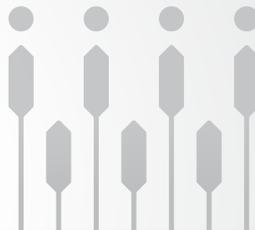


changing farming for  
a changing climate

**Adam Smith  
International**



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## INFORMATION BRIEF:

# Agribusiness Responses to Climate Risks:

## Implications for Improving Smallholder Resilience

This information brief highlights key findings in the Vuna report “Agribusiness Responses to Climate Risks: Implications for Improving Smallholder Resilience” (December 2016) by John Morris.



## Key Points

- The growth of smallholder agriculture in Eastern and Southern African (ESA) is being driven by the expansion of commercial markets. These markets need to account for evolving climate risks.
- Agribusinesses are responding to climate risks in a number of ways—including the adoption of improved seeds and better water management—on farms that they own.
- Agribusinesses are far less likely to invest in helping the smallholder farmers in their supply chains to take similar CSA measures, largely because of the risk of side-selling.
- Instead, these agribusinesses tend to respond to climate risks by adjusting their catchment zones and diversifying their sources of raw material supply or products.

- Public funding is needed to reinforce private investments in building value chains that help smallholders become more climate-resilient.

## Introduction

Climate risks—especially rainfall variability—are profoundly affecting the agricultural sector in Eastern and Southern Africa (IPCC, 2014a; IPCC, 2014b). Small-scale farmers face yield reductions, food insecurity, price volatility, and reduced incentives to expand their production of high-value commercial crops (Oxfam, 2016).

This study examines whether agribusiness firms are helping to improve the climate resilience of the smallholder farmers with whom they work. The study reviews the relevant literature and carried out a field survey in three countries with relatively larger agribusiness sectors: Tanzania, Zambia, and Zimbabwe. This included

interviewing 13 agribusinesses operating in relatively dry regions where climate risks are already significant, focusing on cotton, sunflower, and pulse-based value chains.

This was complemented by a sample of five agribusinesses located in higher-rainfall zones where rising temperatures threaten two higher-value crops, coffee and tea.

The goal was to determine whether agribusinesses can play a role in improving the climate resilience of smallholder farmers in their supply chains.

## Factors impacting agribusiness investments in smallholder farmers

The study framed its analysis according to five hypotheses on the role of agribusinesses in improving the climate resilience of smallholder farmers. Results are presented in Table 1.

**Table 1:** Agribusiness survey findings

Study hypothesis	Study result
<p><b>Hypothesis 1:</b> Agribusinesses commonly view climate risks as less important than the many non-climate risks that they need to contend with in Eastern and Southern Africa.</p>	<p>Not substantiated: Firms consider climate to pose a major risk. It is important to note, however, that they are also concerned about risks including government intervention, international prices, irrigation infrastructure, and access to finance.</p>
<p><b>Hypothesis 2:</b> Agribusinesses do not invest in smallholders if they are not sure that they will realise the benefits of such investments.</p>	<p>Substantiated: Firms view side-selling as a risk to these investments.</p>
<p><b>Hypothesis 3:</b> Agribusinesses primarily respond to production shortfalls by adjusting their business and trade strategies as opposed to investing significantly in small-scale farmers.</p>	<p>Substantiated: Firms are not pursuing the climate resilience of smallholders as part of their core business strategies.</p>
<p><b>Hypothesis 4:</b> When faced with climate risks such as drought, agribusinesses that own farms may make adjustments to their crop management strategies rather than investing significantly in outgrowers.</p>	<p>Substantiated: A number of firms expressed the need for donor support in investing in irrigation and new seed varieties in order to improve the resilience of outgrowers.</p>
<p><b>Hypothesis 5:</b> Most agribusinesses are not fully aware of the climate risks that they face in the medium term, over the next 20 to 40 years.</p>	<p>Partially substantiated: Firms are aware of climate risks but do not have strategies for building the long term resilience of smallholder farmers.</p>

More specifically, the survey of agribusinesses revealed the following:

- In dry areas, none of the companies are investing significantly in smallholder resilience.
- In high rainfall areas, companies that own farms are generally making limited investments in out-growers and more significant investments in their own farming operations
- Agribusinesses are more likely to respond to climate risks by expanding their catchment areas, importing raw materials, price bargaining, diversifying their products, stockpiling inventory to cope with decreases in supply, and sourcing alternative products in the event of a decrease in crop production or side-selling. Larger companies may also adopt hedging strategies.
- Although most of the agribusinesses are aware of future climate risks, none articulated internal business strategies that are aimed at improving smallholder resilience over the long term.

Agribusiness are worried about a rise in temperatures and an increase in the variability of rainfall. However, their investment strategies are more significantly affected by a broader range of commercial risks, including price variability on national and regional markets, financing constraints, and the unpredictability of government interventions in national markets. Changing tax regimes, threats of price controls, and trade restrictions more immediately threaten the returns to agribusiness investment. These findings correspond with the results of a recent World Bank assessment of agribusiness risk in the region (World Bank, 2013b).

The investment strategies of agribusinesses seeking to integrate larger numbers of smallholders into their supply chains are similarly driven more by broader market risks than by climate constraints. When rains are poor, these firms are more likely to broaden their territory of raw material supply than to help smallholders improve their water-use efficiency. This is because the returns to providing credit and advisory support

to smallholders have too often been undermined by defaults and side-selling to a competitor.



**Agribusiness are worried about a rise in temperatures and an increase in the variability of rainfall.**



## **A role for public assistance**

Many agribusinesses seek public support (from governments and donors) to help offset the risks of building supply chains that incorporate larger numbers of smallholders. These include the rising risks associated with climate change. Some firms are concerned that when public funding ends, smallholders will no longer be able to afford the new technologies.

The study recommends further research in a number of areas: an assessment of current donor programmes in order to understand the gaps in improving the climate resilience of smallholders; investigations of how changing temperatures and rainfall may be affecting the incidence of pests and diseases; research on the use of satellite systems in weather forecasting and crop monitoring; and further consideration of how public investments can support the more sustained growth of agribusiness value chains.

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