## CASE STUDY 1: Weather Based Index Insurance Rwanda

In Rwanda, all One Acre Fund (OAF) clients receive insurance as part of their service package of financing for farm inputs, seed and fertiliser, training on agricultural techniques and market facilitation. As Rwanda is a small country, bad weather can affect a large proportion of farmers at the same time. Insurance is therefore an important part of the package offered by OAF, because without it farmers who invest by purchasing training and inputs would be at the greatest risk and may not be able to pay back their loans. Additionally, farmers who have lost everything in the previous season are more hesitant or unable to invest money back into their farms the next season.

Farmer awaits a livestock insurance payout. Credit, Neil Palmer CIAT

OAF, in partnership with the Rwandan Ministry of Agriculture and Animal Resources and the Syngenta Foundation, launched a weather-based index insurance trial in Rwanda in October 2012 after a smaller trial earlier in the year proved successful. With this system, if rainfall is either too much or too little, the farmers' credit is reduced according to the severity of crop loss. If there is total crop loss, the farmers' entire loan may be forgiven. A weather station was opened in partnership with the Ministry of Agriculture to measure the amount of rain during the cropping season. This information was then combined with data on how much rainfall key crops such as maize and beans need to survive. If the rain is either too much or too little for a decent harvest, a pay-out is awarded.

The insurance policy has already proved its value for those involved in the early trial, as rainfall levels were low in southern Rwanda during the January 2012-June 2012 growing season. As a result, One Acre Fund forgave a portion of affected farmers' loans, allowing them to meet their repayment requirements and begin the September 2012-January 2013 season with a clean slate.[1]

## CASE STUDY 2: R4 Rural Resilience Initiative, Ethiopia & Senegal

The R4 Rural Resilience Initiative (previously the Horn of Africa Risk Transfer for Adaptation (HARITA) project) is a joint programme led by Swiss Re and Oxfam. Farmers are given the option to work on projects designed to reduce agricultural risk, such as improving the soil and reducing water run-off, in order to purchase weather-based index insurance. It gives farmers the option to pay for their premiums with labour, engaging them in community-led and locally designed climate adaptation initiatives such as reforestation and crop irrigation projects in return for insurance. This programme has reached 29% of Tigray's population.[2]

"R4" refers to four strategies for managing risk: risk reduction, risk reserves, risk transfer, and prudent risk taking. Building 'risk reserves' means that farmers build a financial base, either individually or as a group, which can provide a buffer for short-term needs in a response to shocks, aiding a farmer's ability to cope with risk. Prudent risk taking allows the savings to be used as microcredit, allowing farmers to create an asset base.

Field of teff in Adi Ha, Ethiopia. Credit. Eva-Lotta Jansson, Oxfam America

The programme has since been scaled-up from 200 Ethiopian farmers in the original 2009 HARITA pilot in Tigray, to more than 24,000 farmers across 81 villages by 2014. From 2009-2012, insured farmers increased their savings by an average of 123% more than their uninsured counterparts. In some districts farmers with insurance were able to increase their number of oxen, while others enjoyed increased reserves of grain. For example, in Kola Tembien, farmers who bought insurance in both 2010 and 2012 increased their grain reserves by 254% compared to those who never bought insurance. Farmers who bought insurance also displayed a greater ability to diversify their income sources.[3]

An additional 2,000 farmers in Senegal also benefitted from the R4 initiative in 2014, following the 2013 Senegalese launch of the scheme.[4] Farmers report that they see insurance as a form of saving which helps them survive the inevitable droughts. One farmer said "it saves your money in time of good harvest and compensates you when the rains are not good. On the other hand, you benefit from increased yields as a result of the inputs and knowledge when the harvest is good."

## CASE STUDY 3: Agriculture & Climate Risk Enterprise (ACRE), East Africa

The Agriculture and Climate Risk Enterprise (ACRE), formerly known as Kalimo Salama, is a combined micro- and macro-insurance scheme. It is the largest index insurance programme in the developing world and in sub-Saharan Africa, offering products for both smallholder and large scale producers. The price of the policy premium depends on what kind of insurance the farmer is purchasing. For example, livestock insurance costs 3.5% of the value of each animal. Farmers are required to purchase an animal care package as a condition of the insurance, which ensures cattle are not lost to common and preventable diseases. A


Kilimo Salama insurance client. Credit, Jeff Haskins

study in Zambia showed that this reduced cattle mortality rates from 22% to 1.6%.[5]

Cooperatives such as the Tanykina Dairy Cooperative in Kenya pre-finance the premiums then deduct the amount owed once the produce is delivered. This removes the upfront cost to the farmer and makes the cost more manageable. The programme bypasses expensive farm visits and instead measures loss through automated weather stations and mobile payments. These instruments dramatically reduce administrative costs and enables insurers to offer a more affordable premium policy for smallholders.[6] One study showed that insured farmers had 16% more earnings and invested 19% more compared to their uninsured neighbours. In 2012, around 177,780 farmers received $8.4 million in financing, in part due to ACRE's index insurance products. Further, many would not have been able to access credit without an insurance policy to serve as collateral.[7]

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[1] One Acre Fund 2012, 'Credit Insurance Launched in Rwanda' 13 December 2012, *One Acre Fund Blog*. Available from: <http://www.oneacrefund.org/blogs> [30/06/2015].

[2] Norton, M, Madajewicz, M & Tsegay. AH 2013, *Managing risks to agricultural livelihoods: Impact evaluation of the HARITA program in Tigray, Ethiopia, 2009-2012* Oxfam America, Washington, DC.

[3] Norton, M, Madajewicz, M & Tsegay. AH 2013, *Managing risks to agricultural livelihoods: Impact evaluation of the HARITA program in Tigray, Ethiopia, 2009-2012* Oxfam America, Washington, DC.

[4] Greatrex, H, Hansen, JW, Garvin, S, Diro, R, Blakeley, S, Le Guen, M, Rao, KN & Osgood, DE 2015, 'Scaling up index insurance for smallholder farmers: Recent evidence and insights' *CCAFS Report No. 14,* CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Copenhagen.

[5] Syngenta Foundation 2012, *Innovative New Low-Cost Livestock Insurance Protects Dairy Cows,* Available from: <http://www.syngentafoundation.org/__temp/Livestock_Insurance_Launch_Release_6_Feb13_final.pdf> [30 June 2015].

[6] Syngenta Foundation (no date), *"Kilimo Salama" becomes ACRE.* Available from <http://www.syngentafoundation.org/index.cfm?pageID=562> [30 June 2015].

[7] Greatrex, H, Hansen, JW, Garvin, S, Diro, R, Blakeley, S, Le Guen, M, Rao, KN & Osgood, DE 2015, 'Scaling up index insurance for smallholder farmers: Recent evidence and insights' *CCAFS Report No. 14,* CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Copenhagen.