaining current carbon uptake by forests, restoring previously forested land and avoiding emissions resulting from forest loss can meet up to 50% of the global carbon emissions reduction needed to keep climate change within 2°C (Houghton et al, 2015).

For many governments in tropical regions, addressing deforestation forms the core of their international climate change commitments. Incentivising more sustainable land use may be a particularly cost effective way of doing this.

How can financial instruments help?

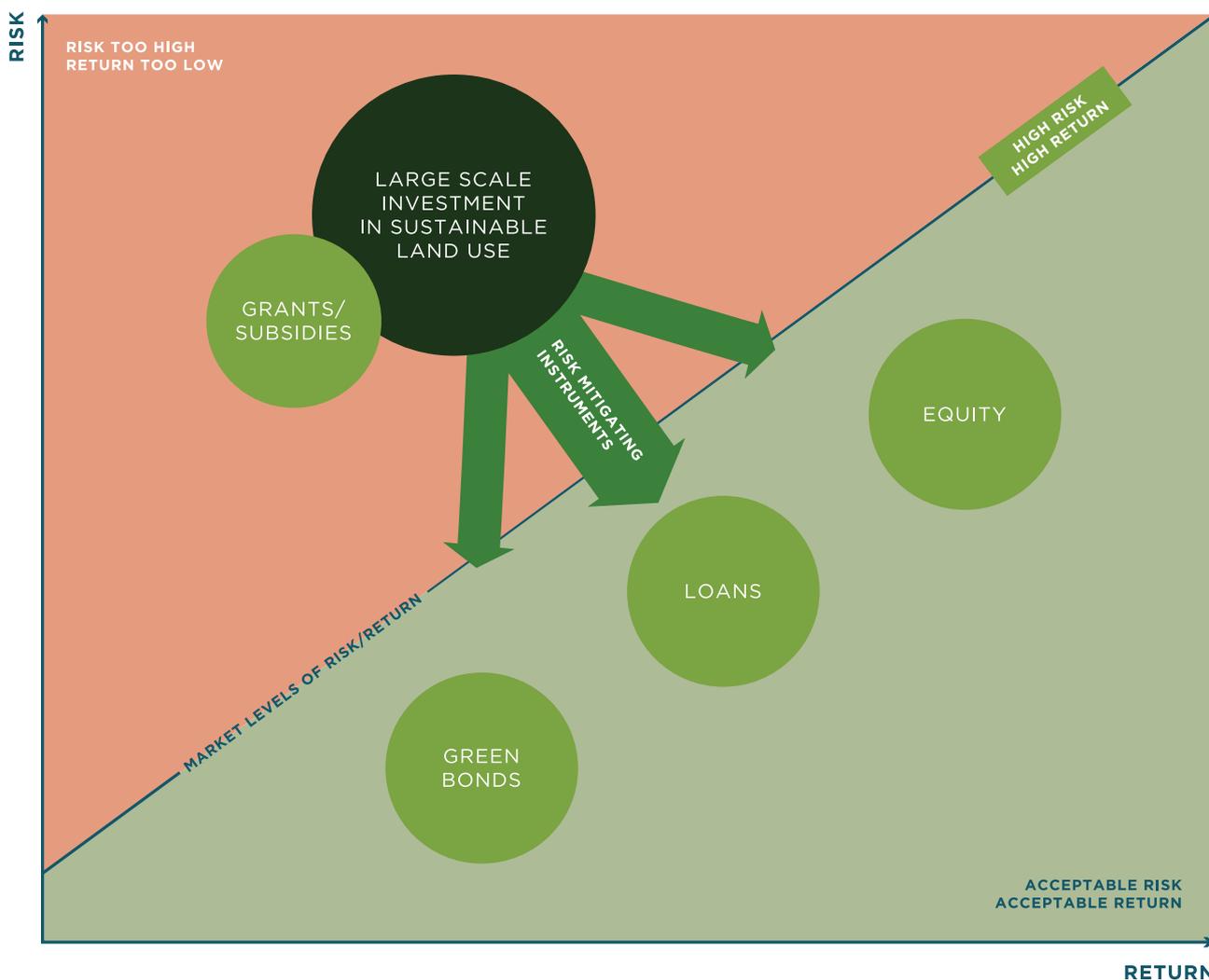


Figure 1: Use of risk mitigating instruments to unlock more capital investment

Investment in sustainable land use is similar to investment in many other areas: different capital instruments (green circles in the diagram above) are needed at different stages of a business, as each has a different risk/reward profile. The use of these instruments is described in Part 1.

As a business becomes more established, it becomes a safer investment, and is therefore able to access other types of capital. But for investments in sustainable land use, the risk may seem too high or returns too low – so it remains in the pink area shown on the diagram.

However, risk mitigating instruments (green arrow) may shift an investment profile into a position where it can access different types of capital. This is achieved by reducing certain kinds of risk, or parcelling up risk and shifting it away from the investor. For example, credit guarantees from development finance institutions can take on some of the risk of giving loans. Weather insurance can reduce the risk of droughts or floods for farmers. If a farmer has an off-take agreement for his or her produce, lending capital or investing in equity may be more appealing as the risk of commercialisation is eliminated. These instruments are described in Part 2.

Part 1: Capital instruments

Capital instruments are needed to channel money towards sustainable land use. A wide variety of instruments are possible. Each instrument is suited to particular circumstances. For example, grants and equity may be useful at the early stages of an investment, while bonds are more suited to well-established projects.

1.1 Loans

Loans are financial instruments used to secure funding from banks, financial institutions and other investors. They are generally lower risk than some other instruments (grants, equity, see Figure 1), as they are often guaranteed against collateral such as property.

The terms of loans reflect their purpose. In the case of agricultural working capital loans, these may be repayable after a single crop rotation. Interest rates usually reflect the underlying creditworthiness of the borrower. However, investors may adapt the terms to support other goals.

For example, some lenders may offer subsidised interest rates. Over the 20th Century, countries like the US, France and Brazil used subsidised interest rates to modernise practices, increase yields and improve access to credit (AFD, 2015). Longer repayment periods are also helpful for land use projects, which may take several years to become profitable, as in the case of forestry. The Vietnamese government has demonstrated this approach, offering long-term loans to coffee farmers to help them replant degraded plantations (EcoAgriculture Partners, 2015).

Loans are very flexible financial instruments, offering finance at a range of different scales, from whole regions, to large enterprises, to smallholder farmers. This briefing will focus on the smaller scale loans.

Where are we today?

Agricultural credit is widespread in developed countries. But it is much harder to access in developing countries (IISD, 2015). In developing countries, only 4.7% of adults in rural areas have a loan from a formal financial institution (IFC, 2014).

Interest rates may be prohibitively high. In Peru, there are credit products designed for all sizes of producer. Nonetheless, credit only reaches 8% of registered agricultural producers, according to national agricultural bank Agrobanco. This is likely due to high interest rates, which are often around 15%, but can be over 30% for some types of small enterprises (USDA, 2015).

Brazil has made significant progress in offering sustainability-focused credit, such as the ABC Programme. However, it is still dwarfed by more mainstream programmes. The ABC programme made up only 1.9% of the agricultural credit offered in the agricultural year 2013/14 (Forest Trends, 2015).

To create convincing incentives, loans for these practices should offer more attractive conditions than loans for unsustainable business-as-usual farming. However, these incentives may not be strong enough (see Box 3 on credit in Brazil).

BOX 4: A case study of agricultural credit in Brazil

To incentivise sustainable agriculture, interest rates could be reduced for sustainable activities and raised for more conventional ones. This could offset the high initial investment cost for producers aiming to make their practices more sustainable. However, current incentives offered by the Brazilian government seem to fall short of this goal.

The **ABC Plan (a Portuguese acronym for 'low carbon agriculture')** aims to finance 'climate smart' agricultural practices. The programme has been consistently undersubscribed. In the most recent year (2015/16 harvest), it disbursed around two thirds of the BRL 3 billion available (Observatorio ABC, 2017).

The main barriers to greater uptake include high initial investment and a lack of qualified technicians for the development of climate-smart projects. Moreover, the ABC credit is not particularly competitive compared to loans for more conventional agricultural activities. For instance, interest rates offered by the ABC are 8.5% per year, which are higher than some rates for business-as-usual agriculture. For example, the Constitutional Fund for the North region (FNO) can be 7.5% for medium to large producers (FGV 2015).

Smallholders can borrow at even lower rates. For instance, the National Program for Family Agriculture (known as Pronaf in Portuguese) offers rates from 1% to 5.5%. The equivalent credit product for sustainable production has the same rate, but includes less technical assistance, when compared to its conventional counterpart (Latawiec et al 2017).

What are the barriers and opportunities?

Several private funds such as Althelia are exploring innovative ways of supporting sustainable land use through concessional loans. Scaling up these funds - which are currently relatively small - presents one possible opportunity.

Subsidised lending to support sustainable land use can be more effective when bundled with technical assistance. For example, Forest Trends (2015) looked at five hypothetical scenarios for a farmer in Brazil. The results suggested that switching to sustainability would only be profitable if the farmer were able to access preferential rates of interest, and incurred few costs from learning new farming methods. If they did incur initial learning costs, even a highly subsidised interest rate would not make the switch to sustainability more profitable than business-as-usual in this case.

However, combining technical assistance with loans may push up the overall cost of investment. This was the case for the Unlocking Forest Finance (UFF) project in San Martin, Peru, which aims to provide loans to farmers. At the time of writing, the UFF aimed to find additional grant funding to cover some of the cost (see Figure 2).

In some of the world's poorest countries, poor governance may be the main barrier. A study of 10 African countries found that rural credit often did not reach farmers, due to corruption, lawlessness and poor regulatory quality (Salami and Arawomo, 2013).

1.2 Equity

Equity refers to money invested in shares of a company. This investment is not returned to the investor until the shares are sold on or the company is liquidated. All businesses require equity capital, and raising equity is an important goal for early-stage businesses.

BOX 5: First-loss provisions

Equity investors put up investment that is at risk if the company fails. In the event of a bankruptcy, all other creditors must be satisfied before equity holders are paid. In exchange for taking this position, investors generally expect higher returns than other investors and lenders.

Some impact investors, development banks or governments may accept returns lower than the market rate to support environmental or social outcomes – putting them above the risk/return line in Figure 1. Equity is not the only instrument which can take on such ‘first-loss’ risk. Other examples include junior debt and guarantees (see section on credit guarantees).

This changes the risk-return profile for other investors. In this way, first loss provisions can help companies mobilise greater amounts of capital than would otherwise be available (GIIN, 2015).

Where are we today?

In general, there is a lack of equity in developing economies. However, there are some innovative private funds making investments in sustainable land use.

One example is Moringa Fund, which describes itself as “a EUR 84 million investment vehicle for agroforestry projects with high environmental and social impacts.” It makes equity and quasi-equity investments from EUR 4-10 million in size, in Latin America and Sub-Saharan Africa. Recent investments include a cashew company in Benin, a coconut and citrus company in Belize and a coffee company in Nicaragua (Moringa, 2017). While important, such private funds remain relatively small – in number and in size - compared to the multi-billion dollar investment required for agriculture to transition to sustainability.

What are the barriers and opportunities?

Equity investment plays a key role in initiating potentially risky, innovative land use projects. Increased equity investment could help attract other kinds of capital (see box on first loss provisions) by reducing the risk profile for subsequent lenders and investors (Hervé-Mignucci et al, 2013). A relatively small public investment taking a first loss position may be able to leverage larger private sector investments, a potentially cost-effective way for countries to meet climate change commitments.

According to the Global Impact Investment Network, innovative investments need more ‘risk capital’ – that is, funders who are willing to take the first-loss position (see Box 4) in order to test out a potentially high-impact model.

1.3 Grants and subsidies

Grants are usually payments for a predefined purpose, while subsidies are usually forms of support for running costs over a longer period. Subsidies can take on a wide variety of forms, including tax breaks, price floors and low-cost loans. The common element to both grants and subsidies is that they do not need to be paid back. Nonetheless, there are usually strict conditions attached to the money. If these are not met, subsequent payments may be withheld.

New, high-risk projects can be particularly dependent on this kind of funding at the start. Grants and subsidies may also be used to fund specific elements of sustainable land-use projects that do not return a profit directly, for example monitoring systems or conservation (GCP, 2016). These instruments may also have a 'de-risking' function, changing the risk return profile of investments to make them attractive to private capital investors.

BOX 6: Payment for results

Bilateral 'payments for results' schemes are examples of grant finance between countries, where a donor country pays another country for reducing deforestation against a historic baseline (Wong et al, 2016). For example, in 2008 Norway signed an agreement with Brazil to pay up to USD 1 billion over a five-year period, in return for reducing greenhouse gas emissions from deforestation below an agreed level (Birdsall et al, 2014).

Where are we today?

Agricultural subsidies directly support a great variety of agricultural practices in many parts of the world. One example of this approach is the Rubber Subsidy Program in the State of Acre, Brazil. This policy guarantees a price subsidy for natural rubber, creating a financial incentive to protect the forest as a source of this forest product. This is estimated to have benefited 1.2 million hectares of forest in Acre between 1999 and 2001 (Kugel and Jha, 2013).

On a grand scale, grant funding between countries can support conservation (see 'payment for results' box). However, such mechanisms have had mixed results. Whereas Brazil achieved its targets and received payment from Norway, a similar agreement with Indonesia has only been paid in part, as the country has failed to prevent further destruction of its forests and peatland (Clark, 2016).

What are the barriers and opportunities?

Subsidies and grants have the potential to tip economic incentives towards protecting the forest. But these efforts will be swamped if they are up against larger subsidies pulling in the opposite direction.

A study from the Overseas Development Institute found that Brazil and Indonesia gave subsidies of more than USD 40 billion to support production of beef, soy, timber and palm oil between 2009 and 2012 (ODI, 2015). Many of these schemes are likely to increase deforestation. The subsidies found in the study represented 126 times more money than the governments received for conservation from donor countries during the same period (Neslen, 2015).

If governments make a coherent decision, at the highest levels, to use land more sustainably and reduce deforestation, this could ensure that these instruments have an overall positive effect. This may mean reforming policies and the conditions attached to current subsidies (see Box 3).

1.4 Bonds and green bonds

A bond is a financial instrument that enables governments, banks and corporations to borrow large amounts of money, often more than USD 1 billion, for a fixed period of time and at an agreed rate of interest. Bonds can be traded and are typically placed with institutional investors, including mutual funds, pension funds, commercial banks, insurance companies, corporations and central banks.

There is growing interest in issuing 'green bonds' to raise capital for projects with defined climate and sustainability benefits, such as renewable energy, low-carbon transport infrastructure or sustainable land use (USAID, 2015). Green bonds do not generally offer a price advantage to issuers. Indeed, they have similar risk/return profiles as regular bonds, with the additional cost of certification. Nonetheless, the green labelling can help borrowers engage a broader spectrum of investors.

Where are we today?

The green bond market is growing. In 2016, green bond issuance reached a record USD 90 billion (Reuters, 2017). The Climate Bonds Initiative (2016a) projects that this will continue to grow strongly. To date, approximately 75% of this volume is funding a handful of sectors: renewable energy, energy efficiency and transport (Climate Bonds Initiative, 2016a).

Labelled 'green' bonds are only part of the picture. As green bonds have an additional certification cost, some projects may be using standard bonds to raise money for climate change mitigation. By mid-2016, labelled green bonds only made up 16% of the total 'climate-aligned' bonds outstanding. Together, these bonds total almost USD 700 billion (Climate Bonds Initiative, 2016b). However, only 1% of this sum came under the theme of 'agriculture and forestry'.

What are the barriers and opportunities?

Issuing a bond requires a well-established series of projects to securitise. Most sustainable land use projects are not yet at this point. For this reason, bonds are not the ideal instrument for raising capital at this stage.

However, this could change rapidly. There are several groups working on different models, in places as diverse as Indonesia, Madagascar and Kenya. It may be a matter of time before bonds channel large-scale funds towards efforts to reduce deforestation.

Sovereign green bonds are a promising recent development. In December 2016, Poland became the first country to issue its own green bond, with some of the proceeds dedicated to organic farming and forest management. France followed with a EUR 7 billion sovereign green bond in early 2017. Several others are predicted throughout 2017 to finance international climate change commitments, including Nigeria, with a project that includes both renewable energy and afforestation (Climate Bonds Initiative, 2017). These developments may open the door to countries issuing green bonds to protect tropical forests. As sovereign bonds are generally seen as a safe investment, this could overcome some of the barriers linked to the perception of risk.

Part 2: Instruments to mitigate risk

Risk mitigating instruments are designed to reduce project risks to make investments appeal to a wider range of investors.

2.1 Insurance

Insurance is a contract that guarantees to reimburse losses in defined and specific circumstances. It is useful for shifting the risk profile of investments, helping projects move towards a level of risk and return where they can receive more investment (see Figure 1). Here we consider two examples: weather insurance (see Box 6) and political risk insurance.

BOX 7: Index-based weather insurance

Weather risk insurance can help farmers restart production more easily in the event of a climate-related catastrophe. This reduction of risk can have an added benefit in helping farmers access credit more easily (Friedel, 2015).

In the traditional weather insurance model widely used in the developed world, farmers take out insurance to cover potential losses. For example, orange farmers in Florida insure their crops against flooding, hurricanes and frost. If the crop is damaged by these weather events, an adjuster comes to each individual farm and assesses the value of the damage. In the case of orange farmers, this can be a lengthy process (Crop Insurance, 2012).

For smallholders in developing countries, this type of insurance can be prohibitively expensive. However, alternatives are emerging. 'Index-based insurance' can provide a lower-cost form of insurance to smallholders, as the insurer pays out when external factors pass certain thresholds, in the case of unusually low rainfall or high temperatures, for example (IFAD, 2011). As weather is expected to become more extreme and unpredictable, this instrument has great potential to channel finance towards vulnerable groups in tropical forest regions (Lloyds, 2013).

The largest entity offering index-based insurance is the Global Index Insurance Facility, a multi-donor trust fund. It covers 1.3 million farmers and pastoralists in 31 developing countries, with USD 148 million in sums insured. It is funded by the European Union, Japan and the Netherlands (GIIF, 2017).

Where are we today?

Weather insurance covered around 10% of weather-related losses in developing countries in the period 2010-2014. This is still far behind developed countries, where insurance covered more than 50% of losses. Nonetheless, it is becoming increasingly easy to offer insurance to farmers in developing countries (IFC, 2016).

Investors in large infrastructure projects in developing economies sometimes use political risk insurance in more volatile countries. These schemes pay out on defined events such as expropriation of assets or breach of government contracts. This is offered by various bodies including individual countries' export credit agencies (ECAs) and the Multilateral Investment

Guarantee Agency (MIGA), a branch of the World Bank. This may be an underused tool in encouraging sustainable land use. At present, only 5-10% of MIGA's portfolio is in the sectors of agriculture or forestry, according to Jill Crowther, Senior Environmental and Social Development Specialist at MIGA..

What are the barriers and opportunities?

For some foreign investors operating in riskier environments, political risk insurance may be a valuable instrument to make an investment viable. It could be offered at preferential rates to incentivise certain kinds of land use.

Weather insurance could also be offered at preferential rates as an incentive for sustainable agriculture (UNEP, 2016; ESG, 2016). In a new scheme run by AXA in Indonesia, index-based insurance is offered as an incentive to grow rice. It pays out when the weather passes certain parameters, such as rainfall levels above or below the annual average by a predefined amount. The premiums are 80% subsidised by the government (Jakarta Post, 07/06/16).

While the opportunities for farmers to access weather insurance have increased, knowledge is still a barrier. In many emerging economies, insurance is still seen as a luxury rather than a necessity (IFC, 2016). While understanding of climate change is becoming widespread among farmers, many do not fully recognise the benefits of insurance, particularly when they see traditional insurance schemes not paying out in particular circumstances. According to Fatou Assah, GIIF Program Manager, there is growing interest in index insurance because it works differently. It is a transparent and objective measure with a pre-agreed level (GIIF, per comms, 2017).

2.2 Partial credit guarantees

Credit guarantees are a type of credit enhancement. They move some part of the investment risk away from the investor. For example, smallholder farmers may be unable to get conventional loans as they have little collateral to offer. Credit guarantees are usually offered by a third party, which will underwrite loans, for example guaranteeing a proportion of a lender's losses will be repaid. By taking on some of the risk of lending, the third party enables these farmers to access finance (Zander et al, 2013).

Where are we today?

Credit guarantee schemes play a key role in helping small and medium sized enterprises access finance, particularly in developing economies, where these businesses may find it particularly difficult (EIB, 2014). A recent count found 2,250 different credit guarantee systems in almost 100 countries. These schemes are offered by many different institutions, including microfinance NGOs, development banks and more traditional commercial banks (Zander et al, 2013).

Credit guarantees have the potential to play a major role in supporting investment in conservation and sustainable land use (Credit Suisse, 2016). For USAID, guarantees for this type of investment have gone from practically nothing five years ago to guarantees on around USD 250 million investments today. USAID believes this is in line with growth in conservation investment and the need for risk mitigation to support early investment.

According to JP Gibbons, Development Credit Authority, USAID, the nature of USAID's work is also changing. In the past, the organisation supported national projects through local banks. As

impact investment has increased over the last decade, the agency has guaranteed more global-level projects involving investment funds and other multinational lenders. In these projects, the guarantee has an additional purpose: reassuring investors who may take an equity share in the fund, which in turn finances projects on the ground through loans (USAID, pers comms, 2017).

BOX 8: A credit guarantee in action

Since 1999, the US Agency for International Development (USAID) has provided more than 500 guarantees on debt totaling USD 4.8 billion through its Development Credit Authority. These guarantees underwrite 50% of any loss on investment. In the event of a partial or complete default, the US Treasury will pay half of principal loss, changing the risk profile for investors. USAID charges fees for this service.

In 2014, USAID agreed to guarantee USD 90.0 million of commercial loans that Althelia issued to a range of sustainable agriculture and REDD+ projects. The loans are partly repaid through the sale of commodities such as cocoa, coffee and timber. Money also comes from carbon credits sold on the voluntary market. With the USAID guarantee covering up to 50% of losses on the loan portfolio (USAID, 2014), it was easier for Althelia to secure equity investors in its fund.

What are the barriers and opportunities?

Partial credit guarantees are well suited to some of the challenges of supporting smallholder farmers on the agricultural frontier. In many cases, these farmers may lack official land titles, which can prevent them from accessing regular agricultural credit.

As with many other instruments, credit guarantee systems rely on substantial subsidies, at least to set up. In many cases they are reliant on overseas development assistance (ODA).

Many of the funds offering credit guarantees for sustainable land use remain small. Much larger guarantee schemes could help make borrowing for sustainable land use cheaper than the business-as-usual model.

2.3 Off-take agreements

Buyers may commit to 'off-take agreements', where they commit to buying future production. They can take many forms, for example, a promise to purchase a certain volume of production at a fixed price at a certain date in the future, or more involved arrangements where the buyer provides seeds, fertiliser and technical assistance as part of the agreement. Such commitments may help producers build a case for equity investment or loans.

While off-take agreements are not a financial instrument per se, they are included in this briefing as they are a useful tool for reducing risk, for producers (reducing the risk of selling produce), buyers (reducing the risk of lack of supply) and investors in these companies (by reducing the overall investment risk).

Where are we today?

Off-take agreements are commonplace for some agricultural commodities, including flowers, tea, tobacco, cotton, seed, dairy, poultry, rubber, palm oil and cocoa. Many of these products are well-suited to off-take agreements as they are perishable and have high upfront costs (Africa Investor, 2012).

BOX 9: Carbon credits and off-take agreements

Off-take agreements do not apply only to traditional commodities, such as timber or soy. They are also applied to carbon credits, effectively guaranteeing a flow of finance in exchange for protecting the forest. This is one source of revenue for the Althelia Climate Fund and the projects where it invests.

However, many projects face barriers in accessing this kind of carbon finance. The carbon market is still not well developed and in many cases has prohibitive transaction costs.

Larger agricultural producers find it easier to make off-take agreements with buyers. However, in some cases, smallholders can participate in off-take agreements by selling to a larger producer, which in turn has an off-take agreement with a larger company or by aggregating production through a producer cooperative or association.

Some organisations have also explored the potential for off-take agreements for reductions in carbon emissions (see Box 8).

What are the barriers and opportunities?

Off-take agreements have the potential to promote sustainable land use, according to Melissa Miners of Unilever, speaking at REDDX in Oslo. However, this depends largely on purchasing companies being able to assess where sustainable production is taking place, she said.

Producer certification schemes may help overcome this opacity, helping producers engage a wider spectrum of customers. They can also help companies access markets, as is the case with forestry companies selling FSC-certified timber into the European Union. However, some benefits, such as the price premium for certified goods, have been overstated in the past (Szalai et al, 2013). In reality, many producers find the certification process too expensive.

Certifying all produce from a 'jurisdiction' such as a sub-national region may be one way of overcoming this. By working with the regional or local government, certification organisations such as the Roundtable on Sustainable Palm Oil (RSPO) aim to balance many competing demands on the landscape (RSPO, 2016). Central Kalimantan in Indonesia and Sabah in Borneo are two states that have pioneered the so-called 'jurisdictional approach' (RSPO, 2015). Similar models have been considered for various commodities such as soy, beef and sugar (Arif, 2015).

Other supply chain-based initiatives may also be useful, including the jurisdictional schemes described above. Another potential solution is the kind of blanket agreement signed by the Norwegian food and feed companies (see Box 9).

BOX 10: Buying sustainable soy

Five major Norwegian feed and food companies committed to only buying deforestation-free, certified soy. Norway imports only 0.35% of total world soy production, but buys 17% of all sustainably produced soy (Brubakk, 2015).

For any of these companies to import soy, production must meet a series of environmental and social criteria including certification under a reputable standard such as ProTerra (see NHO, 2015).

Discussion

Combining instruments into a financial mechanism

There is currently growing interest in ‘innovative financial mechanisms’ which can promote sustainability (e.g. see GGGI, 2016). While individual instruments may not be exactly innovative in their design – in fact, they may be commonplace – innovation can come in combining these instruments to create the package of incentives needed to drive sustainable land use (see Box 10 on the San Martín financial mechanism).

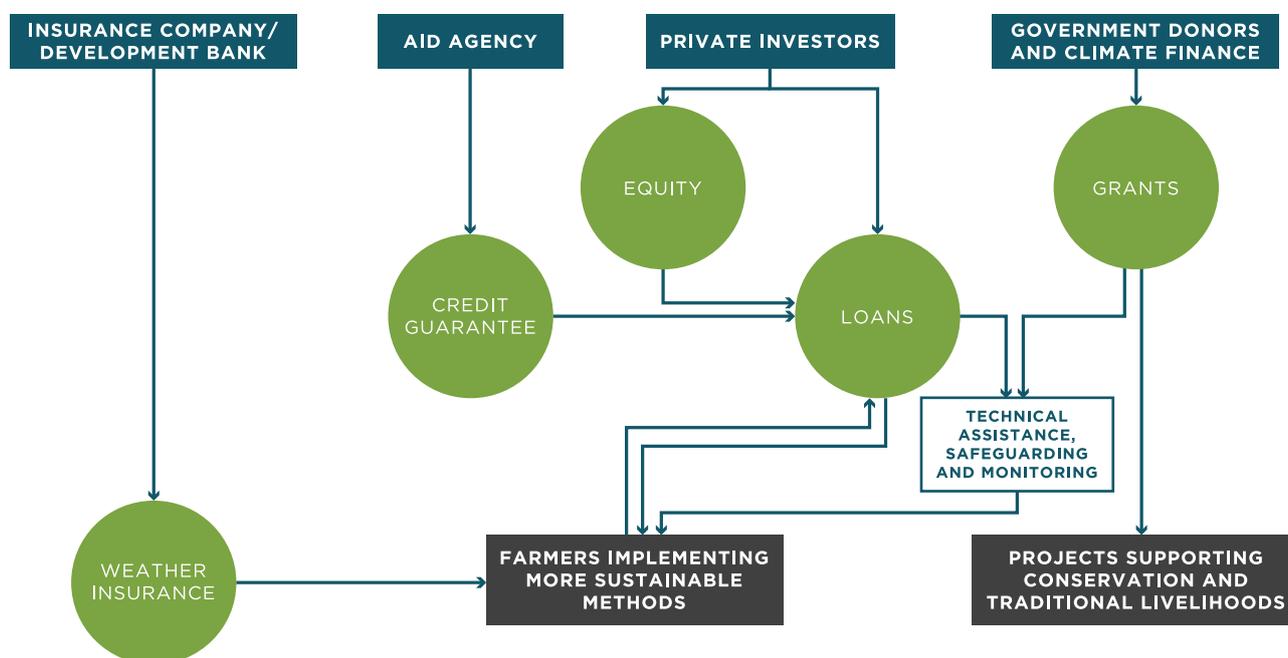


Figure 2: A possible financial mechanism

In San Martín, Peru, the Unlocking Forest Finance team has worked to build a portfolio of investments in sustainable land use. It will start a small pilot phase in 2017. If the project is implemented on a larger scale, Figure 2 shows how an eventual financial mechanism could fit together.

In the proposed structure, farmers working in seven supply chains receive loans to help them farm more sustainably. This money comes from a variety of public bodies and private investors. Some private investors may lend money directly (in the case of local agricultural bank Agrobanco) while others may make equity investments in a fund, which then offers loans to farmers. Non-profit making activities such as conservation or technical assistance are likely to be funded through grants.

As it develops, the project could link to a credit guarantee scheme offered by an international development agency, reducing the risk attached to the loans. This could make lending more attractive to private investors and potentially cut interest rates. In addition, weather insurance could be bundled into the package, further reducing risks.

Finance alone cannot end deforestation

If the instruments, tools and ideas described in this briefing are to shift the existing flows of money towards more sustainable ways of farming and using the land, they need to create the necessary incentives, offering cheaper credit, higher returns or less risky investments than business-as-usual projects. This requires political will. For these instruments to work effectively, they will need to be supported with public policies, and in many cases, public funding.

Moreover, success will depend on good governance. Between 2000 and 2012, almost half of all tropical deforestation worldwide was due to the illegal conversion of land for agriculture (Lawson, 2014). Financial instruments can address some of these issues, for example restricting credit to farmers complying with the law. However, such efforts will also need strong laws which are enforced. This includes laws to secure land tenure, penalise illegal deforestation and streamline government services.

...but financial instruments can create the right incentives

The examples in this briefing are just a few of the financial instruments that exist. There are many others. Nonetheless, this brief overview demonstrates that there are many tools available for governments and investors to incentivise sustainable land use, each appropriate for different circumstances. There is no doubt that these instruments can work. In many cases, these are the same tools that have been used to develop current industries, including agriculture and renewable energy. It remains to be seen whether they will be used effectively to address the pressing challenges of food security, climate change and deforestation.

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