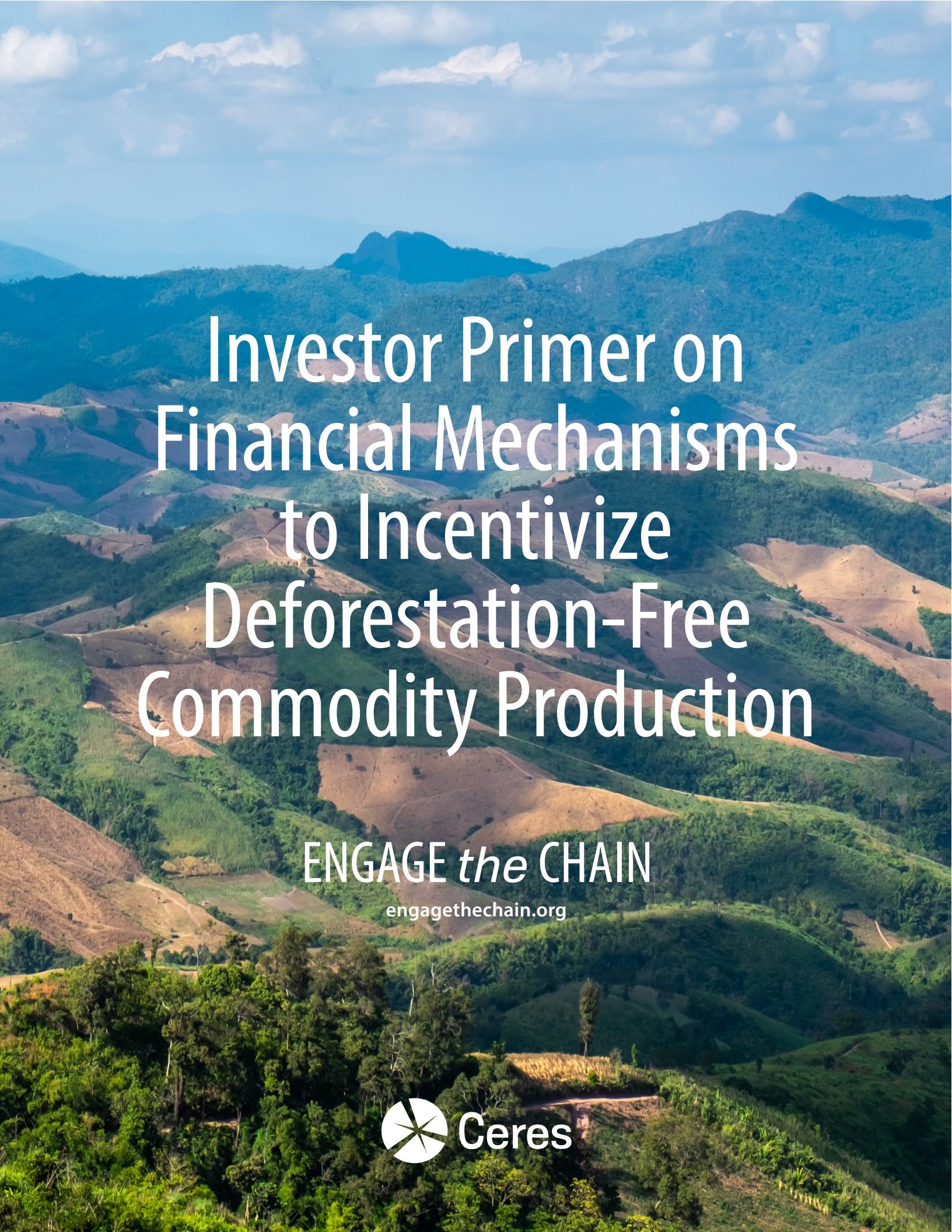

# Investor Primer on Financial Mechanisms to Incentivize Deforestation-Free Commodity Production

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# INTRODUCTION

Over the past decade, nearly 500 companies have set commitments to eliminate deforestation from their agricultural supply chains as part of their larger climate goals to reduce risk and improve their reputation among consumers and investors. These company commitments come from actors across the supply chain, from commodity traders to consumer goods manufacturers.

Yet, while corporate demand for deforestation-free products is growing and investors are increasingly calling for accelerated action on stopping deforestation, the rates of agricultural expansion continue to grow. Since 2014, when leaders from across the globe signed onto the New York Declaration on Forests, tropical primary forest loss has increased by 44%. So long as deforestation continues to seep into commodity markets, companies will face a wide array of risks associated with deforestation and its role as a driver of climate change.

The barriers to shifting agricultural supply chains to deforestation-free production are complex. Financial necessity often forces producers to expand into forests. Alternative means of increasing income, such as improving yield, restoring degraded land, and incorporating new agricultural practices, require upfront investment that some commodity producers often simply cannot finance. Historically, companies that source agricultural commodities have limited their role in financing producers to offering basic input financing, payments, and price premiums. Investors, meanwhile, have identified few opportunities to scale sustainable practices because of the perceived risks in the startup financing cycle. Government regulation and concessional finance have been inconsistent in motivating the protection and maintenance of natural ecosystems.

It is clear that inaction fuels the problem of deforestation, while symbolic sustainability efforts elicits consumer concerns about greenwashing. To break through this stalemate, some companies, governments, and investors have piloted the use of innovative partnerships and financial mechanisms to incentivize deforestation-free commodity production.

This Investor Primer builds upon Ceres' research that explored the strengths and weaknesses of a wide range of incentive mechanisms in the context of Brazilian and West African cocoa supply chains, Indonesian palm oil supply chains, and the Brazilian soy and beef supply chains. Since corporate disclosure on the full scope and effectiveness of incentive programs is limited, the Investor Primer outlines questions to ask companies during dialogues to assess the value of the incentive mechanisms in relation to the company's overarching no-deforestation goals. Faced with growing pressure to demonstrate concrete progress, supplier engagement must catalyze positive impacts to avoid reputation risk.

Readers wishing to build background knowledge on risks and challenges in each commodity supply chain can visit Ceres' Engage the Chain website.

# QUESTIONS TO ASK COMPANIES ON FINANCIAL INCENTIVE MECHANISMS

## 1. DOES THE COMPANY USE INCENTIVE MECHANISMS TO SUPPORT PRODUCERS IN TRANSITIONING TO SUSTAINABLE PRACTICES?

Companies play an important role in setting supplier expectations and driving demand for deforestation-free products. Without purposeful corporate strategies, agricultural expansion into forest lands will be driven by the marginal economics of commodity production. To properly support producers on the ground in meeting a company's deforestation- and conversion- free standards, companies should use both **carrots and sticks** to drive change. Excluding or removing non-compliant suppliers from the supply chain can be the **stick**. For more information on how companies can use non-compliance protocols to hold producers accountable, see Ceres' Investor Primer on Non-Compliance Protocols: Ending Deforestation at the Source. Developing incentive structures that support producers in overcoming the financial and technical barriers to transitioning to more sustainable practices can function as the **carrot**. Taken together, these approaches protect against future noncompliance and ensure a quick resolution of existing grievances by giving producers the support needed to adopt sustainable practices, limiting a company's exposure to reputation risk and reducing potential supply chain disruptions.

Leading companies from across the value chain are experimenting with innovative partnership models and financial mechanisms to support the transition to sustainable practices. In some cases, blended finance vehicles, which bring together development banks, impact investors and private sector actors, offer ways to increase the capital available or reduce the associated risk. While many of the issues facing producers are financial, other approaches can complement these financial instruments, such as technical assistance or crop finance to enable land restoration or maximize production on existing land.

### RELEVANT FOLLOW-UP QUESTIONS

- How much capital, risk exposure, market power, and R&D is the company contributing to ensure the program's success?

## 2. HAS THE COMPANY CONDUCTED A CONTEXT ASSESSMENT?

Many factors can influence a producer's ability to benefit from an incentive mechanism, and, in turn, the effectiveness the program ultimately has in supporting specific social and environmental outcomes. For this reason, companies need to perform a context assessment to avoid poorly planned incentive mechanisms and inefficient corporate spending. With a clear understanding of the factors that influence producers' business decisions and operations, companies are able to provide the right mix of financing and technical support to catalyze the desired sustainability goals and avoid adverse outcomes, such as rebound effects. Effective incentive programs should consider the following environmental, social, and regulatory factors:

**Environmental**

**Environmental conditions** Climate change has influenced the viability of many agricultural regions. Farmers experiencing waning yield may resort to expanding their agricultural land to maintain their productivity. These producers are most likely to benefit from financing and training that supports sustainable intensification as an alternative to increasing yield by expanding agricultural land.

**Social**

**Technical knowledge** Farmers with a clear understanding of the link of the gains from advanced sustainability practices may be more inclined to participate in sustainability programs. Producers with limited technical background may require technical assistance in order to meet program requirements.

**Socioeconomic status** Poverty can erode the long-term potential of technical training; producers may be pushed to expand their agricultural lands in order to earn a living wage. Financial assistance needs to be at a level to make a meaningful difference to actors at all socio-economic levels.

**Land ownership** Proper documentation of land ownership is critical to ensuring incentives are targeted towards producers who have legal rights to use the land for agricultural production.

**Regulatory**

**Regional regulatory requirements** National and subnational policies may regulate agricultural practices, such as how much native vegetation a farmer may convert to agricultural lands. Areas with looser regulation may require greater financial incentives to offset the perceived opportunity cost for not expanding. If limited resources are available, incentives could be targeted to "agricultural frontier" areas with the highest likelihood of crop expansion into forest.

**Available financial products** In regions where commodity producers can access low-interest loans from private or state banks, companies may struggle to incentivize producer behavior change using financial mechanisms that are tied to stringent sustainability practices.

There are a number of tools and practices that can be used to develop effective incentive programs. For example, Global Forest Watch, Agroideal, and The Nature Conservancy's new Environmental Framework all provide spatial models that companies or contracted third-party auditors can use to assess the environmental context for producers. Data on producer's social, political, and economic circumstances can be determined using national census data and farmer surveys. In cases where limited resources are available, context assessments can also help companies to strategically target producers who would benefit from incentive programs. Ultimately, companies that engage with their producers via supplier incentive programs are better positioned to facilitate long-term improvement in sustainability performance, reducing reputation risk, and preventing supply chain disruptions.

## RELEVANT FOLLOW-UP QUESTIONS

- Has the company secured partnerships or support from actors both within and beyond the supply chain to effectively implement the program?
- Does the company have a time-bound goal to provide support for all their suppliers?

## CASE STUDY

### Adapting Incentives to Socioeconomic Context in Cocoa Supply Chains

**Complex contexts require strategic plans to confront a variety of social and environmental challenges.**

Barry Callebaut's Forever Chocolate plan is an effort to support farmers, protect children against forced labor, and ensure forest positive cocoa production. As part of this initiative, the company's multiyear strategies seek to sustainably intensify production with quality cocoa seedlings and fertilizers, provide farmers with alternative ways to generate income, and hold relevant farmer training. The company notes that the success of its efforts is underpinned by having "a proper understanding of the structural challenges facing cocoa farmers."

**Explanation**

Barry Callebaut's supplier incentive program takes a holistic approach to tackling the social and environmental factors within the cocoa supply chain by developing a multipronged approach for improving social outcomes from farmers and incentivizing sustainable cocoa production. This process, which first requires a survey and mapping of suppliers, helps the company ensure that producers are receiving the right type of assistance for their needs.

**Potential Areas of Improvement**

Barry Callebaut reports there are over 500,000 cocoa farmers contributing to their supply chain. While the progress has been made in mapping and understanding the context for over 176,000 of these suppliers, only 16,000 have adopted the Farmer Business Plans which operationalize the program. Assistance needs to be increased to scale the project.

## 3. DOES THE COMPANY ASSIGN SPECIFIC CRITERIA TO DETERMINE WHICH SUPPLIERS ARE ELIGIBLE TO RECEIVE THE INCENTIVE MECHANISM?

Financial mechanisms aimed at deforestation-free production should have clear environmental criteria. Programs that do not explicitly state the required criteria open the company up to reputation risk from accusations of greenwashing. By conducting initial assessments and monitoring suppliers against environmental criteria, companies can avoid the reputational risk of financing non-compliant suppliers and protect against unintended rebound effects, such as producers using increased profitability to expand their operations into forested areas.

In some cases, the environmental criteria linked to a financial incentive may be established and audited by a third party, such as the Roundtable on Sustainable Palm Oil certified palm oil standard that provides a premium to producers. When this is not the case, environmental criteria should at a minimum (1) require that producers comply with all relevant laws and regulations regarding land use, land title, and labor in the country of production and (2) establish a reference date after which deforestation or land conversion is not permitted. Beyond this, the company should establish additional criteria for program qualification that are aligned with internal policies, such as deforestation- and conversion- free policies. This ensures that the incentive program and the company's overall corporate goals are aligned.

### CASE STUDY

#### Working with Soy Producers in Challenging Regions

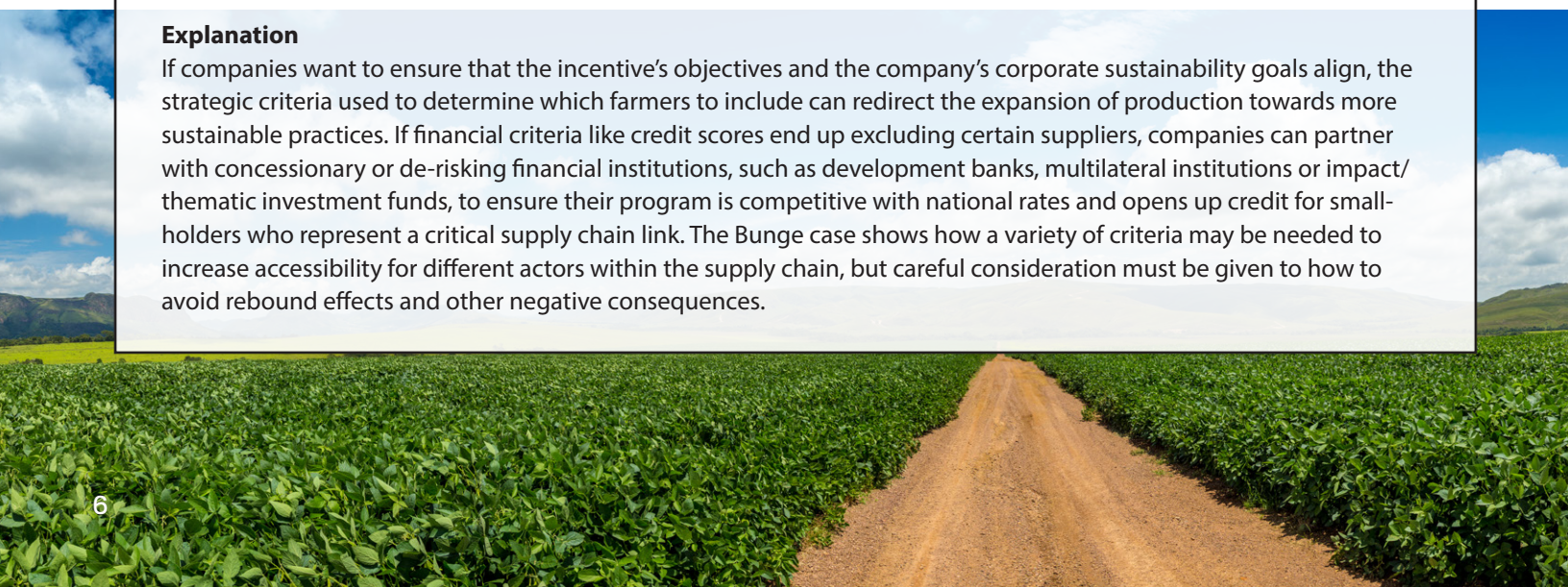
**Ensuring rigorous environmental requirements while still making financial mechanisms attractive can be a balancing act.**

In 2019, Louis Dreyfus Company (LDC) established a long-term preferential finance line to encourage soy producers to maintain their compliance with the company's Soy Sustainability Policy. As part of the initiative, LDC established a set of social, environmental, and economic criteria producers need to maintain to be considered eligible for the financing. The criteria, for instance, require producers to demonstrate that they were legal owners of their land and that the land did not overlap with protected areas and indigenous lands, that they were not on the official list of employers using slave labor, and that they committed to not convert native vegetation across their properties in the future. However, not all farmers were able to access the program due to criteria about their credit scores or land tenure.

To address a similar challenge, Bunge launched a credit line in partnership with The Nature Conservancy and Santander Bank in 2018 to increase producers' interest in restoring degraded pastureland for soy cultivation in the Cerrado, a region under increasing pressure from agricultural expansion, as opposed to clearing native habitats. During the consultation process to develop the program, however, stakeholders indicated that applying zero-deforestation and conversion criteria to all the properties that the borrowers owned would be challenging. The partners came up with a pragmatic alternative approach that split environmental requirements into those that would apply to the financed property and others that would apply to all. Still, preference was given to farmers who fully complied with requirements in all their properties.

**Explanation**

If companies want to ensure that the incentive's objectives and the company's corporate sustainability goals align, the strategic criteria used to determine which farmers to include can redirect the expansion of production towards more sustainable practices. If financial criteria like credit scores end up excluding certain suppliers, companies can partner with concessionary or de-risking financial institutions, such as development banks, multilateral institutions or impact/thematic investment funds, to ensure their program is competitive with national rates and opens up credit for smallholders who represent a critical supply chain link. The Bunge case shows how a variety of criteria may be needed to increase accessibility for different actors within the supply chain, but careful consideration must be given to how to avoid rebound effects and other negative consequences.



## 4. DOES THE COMPANY ENGAGE WITH THE SMALLHOLDERS IN THE SUPPLY CHAIN?

While the particular definition of "small" varies by commodity and geography, small-scale farmers comprise a large part of agricultural supply chains. Small ranchers with fewer than 200 hectares of land manage approximately 40% of the Brazilian herd, small-scale producers grow 40% of Indonesian palm oil on plantations that average 2.5 hectares each, and almost all of the cocoa originating from West Africa is grown by farmers with 3 to 4 hectares of land each.

The technical and financial challenges that smallholders face are disproportionate to their size. Due to a lack of collateral, low productivity, and insecure land tenure, investment in smallholder operations is considered risky. For this reason, they have limited access to commercial or concessional funding and must self-finance their operations. In a context where current production fails to meet living wages, these farmers often increase their yield, and their income, by expanding their agricultural land into forests.

Because of the influential role smallholders play in commodity supply chains, companies should ensure that their programs reach this key group of producers. Without doing so, it is likely that deforestation will seep into their supply chain and expose the company to reputation risk. This often requires improving traceability, especially for mid and downstream companies. To be effective, companies should maintain traceability to origin or at least to the *point of control,* such as traders, to ensure that they can target incentives to smallholders who could benefit from these programs. Once traceability is established, downstream companies can mitigate risks by engaging their direct suppliers and middlemen to facilitate the flow of incentives to smallholders and indirect suppliers.

## RELEVANT FOLLOW-UP QUESTIONS

- Can this mechanism be scaled? What markets can contribute additional investment capital?

## CASE STUDY

### Sustainability Programs within the Palm Oil Supply Chain

**Comparing two palm oil supplier schemes demonstrates how incentives that aim to stop deforestation may have different outcomes depending on how they are tailored to different actors in the supply chain. Incentives can be developed to complement existing market programs.**

The Roundtable on Sustainable Palm Oil (RSPO) is the most commonly used voluntary certification standard for responsible palm oil production. Participating palm oil producers must adhere to RSPO's Principles & Criteria (P&C), which, as of 2019, includes criteria restricting deforestation and peatland development in High Conservation Value (HCV) area and High Carbon Stock (HCS) forests. RSPO certification serves as a vehicle for financial incentives for sustainable palm oil production with financial premia flowing to producers for RSPO certificates sold. However, the premium is not a set price. Instead, the price paid for certified palm oil is negotiated between buyers and sellers and is set by the market. With certified supply surpassing demand, producers cannot always sell their product into the palm oil market for a higher rate, thus making it uncertain whether the producer will recover the cost of certification.

Building upon this effort, the International Finance Corporation (IFC) of the World Bank initiated a strategy that targets the challenges faced by independent smallholders. Musim Mas, a major palm oil producer, decided to adopt and fund one of the IFC programs, called Indonesia Palm Oil Development for Smallholders (IPODS), to integrate smallholders into sustainable palm oil supply chains. The program supports smallholders with financial and technical assistance to become RSPO certified and helps them link to new financial markets. In addition to financial literacy training, Musim Mas also acts as a guarantor in some cases, providing access to low-interest loans (approximately 6%) in comparison to other non-collateralized loans (which can oscillate between 20% and 25%). Loan repayment was dependent on the smallholders' production profit, protecting them from unattainable payment plans.

**Explanation**

While the clear environmental criteria and assessment methodologies promote compliance with deforestation-free practices, smallholders and other producers may find the certification's opportunity costs and price fluctuations prohibitive. The Musim Mas program demonstrates how companies can facilitate smallholder access by providing complementary services relevant to smallholder needs.

## 5. DOES THE COMPANY MONITOR AND EVALUATE THE EFFECTIVENESS OF THE INCENTIVE MECHANISM?

Incentive mechanisms require purposeful oversight, monitoring, and evaluation over the course of the program. Without this, the company risks investing in a program that may not be effective at reaching its end goals or, worse, that exacerbates the environmental and social issues on the ground. Companies can reduce these risks by (1) performing continuous monitoring to ensure compliance with program criteria and (2) conducting periodic evaluations of a program's impact.

Companies should actively manage their incentive mechanisms to ensure the producer receiving the assistance is continuing to adhere to the environmental criteria or is demonstrating improvement along whatever metrics the company established. Monitoring may include farm audits by technicians, a regular review of producers' policy, and third-party assessment using tools such as remote sensing.

Ideally, companies should also perform periodic evaluations or refer to external evaluations to determine if their investments are having the intended higher level impact, for example, if they prevented the conversion of forests within their supply basin or increased producer productivity or income. Companies should consider evaluating whether their programs are having any negative externalities, such as agricultural "leakage" into neighboring regions and producer rebound effects, so that they can ward against potential reputation risk. Companies may also consider evaluating whether the funds and assistance given to producers are economical and efficient in delivering the intended results, in case there was a proven method that could more effectively scale the desired result at a lower cost.

## RELEVANT FOLLOW-UP QUESTIONS

- Who is responsible for collecting and evaluating the data to ensure supplier compliance?
- Who is responsible for ensuring the success of the mechanism?
- Does the company disclose progress on the reach and impact its incentives mechanisms have had?

## CASE STUDY

**Ensuring program effectiveness in beef supply chains.**

**Incentive mechanisms can benefit from monitoring to ensure the resources being contributed are reaching the desired stakeholders and effective at catalyzing desired social outcomes and avoiding unintended consequences.**

The Sustainable Production of Calves Program, a partnership between The Sustainable Trade Initiative (IDH) and major retailer Carrefour, aims to expand the supply of sustainable beef by helping farmers intensify their livestock operations through sustainable agricultural practices, restoration of degraded pastureland, and compliance with the Brazilian Forest Code. The program provides a combination of technical support, training, and credit to 457 calf breeders in the Juruena and Araguaia regions of Brazil.

Because strict prerequisites would be prohibitive for many producers in the target regions, the parties did not require initial environmental criteria. However, the project aims to make participating calf producers compliant with legal requirements and corporate sustainability standards, such as no deforestation or illegal work practices. To monitor and verify progress, calves bred on participating farms are tagged to indicate their origin, enabling traceability for indirect suppliers. Companies participating in the initiative also use their own systems to monitor direct and indirect suppliers. Carrefour employs a satellite georeferencing platform to identify noncompliance against the Group's procurement criteria and to suspend suppliers accordingly.

**Explanation**

Given the prominence of indirect suppliers in Brazilian livestock supply chains, monitoring for compliance with sustainability standards remains one of the critical challenges to overcome. By directly supporting calf breeders, the Sustainable Production of Calves Program not only trained suppliers but also facilitated a direct link to the beginning of the supply chain, thus facilitating monitoring throughout the rest supply chain.

**Potential Areas for Improvement**

Monitoring efforts are focused on ensuring compliance with the program's expectations as opposed to also confirming the impact of the technical support and training. Furthermore, according to the program's partner organizations, it is assumed that producers who take part in the program will be able to access new markets and financial sources, thus increasing their income without expanding their livestock production area into existing forests. However, should this assumption be incorrect, the results could result in negative consequences, such as the loss of productivity or even livestock producers using their improved income to expand into nearby forest. The program would benefit from expanding monitoring efforts beyond planned positive outcomes to include logical and concerning externalities.

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## DISCLAIMER



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