

Offering Weather Risk Management Solutions in Malawi



Background

Malawi is a land-locked country situated in the Eastern part of Southern Africa. Almost 90 percent of the population lives in rural areas, where the majority is engaged in smallholder, rain-fed subsistence agriculture. Maize production is a crucial element of food security and recurrent droughts lead to chronic and widespread malnutrition. Agriculture contributes to 38 percent of the country's GDP but its performance has been weak and erratic mainly due to the impact of drought, and this has constrained growth in the country. The Government of Malawi approached the World Bank for help in protecting Malawi against the financial impact of severe droughts.

Financing Objectives

The weather risk management transaction falls within a comprehensive agricultural risk management framework developed by the country with the assistance of the Africa Agriculture and Rural Development Department (AFTAR) and the Agricultural and Rural Development Department (ARD) of the World Bank. The Commodity Risk Management Group (CRMG) within ARD has been assisting the government to identify when weather risk management instruments can be appropriately used and to help structure market-based tools for commodity risk management. New strategies to minimize weather-related risk, such as price hedging and micro- and macro-weather risk transfer products, promise to help reduce national vulnerability to drought. This work has been done with support from other donors including The UK Department of International Development (DfID) which provided budget support to help the Government of Malawi pay the premium payment for the weather hedge.

The Structure

The contract was structured as an option on a rainfall index. The index links rainfall and maize production so that, if precipitation falls below a certain level, the index will reflect the projected loss in maize production. Under the contract, if the maize production in the country, as estimated by the rainfall index, falls significantly below the historical average, Malawi will receive a payout of up to a maximum of \$5 million.

Highlights

- Malawi, heavily exposed to the risk of drought, is the first country to hedge its weather exposure with the World Bank
- The transaction is the first market-based hedging tool offered to an IDA client

Type of contract	Put option
Max payout	\$ eq. 5 Million
Start Date	October 2008
Final date	April 2009
Strike	10% below historical average maize production
Risk taker	Swiss Re

The payout could be used in the context of the wider risk management framework to finance price risk management strategies for maize imports.

Outcome

Since June 2008, the World Bank has been able to offer intermediation services on index-based weather derivatives. World Bank intermediation allows clients to access the financial markets and transfer weather-related risk to market counterparts. It is the first time a market-based hedging tool has been offered to an IDA client. In September 2009, the Government of Malawi renewed the weather derivative contract for a second term.

The product is a complement to the broad range of catastrophe financing solutions to help countries plan proactive responses to natural disasters. It is also a complement to market-based tools to manage a range of risks, including interest rate, currency and commodity, offered to IBRD countries. Weather risk management transactions can be customized according to each country's specific needs based on the type of weather hazard, level of protection, and the estimated financial loss associated with a severe and catastrophic event. The applications of this product span from agriculture and energy production to hedging revenues based on tourism.

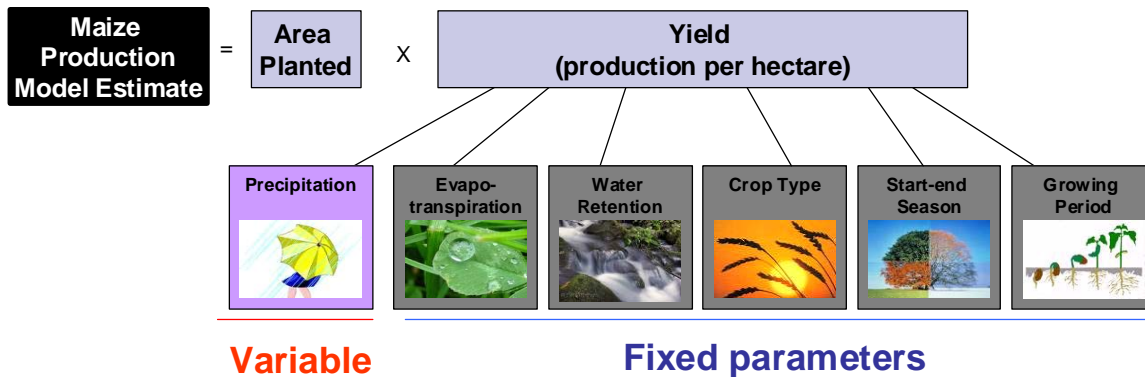


How does the transaction work?



- The Government of Malawi will receive a payout from the World Bank if the index hits the pre-determined trigger
 - The trigger was selected by Malawi, based on coverage and cost considerations
- The World Bank entered into a mirroring agreement with a market counterpart and effectively transferred the risk onto the entity.

How does the index work?



- The **Malawi Maize Index** is designed as a proxy of maize production
 - The level of rainfall is the only variable in the index
 - The index is based on model used by government of Malawi since 1992