AFRICA AGRICULTURAL MARKETS PROGRAM (AAMP) POLICY BRIEFING

Agricultural Risk Management in Africa:

A Summary Issues and Experiences

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1. Agricultural Risk

Agriculture is an inherently risky business. Drought, floods and wide swings in fertilizer prices and world food prices translate into high variability in domestic production and staple food prices.

In the absence of risk management institutions, farmers adopt less risky and less profitable land uses that lower overall productivity. Available studies suggest that farm incomes would be as much as 30 percent higher than current levels if farmers had the option of effectively mitigating risks. Given the high costs these risks impose – on national incomes, vulnerable household welfare and political stability – managing these risks remains central to achieving rapid agricultural productivity and growth.

Policy makers, practitioners, and food policy researchers have long debated means of managing these risks. While traditional *marketing board-centric* policies proved expensive, dismantling of those policies under the structural adjustment of 1980 and 1990s has not been fully effective either. Modern, market-based risk management options—such as commodity exchanges, weather insurance, warehouse receipts—remain in their infancy across much of Africa. The resulting lively debates have focused on finding the right mix of short term interventions for managing risk while the countries find ways to solve underlying causes.

Table 1: Sources of agricultural risks and available policy options

Risk Types	**Sources**	**Policy Options**		
		Long-Run Solutions	***Short-Run Risk Management***	
			Traditional government responses	***Modern risk management instruments***
Production risks	Drought	R&D for drought tolerant varieties; irrigation	• Price and trade controls • grain reserves (security stocks)	• Weather index-based insurance • Crop insurance
	Floods	Flood prevention investments (dams)		• Flood insurance
Price	High transaction costs	• Investments in roads • open borders	• Credit programmes	• Warehouse receipts
	Poor price predictability	• telecommunications • mkt info systems • predictable policies	• price controls • buffer stocks	• commodity exchange • forward contracts
	Reliance on a single staple	• Crop diversification • Consumption diversification	• input subsidies	• Weather-based insurance

2. Long-Term Solutions

Agricultural risks result from underlying agro-ecological, infrastructural, and institutional bottlenecks. These bottlenecks are the ultimate source of agricultural risks. Hence, long-run risk management policies need to focus on curing these problems at source (Table 1). These efforts will require substantial increases in long-term public investment in agriculture. Yet in recent years, public investments in agriculture have averaged about 4–6 percent for Africa, and only a handful of countries have reached or exceeded the CAADP target of 10 percent. As a result, public investments in building basic market fundamentals (e.g., rural roads, rural electricity, telecommunications, etc.) continue to remain low. Investments in rural roads, electricity, telecommunications and irrigation will need to be stepped up in order to reduce or eliminate sources of production and price risks.

3. Short-term Mitigation

a. Traditional, government-led efforts

Reviews of past experience indicate that traditional food reserves and buffer stock schemes for staple food price stabilization have often proven costly, inefficient and sometimes even counter-productive. Indeed, available studies suggest that countries intervening in these ways have generally experienced lower agricultural growth and higher price variability. This suggests that many governments' well-meaning attempts to stabilize prices may actually destabilize them.

Strategic grain reserves seem to work best where governments manage small stocks, with a lean organization, transparent management rules and links with safety net and emergency operations. Most reviews likewise recommend that government-led price stabilization policies be reformed to contain potential market destabilization and instead adopt clear, transparent intervention rules that help to stimulate market development.

b. Modern instruments for managing risk

Agricultural commodity exchanges, such as the SAFEX exchange in South Africa, provide modern machinery for transparent price formation and future price forecasting and thus provide the foundation for a host of modern risk management options, including call forward contracts, call options, and price hedging. However, such initiatives have had limited success in Africa. Investments in data, information, logistics, awareness, human capital, grades and standards and market institutions needed for modern instruments to take-off.

Warehouse Receipt Systems (WRS). Given their inter-linkages, WRS and commodity exchanges have faced some common problems, including lack of enforceable grades and standards, size of transactions, enabling regulatory environment, and public interventions in grain markets. Despite these challenges, WRS have shown signs of success in some AAMP countries.

Weather Index Insurance. Our review suggests that these programs are at their infancy, with very limited reach and insurance coverage. Total beneficiaries under all pilots in AAMP countries covered about 75,000 households, which is minuscule compared to the size of the farming community. These pilots, however, offer the following valuable lessons: a) Many countries in the region do not have the necessary infrastructure (e.g., weather stations) and hence data to construct the indices. Thus, investment in the necessary infrastructure is critical. b) Implementation of weather insurance require highly skilled human capital, which again is limited. Large resources spent on some expensive pilots can go towards that end.