### PARTNER PROFILES

<table>
<thead>
<tr>
<th>Country</th>
<th>Rwanda, Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market launch</td>
<td>2010 (Rwanda), 2013 (Zambia)</td>
</tr>
<tr>
<td>Clients</td>
<td>35,134</td>
</tr>
</tbody>
</table>
| Partners      | Insurers: SORAS Assurances Generales LTD (Rwanda); Focus Insurance (Zambia)  
Reinsurers: Swiss Reinsurance Company LTD, Prima Re Zam Re  
Delivery Channels: MFIs, agribusinesses |
| Products      | Satellite and weather station-based weather index insurance (Irish Potatoes, Maize, Rice, Cotton) |
| Insured Perils| Dry spells and excess rainfall.  
[Note: Some products have been designed to provide coverage against flooding by indexing the drainage basins.] |
| Total Insurance Portfolio | $1.4 million (2013) |
| Insurance Payouts | $15,396 (2013) |
| Average Cost of Insurance | 9% - 14% of the sum insured |

**Development Impact**

- Increased agricultural bank portfolios: Weather index insurance enabled Kenya Commercial Bank to increase its agricultural portfolio in Rwanda from 1,600 farmers in 2012 to 6,400 in 2013. KCB has made weather index insurance a compulsory requirement for all agricultural lending. Agricultural lending by KCB has increased from approximately $108,000 in 2012 to over $233,000 in 2013.
- Increased investment and changed investment behavior: Investment in Irish potatoes by insured farmers generally provides higher returns than maize and rice. The sum insured for this crop increased from $16,000 in 2012 to $254,000 in 2013.

**Background**

- Agriculture in Rwanda accounts for one-third of Rwanda’s GDP; constitutes the main economic activity for rural households (especially women) and remains the main source of income. Today, the agricultural population is estimated to be a little less than 80% of the total population. The sector meets 90% of the national food needs and generates more than 70% of the country’s export revenues. (Source: Rwanda Development Board).
- Much of the agricultural land is rain-fed, with little or no irrigation available. This is exacerbated by the fact that more than 68% of Rwandan land is on hillsides with a slope greater than 16%. The majority of agricultural activities is by non-commercialized smallholder farmers, with minimal investment leading to reduced yields and continued food insecurity.
- Commercial banks and microfinance institutions are using weather index insurance as a tool to reduce their portfolio at risk when lending to smallholders. This enables rural investment to increase, which in turns provides higher agricultural outputs leading to higher incomes. In addition, weather index insurance provides a safety net against the effects of adverse weather.
### Project Description

MicroEnsure operated two main weather index insurance products in Rwanda:

- **weather station-based product** that provides coverage against dry spells and excess rain. To insure against the effects of dry spells, cumulative rainfall is measured daily over a pre-determined period (typically between 30 and 45 days). If the cumulative rainfall falls below a set threshold for the period, a payout is made. Payouts increase depending on the severity of the weather event, typically providing an additional percentage payout of the sum insured for every deficit millimeter of rainfall below the threshold. To insure against the effects of excess rainfall, rainfall is measured daily for the insured period. If the cumulative rainfall for a set period (typically three days) is below the pre-determined threshold, an increasing payout is made depending on the severity of the event.

- **satellite-based product** that also provides coverage against dry spells and excess rain. Cumulative rainfall over a number of consecutive decades (typically three decades for dry spells and one decade for excess rainfall) is measured. If rainfall falls below or increases above the ‘normal’ for the same period, a payout is made. Payouts increase depending on the severity of the weather event, but typically provide an additional percentage payout of the sum insured for every deficit or additional percentage point of rainfall below or above the threshold. Satellite-based products estimate rainfall within a given area, which typically gives a better average than weather station-based products.

### Success Factors

- Large increase in farmer numbers and sums insured in the latter part of 2013.
- Introduction of satellite-based products, which allows areas to be covered where there is no current or historical weather station data available.
- Payouts of over $15,000 in 2013 demonstrate the effectiveness of the product.

### Opportunities

- Using satellite data, MicroEnsure is no longer limited by weather station locations for implementing products.
- Higher value crops such as Irish potatoes and coffee have the potential to increase the total sum insured per farmer. This means that farmers will take out higher loans and more insurance, improving the profitability threshold for creating a sustainable market.

### Contacts

MicroEnsure (UK) Limited
David Dorey, Project Manager
Parker Court, Knapp Lane, Cheltenham, GL50 3QJ, UK
+44 (0)1242 526836
+44 (0)7894 193863
david.dorey@microensure.com