

Mobilizing climate finance towards agricultural adaptation and nature-based solutions

Executive summary

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Commercial Agriculture for Smallholders and Agribusiness

CASA aims to drive global investment for inclusive climate-resilient agri-food systems that increase smallholder incomes. The programme makes the case for increased agribusiness investment by demonstrating the commercial and development potential of sourcing models involving empowered smallholder producers and by tackling the information and evidence gaps holding back investment.

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Executive summary

The Commercial Agriculture for Smallholders and Agribusiness ([CASA](#)) Programme aims to drive global investment towards inclusive climate-resilient agri-food systems that increase smallholder incomes. CASA's research component has recently identified the challenges faced in mobilizing climate finance in agriculture, and particularly in climate adaptation, as well as the existence of a funding gap for small and medium-sized agriculture enterprises (agri-SMEs) of around \$106 billion (ISF Advisors, 2022).

Of particular concern is the **minimal funding that would be needed to help smallholder farmers adapt to the challenge of climate change and increase their resilience.**

Adaptation for smallholder farmers might include investment in drought-resistant seeds, technologies and practices that enable climate-smart agriculture, investment in improved water management, and investment in improved management of food waste, including facilities for storage of crops.

Smallholder farmers may also benefit from interventions that protect the natural environment on which they depend (e.g. interventions relating to water supplies, soil quality or soil stabilization), or from activities that augment their incomes through payments for the protection of natural capital. Investment in these nature-based solutions (NbS) can potentially contribute to capital flows to smallholder farmers, even though they are often primarily designed to deliver carbon sequestration benefits to companies or investors seeking a 'net zero' position.

This report seeks to answer the following questions, which were explored through interviews with key sectoral stakeholders (principally in Asia):

- What types of investments in agricultural adaptation and NbS are being made by different categories of investors?
- What are the barriers to investment in climate adaptation in agriculture and in NbS?
- What opportunities are emerging for these types of investment?
- What partnerships are required to help drive capital towards these areas of investment?
- What evidence is needed to drive capital towards these areas of investment?

The findings from the first round of interviews with investors, investment support stakeholders, and food and beverage multinationals confirmed that **very limited funding is currently flowing to climate adaptation, compared to mitigation, from commercial investors and multinational companies; and even less is flowing to agricultural adaptation.** The main reasons for this are as follows:

- multinational **food and beverage companies do not often respond to the risks that climate change poses to their supply chains, as they can shift their sourcing across geographies** to cope with climate-related risks
- **it is difficult to identify a short-term business case for investment in climate adaptation** as the results are only seen over a long timeframe
- **commercial investors can avoid risk by not engaging with the agricultural sector or by investing in alternative geographies** where agricultural production might be less affected by climate change
- commercial investors have **limited understanding of what NbS are**, the benefits of investing in them and how to evaluate the impact of those investments
- **there is a limited pipeline of investable opportunities in adaptation and NbS** even for impact investors

The findings from the first round of interviews show that, despite the urgent need for an increased focus on investment in both adaptation for smallholder farmers and protection of nature and biodiversity, activities to date have been very weak and need to be accelerated.

The table below indicates where evidence might help to shift these constraints.

Table 1: Evidence needs by investor type

Food and beverage multinationals	Commercial investors	Impact investors
Evidence that adaptation is about improving the resilience of their supply chain and not just about creating a public good.	A clearer definition of adaptation highlighting that much investment in adaptation is necessary to avoid and minimize loss, rather than to seek returns.	Examples of the catalytic role that patient impact investors can play in regard to enabling farmers to shift to small-scale agroforestry or adopt other adaptation measures with a long timeframe for payback.
A macroeconomic view of how food systems will have to evolve and companies adapt as the effects of climate change increase: this requires a geospatial view, overlaid with an assessment of vulnerability and trade.	Evidence on the impact of climate change on agriculture production and the effect on the broader economy, making the case for banks to get involved in the agriculture sector as a way to protect the rest of their investment portfolio (including government bonds).	Better evidence on where NbS have delivered material change for farmers, where premiums for regenerative farming have delivered income uplift for farmers, and where forestry carbon credits can deliver adaptation co-benefits for vulnerable communities.

The study further explored how these barriers to investment play out in three specific countries affected by climate change, which are covered in the report in the form of case studies. Pakistan was selected as representative of countries with a high climate risk vulnerability and a current government response that is of a low quality. Vietnam and Indonesia were selected as representative of countries with less vulnerability and better readiness plans on the part of the government, which could potentially position them as more investable for capital providers aiming to invest in climate adaptation and NbS.

Table 2: Findings on the enabling environment from the country deep dives

Vulnerability, lack of readiness and poor governance offer low risk/reward levels for investors	<ul style="list-style-type: none"> Vulnerability to climate shocks and stresses is correlated with poor governance in many countries, and the quality of governance further affects a country's level of response or readiness, compounding the risk for investors.
National Action Plans (NAPs) on adaptation do not engage investors	<ul style="list-style-type: none"> A country's NAP on climate adaptation appears to have limited direct influence on investors, unlike NAPs on climate mitigation.
Availability of adaptation finance varies according to the nature of the supply chain	<ul style="list-style-type: none"> Some multinational companies (MNCs) in export-led value chains have implemented adaptation measures for smallholder farmers, partly as a form of corporate social responsibility (CSR), partly to improve the resilience of supply chains, and partly to persuade farmers to continue growing crops. (On the other hand, many MNCs have instead shifted to sourcing from other countries.)

	<ul style="list-style-type: none"> • Where domestic companies have implemented adaptation measures for smallholder farmers, these are often driven by funding from multilateral development banks and development finance institutions (DFIs). • Domestic companies in some sectors (for example, in textiles manufacturing using local cotton) have sought to improve the resilience of their domestic supply chain through supporting smallholder farmers with purchasing drought-resistant seeds and helping them to grow more resilient crops, as there is a logistical and forex benefit in having a local source of supply. • Private finance for adaptation is largely unavailable directly for farms and farmers selling their product to local markets.
<p>Opportunities for adaptation finance vary according to the structure of the financial market</p>	<ul style="list-style-type: none"> • Commercial banks currently play no active role in financing smallholder agriculture, even when mandated to extend agriculture finance. • Domestic commercial banks – providing standard banking services to large local agricultural processing companies with local supply chains in the same country – may be playing an indirect and unwitting role in adaptation through providing corporate loans. • Impact investors are playing an important role in supporting climate-smart agriculture, but commercial investors are not yet engaging on this. • Where microfinance institutions are supported by appropriate regulations (for example, relating to ownership and loan sizes), they are enabling smallholder farmers to access finance that increases their resilience. • Green bonds can potentially play a role in raising finance for adaptation but the overwhelming focus for bond issuers and buyers is on climate mitigation.
<p>The war in Ukraine is exacerbating the adaptation challenges for smallholder farmers</p>	<ul style="list-style-type: none"> • Increased fertilizer prices and reduced availability of fertilizer is making inputs unaffordable for smallholders. • The increase in the cost of imported food supplies (particularly wheat) and reduced availability are creating additional pressures on cash flows of smallholder farmers. • Displaced production (such as increased demand for palm oil as a result of reduced availability of sunflower oil from Russia and Ukraine), and diversion of crops (maize, sugar and vegetable oils) to biofuels as a result of higher fossil fuel prices is beginning to affect land use and is destabilizing existing supply chains for smallholder farmers.

As stated above, the report contains case studies from Pakistan, Vietnam and Indonesia. Interviews with companies domiciled in these countries provided greater context and more insight.

Table 3: Findings by investor type from the country deep dives

Food, beverage and commodity companies	Commercial investors	Impact investors
Some MNCs are investing in making their supply chains more resilient but they often see their supply chains as fungible and are more likely to shift their sourcing to alternative geographies, rather than help existing suppliers to adapt.	Commercial investors see agricultural adaptation and NbS as high-risk areas that are outside their scope and they do not perceive a risk to their own interests. Very limited commercial capital is flowing to smallholder farming for domestic consumption, ignoring the potential wider financial and economic risks associated with the failure of these activities.	Impact investors and investment support stakeholders are playing a catalytic role in both adaptation and NbS and need assurance on the impact they are having.
Domestic companies that are involved in food processing and textiles that are based in countries suffering from climate shocks are more invested in identifying (either alone or in collaboration with other companies in the country) adaptation measures to support their suppliers in-country and to work with them – for example, on climate-resilient crop varieties.	Commercial lenders provide standard banking services, including corporate loans, to large domestic companies, which may be actively supporting the resilience of smallholder farmers in their supply chains. Corporate clients’ support for small farmer adaptation can potentially reduce the credit risk for commercial banks if it leads to more reliable and lower-cost inputs.	Impact investors tend not to focus on the role of large domestic companies in supporting adaptation through increasing the resilience of smallholder farmers but this is an area they should explore more actively.

The main recommendations emerging from this research to incentivize the flow of agricultural investments into climate adaptation are the following:

- **Build a short- to medium-term business case for national or regional commercial investors** to incentivize investment in climate adaptation.
- **National and regional agricultural companies should communicate with the banks** that provide them with corporate loans, **to increase awareness of the benefits of investing in climate adaptation practices and climate-smart agriculture technologies** for reduced credit risk and more resilient profits.
- **Improve the quality of impact measurements by developing better definitions and standard measurement approaches**, which will help better engage with impact investors.
- **Increase the engagement with governments to establish appropriate subsidy schemes and to introduce regulations** for production that support the establishment of adaptation and NbS in key agricultural value chains.

Combining finance with information and evidence generation will be crucial to increase the understanding and engagement of the private sector, leading to internalizing what are generally seen to be public goods.



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