

**Evans School Policy Analysis and Research Group**

February 12, 2010

*Professor C. Leigh Anderson, PI and Lead Faculty*

*Associate Professor Mary Kay Gugerty, Lead Faculty*

*Ryan Gockel, Lead Research Analyst*

---

This literature review provides a summary of the risks that potentially limit private sector agribusiness investment in Sub-Saharan Africa (SSA), and some responses to those risks. First, the request reviews risks that limit private sector investment, according to available literature. Second, the request provides a review of interventions used to mitigate risk to agricultural investment including government policy, international financial institutions, philanthropic efforts and other private initiatives.

Risk is defined as a potential negative impact to assets, investments, or profitability of investments in the agricultural industry that may arise from some present process or future event. This request focuses on risks to agribusiness investors rather than risks to smallholder farmers, although, the two are not independent in some cases. For example, smallholder farmers face risks due to undercapitalization and poor access to credit. Weak or thin financial institutions and credit markets in SSA also affect agribusiness investors, but in different ways. A future research request could consider the differences and similarities between smallholder and agribusiness risk factors.

**Search Methodology**

The research methodology for this request included a literature review and analysis of relevant websites. The search terms included: agribusiness risk, agro-industry risk, agriculture business climate, capital flight, private sector agriculture investment, investment risks in Sub-Saharan Africa, and various search terms connecting different types of risk with the agricultural sector in SSA.

The websites reviewed included those of the International Food and Policy Research Institute (IFPRI), International Finance Corporation (IFC), the World Bank, the International Monetary Fund (IMF), the United States Department of State, the Agri-Vie Fund, and the Organization for Economic Co-operation and Development (OECD), among others.

**Risks to Private Sector Agribusiness Investment in SSA**

In SSA, investors face high, varied risks because of economic, political, and natural environmental uncertainties. The agribusiness investment literature lists risks, but generally without ranking them, or providing any empirical analysis or insight into how a specific type of risk, for example, political corruption, affects the business climate. Additionally, little information exists about characteristics of the agribusiness sector in SSA.<sup>i</sup> What literature is available suggests that the agribusiness sector is still

relatively small with an estimated contribution to Africa's GDP of just under \$70 billion, representing a total of 1 to 2 percent of world agribusiness GDP share, according to recent data.<sup>ii</sup> However, the agriculture sector plays a significant role for the economies of SSA. Agriculture accounts for 34 percent of GDP and 64 percent of employment in SSA, according to the World Bank.<sup>iii</sup> Agricultural value added as a percent of GDP from 2003 to 2005 for Tanzania and Ethiopia was 45.8 percent and 43.9 percent, respectively.<sup>iv</sup> Given the importance of the agricultural sector to the economies of SSA, agricultural investment risks have the potential to influence the economies of SSA significantly and policies to reduce risk could have major implications for both smallholders and agribusiness investors.

Despite the lack of detailed information on the agribusiness sector in SSA, a report from the OECD on business development noted that the structure of the African agribusiness sector largely mirrors the African private sector at large. The private sector is characterized by extremes of very small enterprises often serving informal and local markets and a relatively few large firms that are typically foreign-owned and generally engaged in export activities.<sup>v</sup> A 1999 World Bank study based on survey data found that agribusiness firms perceived many of the same business constraints as those reported by firms in other sectors; however, important agriculture-specific factors such as seasonality and consumption patterns resulted in different, additional, risks.<sup>vi</sup>

Zhang et al. (2007) divides agricultural risks into idiosyncratic and covariate (systemic) risk factors. Idiosyncratic risks affect individuals or households and include such things as illness or death of a family member. Covariate risks are factors that affect groups of households or a given geographical area including drought, political unrest, declining commodity prices, rising input prices, or market collapse.<sup>vii</sup> This categorization is used in some of the literature on agricultural risk; however, risks are typically addressed individually in the empirical research.

A risk management document from the FAO provides a framework for thinking about risk and environmental constraints in agriculture as follows:

- **Vulnerability constraints:** systemic risk, market risk, credit risk;
- **Operational constraints:** investment returns and capital flows, low investment and assets, geographic dispersion;
- **Capacity constraints:** infrastructure capacity, technical capacity and training, social exclusion, institutional capacity; and
- **Political and regulatory constraints:** political and social interference, regulatory issues.<sup>viii</sup>

Risk to agricultural investment is categorized in different ways across the literature. Table 1 summarizes the risks listed in the reviewed literature, though the economic and financial risks germane to investors are not independent of, and often arise from, political, social, and environmental risks.

Table 1. Risks to Agribusiness Investment in SSA

Risks to Agribusiness Investment in SSA	
Category	Examples (Direct and Indirect Risks)
<b>Political</b>	War and civil disturbance
	Corruption
	Expropriation
	Breach of contract
	Non-honoring of sovereign obligations
<b>Economic/Financial</b>	Credit risk
	Financial risk
	Currency inconvertibility
	Volatile terms of trade/Changes in commodity prices
	Price Risk
	Illiquidity
	Cost and availability of capital
	Uncertainty of investment returns
Limited ability to maintain and grow equity	
<b>Social</b>	Low education/productivity
	Disease (malaria, HIV), illness
	Lack of social capital
<b>Environmental</b>	Crop loss
	Climate/weather risks
	Drought
	Flood
	Wind
	Climate change factors

Source: Collection from reviewed literature including Zhang et al. (2007), Collier & Gunning (1999), and Ndulu & Chakraborti (2007)

### Political Instability, Civil Unrest, and Policy Uncertainty

The literature characterizes the agricultural sector in SSA as a poor business environment for enterprises to initiate and prosper. Private sector investors in SSA face significant economic risks due to the instability of political and financial institutions, uncertainty about government policy, incomplete or non-existent markets, war, corruption, and social issues in the region, among other factors.<sup>ix</sup> Miguel et al. (2004) reported that during the 1980s and 1990s, civil conflict existed in 29 of the 43 countries of Sub-Saharan Africa.<sup>x</sup> While the severity of the conflicts in SSA have declined in recent years, long-standing conflicts persist in Angola, Liberia, Mozambique, and Sierra Leone (Zhang et al., 2007). Despite some changes, political instability and conflict still remain important factors that influence risk in the region even after conflict ends.<sup>xi</sup> Conflicts diminish investment in African economies through reduced investment in physical capital and destruction of assets, including institutional capacity. Investment ratios and stocks of human capital in civil war companies are at least 50 percent lower than the average for countries without civil war.

Political instability, even if it does not lead to conflict, can harm investment climates by contributing to capital flight and creating uncertainty about the future of economic policy.<sup>xii, xiii</sup> A 2004 FAO study with case studies of farm-agribusiness linkages in Ghana, Kenya, Nigeria, South Africa, and Uganda

notes policy uncertainty combined with a lack of institutional support are major causes of limited agribusiness development in Africa.<sup>xiv</sup> Vu Le and Zak (2006) examine the factors affecting capital flight in Nigeria and Cote d'Ivoire and several countries outside of Africa. They found that the most important factors affecting capital flight, in order, are political instability, economic risk, and policy uncertainty.<sup>xv</sup> A forthcoming study in the *International Review of Applied Economics* by Boyce and Ndikumana estimates that total capital flight in Africa amounted to over \$400 billion between 1970 and 2004.<sup>xvi</sup>

Other political and social risks to agribusiness investment in SSA mentioned in the literature include poor contract enforcement, loose definitions and protection of property rights, and weak implementing capacity within ministries and public agencies with authority over agricultural and private sector development policies. These factors contribute to the high risk and cost of doing business in SSA, however, there is little information examining their specific effect on agribusiness investment in SSA.<sup>xvii</sup>

### **Economic and Financial Risks**

Political and policy instability in SSA contribute to uncertainty about future economic conditions, and hence politics and policy create financial risks, which appear to be among the most significant sources of concern for investors in SSA (*See* Zhang et al. (2007), Ndulu and Chakraborti (2007), and Collier and Gunning (1999)). More specifically, agribusiness investors face considerable financial risks because of a lack of financial institutions, weak links to global financial systems and risks related to liquidity of financial investments.

Zhang et al. (2007) divided financial risk for agricultural investors into three primary components. First, investors face financial risks due to the cost and availability of capital to finance debt and agribusiness expansion.<sup>xviii</sup> The low availability of capital results from a lack of stable financial institutions, as well as weak links to capital markets and global financial systems. For example, bond markets in Sub-Saharan Africa remain rudimentary, except in South Africa where the public and corporate bond markets have recently expanded.<sup>xix</sup> Second, agribusiness investors in SSA face risks related to the uncertainty of investment returns and slow, unreliable cash flows. In SSA, cash flow constraints are particularly problematic because capital returns from investments can be slow and investors are often faced with a high degree of uncertainty about expected profit margins. Further, agriculture naturally has cash flow risks because of the seasonality of agricultural production, high upfront costs, and limited access to credit, especially among smallholder farmers who dominate Africa's agricultural sector. Lack of irrigation infrastructure and limited access to credit are commonly cited risks to smallholder farmers, however, these risks have implications for agribusiness productivity and sector development.<sup>xx</sup> Third, investors in agribusiness in SSA face financial risks due to a limited ability to maintain and grow equity.<sup>xxi</sup>

Although there is little recent data on the financial risks and constraints in agribusiness in SSA, a 1999 study by the World Bank summarized survey data on the agribusiness environment in Malawi, Mozambique, Zambia and Zimbabwe. Survey respondents rated twenty five policy, institutional, and basic production factors in terms of the impact on profitability and performance. Although the factors varied across the countries, those with the most negative impact, in order, were: availability and cost of finance, worker skills and productivity, and packaging quality, and price.

Additional financial risks to investment include factors related to liquidity and irreversibility of investment decisions in SSA, as noted by Collier and Gunning (1999). They explain that the “irreversibility” of investments in SSA is derived from several market-related factors. First, once equipment is purchased it is difficult to resell since markets in second-hand capital are weak. Second, there are few financing options and problems of asymmetric information in the absence of reliable financial audits. In addition, risks of currency inconvertibility, breach of contract and expropriation resulting from volatile political conditions contribute to liquidity risks for agricultural investments in SSA.<sup>xxii</sup> In a 1998 study, Patillo provided evidence that in Ghana, uncertainty had a statistically significant, negative effect on the rate of private sector investment and that the effect of uncertainty is much stronger for firms facing irreversible investment decisions.<sup>xxiii</sup>

### Macroeconomic Risk

Much of the literature on investment in SSA notes that the economic environment in the region can be characterized by a high degree of risk due to macroeconomic instability, volatility of returns, unstable financial institutions, and inconsistent government policy.<sup>xxiv</sup> Ndulu (2007) noted that inflation, which is commonly used as a proxy for macroeconomic instability, has historically fluctuated considerably in SSA. According to the author, this variation perpetuates the perception of risk in the investment environment and generates skepticism about public entities’ ability to maintain stability. Though inflation levels in SSA fell from an average of 24 percent to an average of 13.3 percent for the period from 2001 to 2004, fluctuations continue with 2008 quarter-to-quarter annualized inflation ranging from 24.3 percent in the second quarter to 2.9 percent in the fourth quarter.<sup>xxv,xxvi</sup>

Many authors note that unstable macroeconomic conditions appear to have a significant impact on the investment climate in SSA.<sup>xxvii</sup> Although recent agribusiness-specific data could not be located, information from the 2003 Investment Climate Survey for Tanzania showed that 43 percent of respondent firms rated macroeconomic instability as a major obstacle to doing business in the country. The proportion of entrepreneurs who rated macroeconomic instability as a significant risk to business in Uganda and Kenya was 45 percent and 51 percent, respectively. This compares to a considerably lower 30 percent of entrepreneurs who rated macroeconomic stability as a significant risk to doing business in China. This information suggests that inflation variability and, more specifically, macroeconomic stability, is an important policy consideration for improving business conditions and reducing perception of risk in SSA.<sup>xxviii</sup>

Analysis of several major enterprise surveys conducted in Africa over the last 10-15 years offers additional insights into the factors that influence the private sector business environment. These surveys provide data across several industries with a particular focus on manufacturing. According to a review of enterprise survey data over the past 15 years, Bigsten and Söderbom (2006) stated that the leading constraint cited by business managers in Africa is financing, followed by corruption, infrastructure, and inflation. Pooling data across all regions, the researchers found a negative and statistically significant relationship between taxes, regulations, and financing, and the growth in sales and investment.<sup>xxix</sup>

While financing and unstable macroeconomic conditions may result in significant challenges in SSA, investors also often lack the information needed to assess economic risks, predict rates of return, and identify appropriate investments. The ability to assess and value risks is crucial for fostering

investment, however, many countries in SSA do not have sovereign credit ratings or reliable information on financial and economic conditions.<sup>xxx</sup> For example, in Zimbabwe, where financial information is relatively advanced for the region, a survey of exchange rate expectations found that while 21 percent of firms expected a devaluation of at least 20 percent within a year, 27 percent expected an appreciation, suggesting a high level of uncertainty about economic conditions and a general lack of information to assess risk.<sup>xxxi</sup>

### **Environmental Risks**

Finally, agribusiness investment in SSA is subject to significant risks due to climate factors, as well as a general lack of infrastructure to deal with weather related risks. In Sub-Saharan Africa, more than 95 percent of farmed land is rainfed.<sup>xxxii</sup> Access to irrigation has significant implications for agricultural productivity, unit production costs, food security, and investment attractiveness in the agricultural sector.<sup>xxxiii</sup> In addition to lacking adequate infrastructure for irrigation and transportation, the negative effects of climate change on crop production are expected to be especially pronounced in SSA due to dependency on rainfed agriculture, high levels of poverty, and low levels of human and physical capital. Some crop models predict that by 2050, average rice, wheat, and maize yields could decline up to 14 percent, 22 percent, and 5 percent, respectively, as a result of climate change.<sup>xxxiv</sup>

### **Interventions and Risk Mitigation Measures**

Interventions to address agribusiness investment risk range from government policies to stabilize financial markets to non-profit investment in capacity building and price stabilization in SSA markets. The interventions reviewed below include examples of recent private sector, government, and philanthropic efforts to provide financing mechanisms and risk mitigation products to enhance the business environment in SSA generally, and in some cases, agribusiness specifically.

#### Private Initiatives

*Agri-Vie Fund: <http://www.agrivie.com/>*

The Agri-Vie Fund is a private equity fund that focuses on agribusiness firms involved in the agribusiness value chain. The fund is managed by Sanlam Private Equity and the investment group Strategy Partner and backed by the South African Development Bank and the W.K. Kellogg Foundation. Agri-Vie invests in the processing and marketing of farming outputs such as food, beverages and fiber products. Agri-Vie recently announced that the fund will reach \$100 million in investment for agricultural projects by March 2010, and that there is a possibility to do a second fund substantially larger in 2013 or 2010.<sup>xxxv,xxxvi</sup>

#### Government

There is a large body of literature on government interventions that could be seen as attempts to reduce risk to agribusiness and improve SSA's investment climate. One example follows, but others could be provided on request.

*U.S.-led Efforts to Expand Sovereign Credit Ratings in SSA: <http://www.state.gov/p/af/rt/scr/>*

In recent years, the U.S. has helped launch a project to fund initial sovereign credit ratings in SSA countries. A sovereign credit rating is the credit rating that indicates the risk of investing in a particular environment of a country. Credit ratings provide timely, quality data, which can help investors evaluate economic environments and distinguish among markets. Prior to this initiative only four countries in SSA had received sovereign credit ratings (Botswana, Mauritius, Senegal, and South Africa).<sup>xxxviii</sup> At the end of 2006, there were 19 countries with sovereign credit ratings in SSA.

### Multilateral Organizations

*Investment Guarantee Agency (MIGA) – World Bank: <http://www.miga.org/>*

The World Bank's MIGA program helps investors and lenders in emerging markets deal with political and economic risks by insuring eligible projects against losses related to currency transfer restrictions, expropriation, war and civil disturbance, breach of contract, and non-honoring of sovereign financial obligations. The program also helps investors and lenders resolve disputes, access additional funding sources, lower borrowing costs, increase tenor of loans, acquire country/region/market specific information, and learn about social and environmental safeguards.

*International Finance Corporation (IFC) Risk Mitigation Products:*

*<http://www.ifc.org/ifcext/about.nsf/Content/RiskManagementProducts>*

IFC offers a variety of risk management products to help private sector clients investing in emerging markets to access the international derivatives markets to hedge currency, interest rate, or commodity price exposure. In addition, IFC provides local currency debt financing in three ways: (1) loans from IFC denominated in local currency; (2) risk management swaps which allow clients to hedge existing or new foreign currency denominated liabilities back into local currency; and (3) Structured Finance which enables clients to borrow in local currency from other sources.

*World Bank/IBRD Hedging Products: <http://treasury.worldbank.org/bdm/htm/index.html>*

The International Bank for Reconstruction and Development (IBRD) provides risk management and financing products for managing foreign currency risk, movements in interest rates, fluctuations in commodity prices, and other investment risks. IBRD's hedging products include interest rate swaps, interest rate caps and collars, currency swaps and, commodity swaps on a case-by-case basis. Hedging products can be built into an IBRD Flexible Loan on a stand-alone basis to manage risk on the entire portfolio of World Bank loans, or on a stand-alone basis to manage debt owed to other creditors. IBRD's risk management products also include financial products related to catastrophe including:

*Weather hedges:* Financial contracts based on an underlying weather index that transfers the risk to the financial markets. Payments are triggered by adverse weather events according to pre-specified conditions (e.g. levels of rainfall, seasonal temperatures, etc.).

*Contingent financing:* Provides countries with immediate access to financing following a natural disaster and the declaration of a state of emergency. Countries must have a disaster risk management framework in place.

*Catastrophe bonds:* Allow for the transfer the risk of a natural disaster to investors by making it possible for the issuer to not repay the bond principal if a major natural disaster occurs.

*World Bank/IBRD and IDA Guarantees:*

<http://web.worldbank.org/external/default/main?menuPK=64143540&pagePK=64143532&piPK=64143559&theSitePK=3985219>

The World Bank's Project Finance and Guarantees Department, part of the Infrastructure Network, offers three types of guarantees to commercial lenders:

*Partial Credit Guarantees* cover a portion of scheduled repayments of private loans or bonds against all risks. These guarantees are usually provided for privately funded public projects.

*Partial Risk Guarantees* cover debt service defaults on loans for private-sector projects that are caused by government failures to meet contractual obligations.

*Policy Based Guarantees* cover portions of the debt service on funds borrowed by eligible member countries from private foreign creditors in support of agreed upon structural, institutional and social policy reforms.

*African Trade Insurance Agency:* <http://www.ati-aca.org/inside.php?id=11>

The African Trade Insurance Agency (ATI), in partnership with private insurance firms, provides risk insurance products in four categories: political risk insurance, credit risk insurance, political risk insurance, comprehensive non-payment, and reinsurance. The African Trade Insurance Agency, a multilateral organization, works with private sector insurance companies to advance political risk insurance across Africa including in Kenya, Uganda, Mauritius, Burundi and Rwanda. The ATI recently brokered a \$434 million reinsurance deal with Kenya's second largest insurer, APA Insurance Company, to advance political risk insurance for firms in Kenya and Uganda.<sup>xxxviii,xxxix</sup>

*Weather-Indexed Risk Insurance:*

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/EXTCOMRISMAN/0,,contentMDK:22287457~menuPK:6403308~pagePK:210058~piPK:210062~theSitePK:4827781,00.html>

Weather index-based insurance allows companies or farmers to hedge the risk of weather related losses. Instead of payouts based on actual losses, policyholders are insured based on the realization of a weather index that is highly correlated with actual losses.<sup>xi</sup> Payments are triggered by adverse weather events based on observations of local levels of rainfall, seasonal temperatures, and other weather related variables. The World Bank currently has several programs to test the use of index-based weather insurance as a means to manage weather risks (and enhance access to finance) in a number of countries in SSA. The Agriculture and Rural Development division at the World Bank provides research and development on index-insurance using lessons from these projects. With this information, the World Bank seeks to mainstream weather risk management issues into broader Bank projects and facilitate support to integrated risk management approaches. The literature on weather-indexed insurance is developing and several authors consider the efficiency and effectiveness of the approach in helping to mitigate business risks.<sup>xli,xlii,xliii,xliv</sup> Although there is literature and test projects in progress, there does not seem to be an overall conclusion on the efficacy of weather-indexed risk insurance in SSA.

*3ADI/High-Level Conference on the Development of Agribusiness and Agro-Industries in Africa:* <http://www.blcd-3a.org/en/About.htm?PHPSESSID=f33a5614f5cb766b48009f35c6fa6131>

The UNIDO, FAO, and IFAD are collaborating with the African Development Bank, the UN Economic Commission for Africa, and the Government of the Federal Republic of Nigeria to launch

the 3ADI program. The goal of this program is to increase private sector investment flows into agriculture by mobilizing resources for agribusiness and agro-industrial development from domestic and international financial systems. The interventions of the program serve to augment resources from the private and financial sectors to increase profitability and reduce risks by reducing costs for investors in agribusiness in Africa. The program will include support for public-private partnerships, loan guarantees, investment funds targeting African agro enterprises, value chain financing mechanism, and risk mitigation products such as insurance on warehouse receipt systems. A March 2010 conference will gather leaders, policymakers, and researchers to discuss and plan for the initiative.<sup>xlv</sup>

#### *Microfinance and Microinsurance*

Microfinance programs in SSA including those supported by Opportunity International, CARE, K-REP, and others, may reduce agricultural risks for both smallholder and agribusiness investors. For example, microfinance programs that help smallholder farmers increase productivity through the expansion of access to irrigation could help reduce investment risks for agribusiness. A future research request might consider the linkages between smallholder and commercial agribusiness risks and risk mitigation measures.

Microinsurance schemes have also spread in SSA in recent years.<sup>xlvi</sup> Microinsurance has the potential to reduce welfare costs from negative shocks by offering a payout when the loss occurs. Dercon and Kirchberger in collaboration with Gunning and Platteau (2008) provide a comprehensive literature review on the current state of microinsurance that reviews types of microinsurance schemes, impacts, demand and supply for products.<sup>xlvii</sup> The Microinsurance Innovation Facility of the International Labour Organization also has research information, briefings, and lists of microinsurers in SSA.<sup>xlviii</sup>

### **Strategies for Producers**

In addition to risk mitigation efforts through public, private, and philanthropic entities, there are certain strategies that agribusiness producers may use to mitigate the risks associated with investing and doing business in SSA. Several reports note that when used properly, agribusiness risk management and pricing strategies can reduce risk and increase profits (FAO 2006, Kang & Mahajan 2006, Miller 2008). The strategies that relate to risk reduction are listed below. It is important to note that the effectiveness and implementation ease of these strategies varies considerably.

*Minimum price contract:* A minimum price contract establishes a floor price for the duration of the contract.

*Hedge-to-arrive (HTA) contract:* This contract allows the producer to set the futures price level by the delivery date but the basis is determined later.

*Short futures hedge:* This type of hedge involves selling futures contracts to protect the value of the grain or stock in inventory or the value of expected production. A short futures hedge can help to mitigate downside price risk.

*Put option purchase:* Similar to a minimum price contract, this contract sets a price floor on the crop or livestock throughout the life of the contract. If prices rise, the producer has the opportunity of taking advantage of upside price gains.

*Crop insurance:* Crop insurance allows producers to transfer risk from themselves to others for a price stated as an insurance premium. Crop insurance protects against losses and it offers the opportunity for more consistent gains. The primary benefits of crop insurance are more reliable cash flows and more flexibility in marketing plans. More specifically, producers can forward-price production with greater certainty and create a more predictable level of revenue.<sup>xlix</sup>

*Commodity swaps:* A swap obligates two parties to exchange a floating price for a fixed price for a commodity at specified dates. Typically, commodity swaps involve a consumer, producer, and a financial intermediary. A key advantage of swaps is that they help mitigate long-term price risks by improving cash flow predictability.<sup>1</sup>

*Storage:* Storage can be used as a way to avoid seasonal price lows and maybe justified when there is an expected market price or demand increase.

*Cash sale:* Cash sales for products can be used when prices are favorable.

*Fixed price contract for deferred delivery:* Allows producers to set a price for later delivery. Fixed price contracts, also known as cash forward contracts, may also allow producers to schedule deliveries at times of the year that better fit with labor availability, grain quality, and logistics.

*Deferred or delayed price contract:* This type of contract transfers title of a crop to the buyer at delivery but allows sellers to set the price later.

*Basis contract:* A basis contract allows producers to fix the basis price (difference between the local cash price and futures contract price). The basis price does not change in response to local supply and demand and is therefore more stable than the local price or the futures prices.<sup>li</sup>

*Contract farming:* Contract farming may be an effective way for major producers to mitigate risk by locking in a set price for products to insulate them from price risk and guarantee predictable cash flows.<sup>lii</sup> However, weak contract enforcement ability could hinder the potential for contract farming to significantly mitigate agribusiness risk factors.<sup>liii,liiv</sup>

## **Conclusion**

This research request provides an overview of risks to agribusiness investment in SSA. We reviewed 1 article that considered survey data on perceived agribusiness investment in SSA, and 5 articles that provided empirical research on SSA investment more broadly defined. The larger body of literature on risks to smallholder farmers, though relevant to agribusiness, was not reviewed.

Despite the limited information examining how particular risk factors influence private-sector agribusiness investment in the region, the information that is available suggests that economic and political instability are among the most significant risks to agribusiness investors. The literature also notes that agricultural risks in SSA are exacerbated by environmental risks that contribute to unreliable cash flows and uncertain profitability. These risk factors are compounded by poor data and information for investors to use in assessing and pricing risks appropriately.

Interventions to mitigate agribusiness risks include government policies to stabilize prices and liberalize markets, investment guarantees, various types of insurance, and other market-based mitigation products that are spreading throughout Africa. In addition, producer strategies to mitigate risk, such as purchase and price agreements and hedging mechanisms, are becoming increasingly popular. It appears that numerous types of interventions and strategies are being employed, but as yet there is little information on their relative impact on investment levels.

Please direct all comments and questions about this research to Leigh Anderson at [eparx@u.washington.edu](mailto:eparx@u.washington.edu).

## Endnotes

- 
- <sup>i</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>ii</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>iii</sup> World Bank. (2008). *World Development Report 2008*. Chapter 6: Agriculture for Development. World Bank Publications.
- <sup>iv</sup> World Bank. (2008). *World Development Report 2008*. Chapter 6: Agriculture for Development. World Bank Publications.
- <sup>v</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>vi</sup> Jaffee, S. (1999). Southern Africa Agribusiness: Gaining Through Regional Collaboration. *World Bank Publications*, 23.
- <sup>vii</sup> Zhang, X., Rockmore, M, & Chamberlin, J. (2007, December). A Typology for Vulnerability and Agriculture in Sub-Saharan Africa (Discussion paper 00734). *International Food Policy Research Institute*.
- <sup>viii</sup> Miller, C. (2008, January). *Risk Mitigation and Management for Agricultural Investment*. EASYPol Module 155. Investment and Resource Management. Food and Agriculture Organization of the United Nations.
- <sup>ix</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>x</sup> Miguel, E., Satyanath, S., & Sergenti, E. (2004). Economic Shocks and Civil Conflicts: An Instrumental Variables Approach. *Journal of Political Economy*, 112 (4).
- <sup>xi</sup> Zhang, X., Rockmore, M, & Chamberlin, J. (2007, December). A Typology for Vulnerability and Agriculture in Sub-Saharan Africa (Discussion paper 00734). *International Food Policy Research Institute*.
- <sup>xii</sup> Ndulu, B.J. & Chakraborti, L. (2007). *Challenges of African Growth: Opportunities, Constraints and Strategic Directions*. World Bank Publications.
- <sup>xiii</sup> Le, Q.V., & Zak, P. J. (2006). Political risk and capital flight. *Journal of International Money and Finance*, 25, 308-329.
- <sup>xiv</sup> Danson, A., Ezedinma, C., Reuben Wambua, T., Bashasha, Kirsten, J., Satorius, K. (2004). *Strengthening farm-agribusiness linkages in Africa Summary results of five country studies in Ghana, Nigeria, Kenya, Uganda and South Africa*. Food and Agriculture Organization of the United Nations.
- <sup>xv</sup> Le, Q.V., & Zak, P. J. (2006). Political risk and capital flight. *Journal of International Money and Finance*, 25, 308-329.
- <sup>xvi</sup> Ndikumana, L. & Boyce, J. Capital Flight from Sub-Saharan Africa: Linkages with External Borrowing and Policy Options. *International Review of Applied Economics* (Forthcoming).
- <sup>xvii</sup> OECD. (2007). *Business for Development: Fostering the Private Sector 2007*. ISBN: 978-92-64-03421-1. OECD.
- <sup>xviii</sup> Zhang, X., Rockmore, M, & Chamberlin, J. (2007, December). A Typology for Vulnerability and Agriculture in Sub-Saharan Africa (Discussion paper 00734). *International Food Policy Research Institute*.
- <sup>xix</sup> Kahn, B. (2005, December). "Original Sin" and Bond Market Development in Sub-Saharan Africa. In *Teunissen and Akeerman (eds) Africa in the World Economy*. FONDAD.
- <sup>xx</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>xxi</sup> Zhang, X., Rockmore, M, & Chamberlin, J. (2007, December). A Typology for Vulnerability and Agriculture in Sub-Saharan Africa (Discussion paper 00734). *International Food Policy Research Institute*.
- <sup>xxii</sup> Collier, P., & Gunning, J. W. (1999). Explaining African economic performance. *Journal of Economic Literature*, 37, 64-111.
- <sup>xxiii</sup> Pattillo, C. (1998). Investment, Uncertainty, and Irreversibility in Ghana. IMF Staff papers. Vol. 45, No. 3.
- <sup>xxiv</sup> Collier, P., & Gunning, J. W. (1999). Explaining African economic performance. *Journal of Economic Literature*. 37, 64-111.
- <sup>xxv</sup> Ndulu, B.J. & Chakraborti, L. (2007). *Challenges of African Growth: Opportunities, Constraints and Strategic Directions*. World Bank Publications.
- <sup>xxvi</sup> IMF. (2009). Regional Economic Outlook Sub-Saharan Africa. *World Economic and Financial Surveys*. ISBN 978-1-58906-838-4.
- <sup>xxvii</sup> Poutlon, C. Kydd, J. & Dorward, A. (2006). Overcoming Market Constraints on Pro-Poor Agricultural Growth in Sub-Saharan Africa. *Development Policy Review*. 24 (3): 243-277.
- <sup>xxviii</sup> Ndulu, B.J. & Chakraborti, L. (2007). *Challenges of African Growth: Opportunities, Constraints and Strategic Directions*. World Bank Publications.

- 
- xxix Bigsten, A. & Söderbom, M. (2006). What Have We Learned from a Decade of Manufacturing Enterprise Surveys in Africa? *The World Bank Research Observer*. 21(2):241.
- xxx Ndulu, B.J. & Chakraborti, L. (2007). *Challenges of African Growth: Opportunities, Constraints and Strategic Directions*. World Bank Publications.
- xxxi Collier, P., & Gunning, J. W. (1999). Explaining African economic performance. *Journal of Economic Literature*. 37, 64-111.
- xxxii Wani, S.P., Rockström, J., & Oweis, T.. (2009). *Rainfed Agriculture: Unlocking the Potential*. CAB International and CGIAR.
- xxxiii Riddell, P.J., & Westlake, M. (2006). *Demand for Products of Irrigated Agriculture in Sub-Saharan Africa* (ISBN 92-5-105581-5). FAO Land and Water Development Division.
- xxxiv IFPRI. (2009). *Impact of Climate Change on Agriculture-Factsheet on Sub-Saharan Africa*. Retrieved from: <http://www.ifpri.org/publication/impact-climate-change-agriculture-factsheet-sub-saharan-africa>.
- xxxv Reuters Africa. (2010, January 14). Agri-Vie Eveys \$300 million for Africa Farm Projects. *Reuters.com*. Retrieved from: <http://af.reuters.com/article/topNews/idAFJOE60D0DM20100114?pageNumber=2&virtualBrandChannel=0>.
- xxxvi Agri-Vie. (2010). Investment Approach. *Agri-Vie*. Retrieved from: [www.agrivie.com](http://www.agrivie.com).
- xxxvii Taylor, J. (2003, June 26). *Economic Policies and Investment Risks in Africa*. US-Africa Business Summit. Washington, D.C.
- xxxviii Butunyi, C. (2010, January 23). East Africa: Now APA to Offer Political Risk Cover for Kenya, Uganda Firms. *allAfrica.com*. Retrieved from: <http://allafrica.com/stories/201001250444.html>.
- xxxix Makau, J. (2010, January 19). APA wins Sh31b backup for political risk policy. *BusinessDailyAfrica.com*. Retrieved from: <http://www.businessdailyafrica.com/Company%20Industry/-/539550/845718/-/t4lgbyz/-/>.
- xl Barnett, B. & Olivier M. (2007). Weather Index Insurance for Agriculture and Rural Areas in Lower Income Countries. *American Journal of Agricultural Economics*, 89, (5), 1241-1247.
- xli Vedenov, D. & Barnett, B. (2004). Efficiency of Weather Derivatives as Primary Crop Insurance Instruments. *Journal of Agricultural and Resource Economics*. 29(3), 387-403.
- xlii Gine, X. & Yang, D. (2009). Insurance, credit, and technology adoption: Field experimental evidence from Malawi. *Journal of Development Economics*, 89, 1-11.
- xliiii Barnett, B. & Mahul, O. (2007). Weather Index Insurance for Agriculture and Rural Areas in Lower Income Countries. *American Journal of Agricultural Economics*, 89, (5), 1241-1247.
- xliv Alderman, H. & Haque, T. (2009). Insurance Against Covariate Shocks (Working paper 95). *World Bank*.
- xlv 3ADI. (2010, March). *High-level Conference on the development of agribusiness and agro-industries in Africa. African Agribusiness and Agro-Industries Development Initiative (3ADI). Executive Summary*. Conference on the development of agribusiness and agro-industries in Africa. Retrieved from: [http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/a3ADI\\_exec\\_summary\\_Eng.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/a3ADI_exec_summary_Eng.pdf).
- xlvi Matual, M., McCord, J., Phily, C. & Harms, J. (2009, October). *The Landscape of Microinsurance in Africa* (Briefing Note 1). Microinsurance Innovation Facility. International Labour Organization.
- xlvii Dercon, S. & Kirchberger, M. in collaboration with Gunning, J.W. & Platteau, J.P. (2008). Literature Review on Microinsurance (Microinsurance paper no. 1). International Labour Organization.
- xlviii Microinsurance Innovation Facility. (2009, February 11). About Us. International Labour Organization. Retrieved from: <http://www.ilo.org/public/english/employment/mifacility/about/index.htm>.
- xlix Miller, C. (2008, January). Risk Mitigation and Management for Agricultural Investment. Food and Agriculture Organization of the United Nations. EASYPol Module 161.
- <sup>1</sup> Kang, K.G., & Mahajan, N. (2006). *An introduction to market-based instruments for agricultural price risk management*. Agricultural Management, Marketing, and Finance (Working document 12). Food and Agricultural Organization of the United Nations.
- <sup>ii</sup> Miller, C. (2008, January). Risk Mitigation and Management for Agricultural Investment. Food and Agriculture Organization of the United Nations. EASYPol Module 161.
- <sup>iii</sup> Miller, C. (2008, January). *Risk Mitigation and Management for Agricultural Investment*. Investment and Resource Management. Food and Agriculture Organization of the United Nations. EASYPol Module 155.
- <sup>iiii</sup> Fuksaku, K. (2007). *Business for Development: Fostering the Private Sector*. Organisation for Economic Co-operation and Development. OECD Publishing.
- <sup>liv</sup> Miller, C. (2008, January). Risk Mitigation and Management for Agricultural Investment. Food and Agriculture Organization of the United Nations. EASYPol Module 161.