

# R4 Rural Resilience Initiative

QUARTERLY REPORT | OCTOBER - DECEMBER 2015



**OXFAM**  
America



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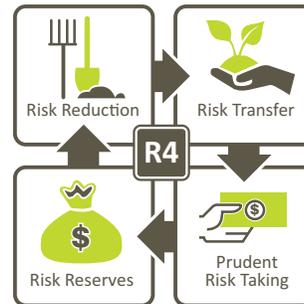
**Cover:** R4 farmers participate in the end of the season assessment organized by the International Research Institute for Climate and Society (IRI) in Ethiopia.  
*WFP / Fabio Bedini*



## EXECUTIVE SUMMARY

The R4 Rural Resilience Initiative (R4) is a strategic partnership between Oxfam America (OA) and the United Nations World Food Programme (WFP). R4 was initiated in 2011 to respond to the challenges faced by food-insecure communities enduring increasingly frequent and intense climate disasters and other shocks. The program builds on the initial success of HARITA (Horn of Africa Risk Transfer for Adaptation), an integrated risk management framework developed by Oxfam America, the Relief Society of Tigray (REST), Ethiopian farmers and several other national and global partners. R4 refers to the four risk management strategies integrated in the project to strengthen farmers' food and income security. The initiative combines improved **resource management** (risk reduction), **insurance** (risk transfer), **livelihoods diversification and microcredit** (prudent risk taking), and **savings** (risk reserves).

During this quarter, risk reduction activities have been fully implemented in Ethiopia and Senegal. R4 is also now operational in Malawi and Zambia where several components of the R4



approach are being actively integrated. In Southern Africa, The initiative is supported by a three-year grant provided by the Swiss Agency for Development and Cooperation (SDC).

This year **Ethiopia** experienced its worst drought in 30 years,<sup>1</sup> exceeding the levels of the 2011 Horn of Africa Crisis. In this context, the early window index triggered in 50 of the 81 R4 villages, with payouts ranging from four to 100 percent. In both Amhara and Tigray, farmers continued their saving and credit activities, and completed their risk reduction work, including compost-making and micro-gardening.

1. As stated by the UN Secretary General Ban Ki-moon during a donors humanitarian round table convened in Addis Ababa (January 2016) in the margins of the 26th African Union Summit.

R4 participants keep rainfall records from rain gauges in Balaka, Malawi. WFP / Erin Collins

In **Senegal**, 3,621 farmers accessed the R4 insurance product. Of these 3,388 obtained coverage through the Insurance for Assets (IFA) scheme, and the rest through the IFAD-funded project PADAER. Work on community assets was completed during the dry and rainy seasons in exchange for food vouchers and insurance. A total of 650 savings groups are currently active, while 15 saving associations in Tambacounda and Kolda accessed revolving credit for income-generating activities.

In **Malawi**, disaster risk reduction activities under the IFA component concluded in mid-October. A total of 500 farmers were able to get insurance coverage for the upcoming agricultural season in exchange for their work on road rehabilitation, fishpond construction, and marker ridges. A total of 1,800 participants were able to enroll in and get support through

Village Savings and Lending (VSL) groups as part of the efforts to rebuild 53 existing VSL groups and create 29 new ones.

In **Zambia**, a total of 499 R4 farmers completed land preparations on at least one hectare of land according to the conservation agriculture (CA) calendar, obtaining insurance coverage in return. In addition, 234 farmers obtained a loan input package to support their conservation agriculture (CA) activities. R4 is also supporting farmers in accessing more accurate and relevant climate information, as well as linking them with markets to sell their surplus produce.

This report provides an update on R4 activities from October to December 2015 and presents a case study on how R4 in Zambia is contributing to eliminating the barriers that limit uptake of CA by smallholder farmers.

Figure 1. R4 achievements

Payouts			 \$ 17,000	 \$ 320,000	 \$ 24,000	 \$ 38,000		
Value of premiums	 \$ 2,500	 \$ 27,000	 \$ 215,000	 \$ 275,000	 \$ 283,000	 \$ 306,000	 \$ 360,000	
Total sum insured	 \$ 10,200	 \$ 73,000	 \$ 940,000	 \$ 1,3m	 \$ 1,2m	 \$ 1,5m	 \$ 2,2m	
Farmers insured	 200	 1,300	 13,000	 18,000	 20,000	 26,000	 32,000	 40,000
Countries	Ethiopia	Ethiopia	Ethiopia	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Malawi Senegal Zambia	Ethiopia Malawi Senegal Zambia
	2009	2010	2011	2012	2013	2014	2015	2016

# STATUS SUMMARY

## ETHIOPIA

As the El Niño phenomenon peaked in strength over this quarter, it has been confirmed that the drought experienced as a result has been the worst the country has witnessed in the past 30 years, exceeding the levels of the 2011 Horn of Africa Crisis. In 50 of the 81 R4 villages, the early window index triggered, with payouts ranging from four to 100 percent. 19 villages out of the 50 are expected to receive payouts above 80 percent of the total payout for the early window, while 14 villages will receive the full 100 percent. The late window index has not triggered payouts in any of the villages in Tigray.

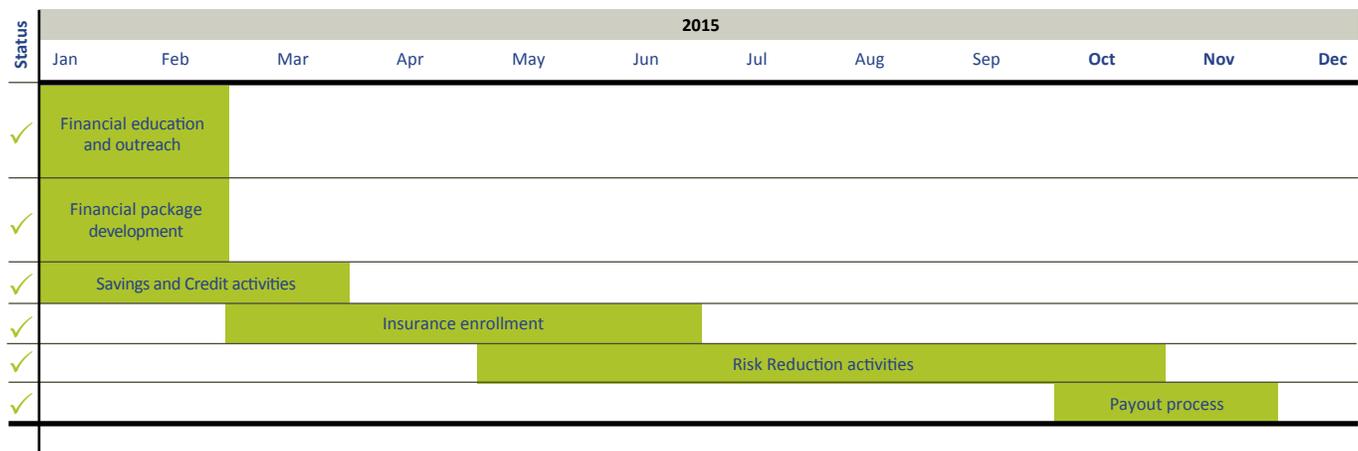
The preliminary results of the season assessments conducted by the International Research Institute for Climate and Society (IRI) show that the index responded well to late onset of the season in most villages. However improvements are needed to increase its responsiveness to early cessation. The preference of farmers - captured in the design of the index to give more weight (70 percent) for late window payouts' calculation over the early one (30 percent) - may have negatively affected the payout results. The end of season assessment, due in January, will be used to further refine the product.

In areas where the index has not adequately captured the situation on the ground, basis risk payouts<sup>2</sup> will be made from both a special community fund and a basis risk fund that has been set aside for that purpose. These payouts will be distributed at the same time as the insurance payouts.

Disaster Risk Reduction (DRR) activities were completed during this quarter, including compost-making and micro-gardening. Under the savings component, farmers continued their participation in their respective VSL groups and Rural Savings and Credit Cooperatives (RuSACCOs). Particularly, in Amhara, trainings on saving, credit, and small business were conducted.

During this quarter, as part of the learning efforts of the initiative, a two-day workshop focusing on the findings of the outcome level evaluation was held in Tigray. All major R4 stakeholders participated, including the Relief Society of Tigray (REST), WFP, OA, local government representatives, and R4 farmers.

Figure 2. R4 Ethiopia timeline for the 2015 agricultural season



2. Basis risk is the potential mismatch between the index-triggered payouts and the actual losses suffered by policy holders. It is an inherent problem to index insurance because of the diverse microclimates found within relatively small geographic areas. When the index does not capture adequately the situation on the ground, the R4 basis risk fund ensures that policy holders will still receive a compensation for their loss.



## MALAWI

Southern Africa has been severely affected by El Niño and Malawi has not been an exception. Drought and late onset rains have been characteristic of the El Niño season. The impacts will be hardest felt by those already affected by previous shocks, including the dry spells and flooding from earlier in the year. In this context, R4 is working to help people who have been affected in the project area cope with the shocks through its integrated risk management approach.

The risk reduction, risk transfer, and risk reserve activities are now fully operational, with final planning taking place for the implementation of the prudent risk taking and climate services components next year.

FFA activities concluded this quarter across all sectors, including agro-forestry, sustainable land and resource management, and irrigation. Under the IFA component, 500 farmers worked 14 days each to earn an insurance premium equivalent to \$9.5 (Malawian Kwacha-MK 7,000) in order to obtain a maximum coverage of \$70 (MK 51,395) at a 100 percent pay-out level.

IFA farmers, along with others from the FFA programme, also enrolled or re-enrolled in existing and new VSL (Village Savings and Lending) groups through which they have been saving and borrowing. During the reporting period, CUMO mobilized 29 new groups and helped rebuild 53 existing groups. In total, there are over 1,800 participants in the VSL groups. In mid-December, the groups completed their first cycle and shared out their funds, which amounted to over \$13,000 plus dividends of roughly 20 percent. This happened before the lean season, to support households during the period.

During this quarter, the WFP Global Framework for Climate Services (GFCS) project, operating in Balaka, began its year-long radio show aimed at improving the flow of agricultural and climatic information to farming households. R4 is building on these efforts and strengthening the linkages with the program to extend a set of specific climate services.

R4 Malawi has also designed a robust monitoring system to record and assess the performance of the index. A basis risk plan, campaign monitoring system, and claims and settlement procedure have all been developed as part of this system. The information collected will be used to inform future design and use of the index.

## ZAMBIA

Midway through the El Niño-affected season, drier than average conditions were widespread across Zambia, resulting in significant dry spells. Now, at the peak of the El Niño event, rains for the 2015-2016 growing season have yet to come, severely affecting crop production, and especially maize, the country’s staple crop.

In Zambia’s Southern Province, where R4 is implemented, the impacts of the event have been strongly felt. This is an area with high climate variability and a high correlation between yields and seasonal rainfall. To withstand these shocks, 499 R4 farmers in the camp of Kanchomba South have carried out land preparations (potholing and ripping) on at least one hectare of land according to the conservation agriculture calendar, receiving insurance in exchange. Farmers also completed lime and manure application, planting, and intercropping. Further, they participated in trainings on the principles of CA, land preparation, and weed control application.

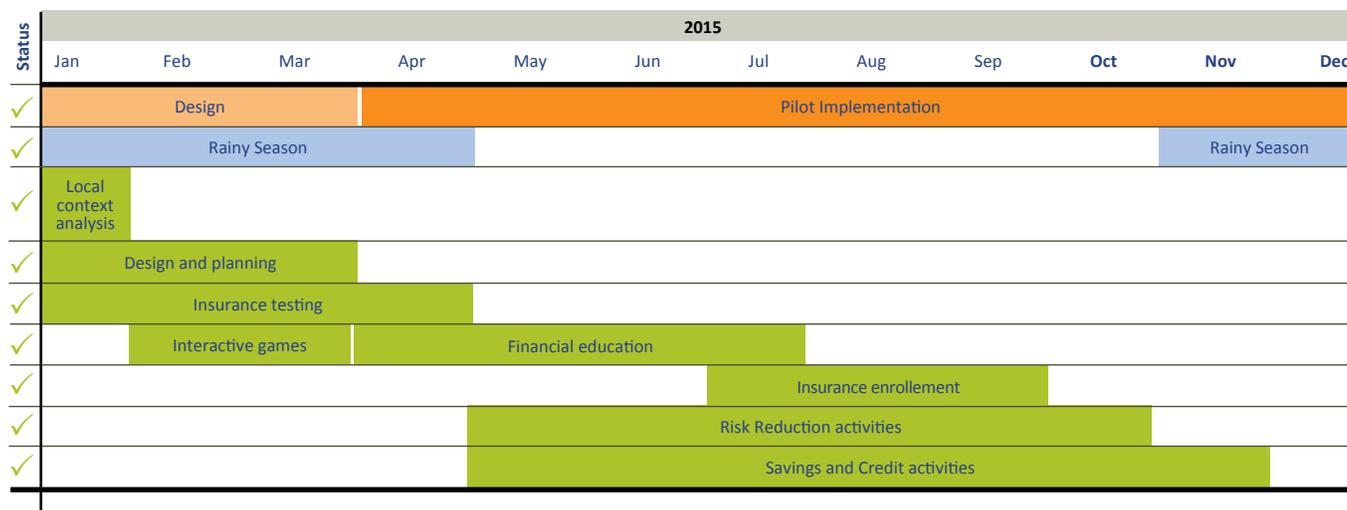
To strengthen participants’ understanding of weather index insurance and financial literacy skills, Mayfair, the insurer for R4 in Zambia, held trainings with all farmers participating in the component. The total land insured this year is of 685.5 ha and the total amount insured is of \$74,300 (846,525.28 Zambian Kwacha).

In support of index monitoring activities, an automatic weather station and manual rain gauges were installed in the project area. Lead farmers participating in R4 have been trained in the management of these rain gauges, to maintain the equipment and collect daily rainfall data. These skills will be important for the introduction of the climate information services component of the program.

A total 234 farmers have accessed input loans to support the application of improved agricultural practices. Moving forward, input loans in support of CA will continue to be offered and farmers who have paid off the original loan will gain access to other loan types for developing alternative income generating activities. The input packages are accessible through agro-dealers that also buy surplus cowpeas from the farmers, as part of the market linkages component of the programme.

For next year’s introduction of the saving component, focus group discussions were held with beneficiaries to better understand their view on savings and inform the design of the component. Savings activities will follow the OA Saving for Change (SfC) model. Capacity building on SFC will be carried out in 2016.

Figure 4. R4 Malawi and Zambia timeline for the 2015 agricultural season



# ACCOMPLISHMENTS THIS QUARTER

## METRICS FROM THE FIELD

### ETHIOPIA



#### Risk Reduction

#### Tigray

- 50 kg of tomato, 50 kg of cabbage, 50 kg of lettuce and 50 kg of onion seeds have been purchased and distributed among 1,058 households.
- 500 households in Tigray have received training on compost preparation.
- 2,058 pits for compost-making have been dug up by 1,190 households. The compost will be used mainly for growing vegetables in backyard plots.

#### Amhara

- Training was organized for 120 farmers (26 women) to improve their skill on compost preparation and its proper use for home gardening.
- 61 kg of tomato and cabbage improved seeds have been distributed among 268 households for home garden and micro irrigation.



#### Risk Transfer

#### Tigray

- The performance of the insurance index was evaluated using rainfall data collected by farmers managing rain gauges and the National Meteorology Agency's ground stations along with village-level yield estimates.
- According to the preliminary evaluation, the index was able to adequately capture loss in the early window, but work is needed to improve the responsiveness of the second window. A hybrid index using both Enhanced Vegetation Index (EVI) and ARC data tested this year was better at capturing the late window loss.
- The total early payout from the insurance mechanism amounts to \$129,899 over 50 villages; payout ranges from 4 percent to 100 percent.

- 19 villages have received above 80 percent payout for the early window. No payouts have been triggered for the late window.
- In response to the basis risk problem payouts from the community basis risk fund were calculated, following the indications of the R4 Ethiopia Basis Risk Strategy, for a total amount of \$234,195.

#### Amhara

- The insurance index did not trigger in Amhara and there was no payout for the season.
- The result was communicated with the farmers and they said that the season was one of the best they had and the insurance payout result matches their expectation.



#### Prudent Risk Taking and Risk Reserves

#### Tigray

- 2,408 farmers have saved \$10,119.42 (ETB 215,007) in the RUSACCOs and \$2,186.76 (ETB 46,462) in the VESAs.
- Regular savings in RUSACCO ranges from \$0.5 to 1.1 (ETB 11 to 22.5) per month.
- Savings in the VESAs ranges from \$0.14 to 1.4 (ETB 3 to 30) on a monthly basis.

#### Amhara

- \$4384.80 (ETB 92,853) has been saved by 1585 members households (344 women) organized in to 83 savings groups in the three villages.
- 923 (134 women) households have accessed internal loans amounting to \$6,006 (ETB 127,184) for small businesses, including grain trade, inputs purchase, other petty trade activities, and to cover unforeseen expenses like health care.
- 150 (57 female) households in Amhara participated in two-day trainings aimed at improving farmers' financial literacy focusing on saving and credit.

## METRICS FROM THE FIELD

### SENEGAL



#### Risk Reduction

##### Tambacounda

- 14,310 linear meters (LM) of stone bunds built in the old sites and 5,140 LM built in the new sites.
- 6 ha out of 20 ha of sand have been removed from the fields and stone bunds were built.
- 40,000 vetiver plants reforested.
- 3,500 LM of small dikes built in the old sites and 16,000 LM built in the new sites.
- 150 ha prepared for rice production leading to a total production of 360 MT.
- 6,071 participants received food vouchers in 2015 for a total amount of \$185,000 (CFA 111,488,100), out of which 1,488 received a supplementary distribution in November.

##### Kolda

- 345 MT of rain fed rice were cultivated in 115 ha of recovered land.
- Rice yields vary from 3 tons to 4 tons per hectare, depending on the site. The average yield obtained on all 10 sites is 3.5 MT/ha. Total production reached 414 MT of rice (20 percent increase).
- Run-off water mobilization works began. They will store rainfall water for rice crops and groundwater recharge.
- Assets built during the dry and the rainy seasons surpassed the planned targets:
  - 17,470 LM of small embankments separating rice plots (*diquettes de parcellisation*) built out of the 10,000 LM planned.
  - 1,665 LM of stone bunds built along the slope of valleys and ponds.
  - 2 wells built in Tamsir Sare and Sare Pathé Kamako, with 3 more being built in the market garden perimeters of Sare Sare, Demba, and Oumar Sy.
- Market gardening is practiced in all the sites of the R4 Initiative. This is an income-generating activity that allows women to increase their income and improve the food security of their households.

- 37 Kg of vegetable seeds for 14 hectares of market gardening distributed.
- 221 MT of food delivered to 1,993 participants (1,139 men and 854 women) in October 2015.

##### Kaffrine

- 164 ha were sown with rain-fed rice.
- Under the gardening production program, seeds of pepper, tomato and okra were distributed and sown in 15.4 ha.
- 372 MT of food were distributed for 3,755 participants.
- 1,398 farmers were trained in agricultural production innovative techniques.
- 5 runoff water mobilization works were rehabilitated.
- 6 market garden perimeters were fenced.
- 15,063 LM dikes of small embankments separating rice plots were realized, surpassing the annual target of 4,000 LM.
- 6,586 LM of stone bunds were built, surpassing the 1,000 LM target.
- Soil defense and restoration activities protected 195 ha of land in valleys and lowlands exposed to silting.
- 1 pond for livestock watering created.
- 458 MT of rice produced in 164 Ha. The yield varies from 3.4 to 1.9 MT/ha, depending on the sites.



#### Risk Transfer

- Total of 3,621 insured farmers in Kolda and Tambacounda. 3,388 farmers insured through the IFA scheme of which 1,236 were women, and 233 insured through the partnership with IFAD funded program PADAER.
- Overall, total premium amounts to \$87,103 (52,697,146 FCFA) and total sum insured \$592,888 (358,697,465 CFA).
- Under the IFA: total premium of \$70,975 (42,939,780 CFA) of which \$34,897 (21,082,390 CFA) was paid by WFP, \$640 (387,500 CFA) paid by famers, and the remaining 50 percent subsidized by the Government. IFA sum insured amounted to \$485,473 (293,711,064 CFA).

## METRICS FROM THE FIELD

- Under PADAER: Total premium: \$15,306 (9,183,366 CFA) of which \$1,463 (877,535 CFA) was paid by farmers.
- Under IFA, insurance was introduced for the first time in Kolda through a commercial insurance product covering rice (rainfall-based) developed by PG/CNAAS for the USAID-funded project Naatal Mbay.
- Out of the 3,388 IFA farmers, 287 were part of Naatal Mbay, located in 9 villages in the Medina el Haj area.
- Under Naatal Mbay the total premium was \$957 (574,000 CFA) and total sum insured: \$15,218 (9,130,601 CFA).

### Index monitoring

- All locations in Tambacounda, except Woundoudou Amirou, triggered. The index did not trigger in Kolda.
- Based on ISRA report, it seems Woundoudou Amirou is the location that received the least amount of rain in the area. Decision was taken to make basis risk payout in this location of 10 percent of sum insured.
- 3,334 farmers will receive a payout in the region of Tambacounda.
- Total payout will amount to \$80,969 (48,985,951 CFA)
- The total loss ratio is of 92.96 percent.

### Stock and livestock insurance

- 1 training organized on stock and livestock insurance products by CNAAS.
- An action plan for promotion and marketing of stock and livestock insurance products in place.
- Livestock insurance has been sold in R4 locations. Nine households bought 41 insurance policies.

### Result of *Institut Sénégalais de Recherches Agricoles (ISRA)* first report of the campaign

- 20 observers trained to conduct agronomic monitoring.
- 110 sites provided with rain gauges for monitoring rainfall.



### Risk Reserves

- 650 savings groups created since the beginning of the project (518 women groups and 132 male groups), engaging 16,089 members (12,997 women and 3,092 men).
- The cumulative current savings amount to \$125,194 (75,742,400 CFA).
- 10,970 members took out loans from the savings groups, the value of the loans portfolio amounts to \$110,002 (66,551,200 CFA).
- Working with CNAAS 11 associations of savings groups (10 in Tambacounda and 1 in Kolda) have been used as a delivery channel for insurance this year.
- 35 savings groups in Tambacounda shared their funds (\$27,015) to prepare for the rainy season.



### Prudent Risk Taking

- 40 cereal bank management committee members trained on stock management and warrantage.
- Under the revolving credit fund, 15 associations of savings groups in Tambacounda and Kolda accessed revolving credit for income-generating activities from IUMCEC (\$17,325).

**MALAWI**



**Risk Reduction**

Risk reduction works through 6 sectors of FFA, including water and sanitation, forestry, nutrition, land and soil management, irrigation, as well as gender and HIV.

- Water and sanitation:
  - Revamped and trained 44 Village Health Committees that actively participate in promoting water and sanitation activities in the area.
  - 16 boreholes have been maintained.
  - 1 borehole rehabilitated, benefitting 71 households.
  - 3 shallow wells built.
- Forestry:
  - 132,000 seedlings raised and shared among households for enhanced agroforestry and wood production.
  - 56 Village Natural Resources Management Committees revamped and trained.
  - 48 woodlots maintained and 33 new created.
- Nutrition:
  - 735 backyard gardens established.
  - Demonstration plots set up for drought resistant crops: cassava, sweet potatoes, sorghum, millet and pigeon peas.
  - 48 nutrition groups formed to train participants in food diversification, budgeting, food processing, preservation and utilization.
  - 9 fish ponds maintained.
- Land and soil management:
  - 2,040 m of swales done whereby 3.06 hectares of land are conserved.
  - 15,645 m of marker ridges whereby 234.7 hectares of land conserved.
  - 7430 composite manure pits done and applied by 1486 households.
  - Promotion and training on CA resulting in 351 plots under CA.
  - Ridge realignment promoted in all 5 GVHs.
  - 7 vetiver nurseries established.
- Irrigation:
  - Rehabilitation of Muthe Irrigation scheme, involving 40 out of 76 hectares of land where farmers grow rice.
  - 17 hectares of land was irrigated under micro irrigation scheme with different crops planted.

- 12 permanent shallow wells constructed.
- Farmers continuously trained in irrigation scheme operation and maintenance.
- Gender and HIV:
  - 4 Community-Based Organisations (CBOs) supported and trained.
  - Condom distribution and HIV testing and counselling conducted during gatherings and food distributions. This quarter 98 people tested (77 percent were women).
  - HIV and AIDS sensitization campaigns.

500 FFA participants worked 14 additional days on IFA-specific activities that included:

- Construction of 117,000 m of marker ridges.
- Rehabilitation of a fish pond, pending planting of vetiver grass due to lack of rainfall.
- 4 km of roads constructed. The remaining part of the road (1.5 km) was completed under FFA by 58 participants (36 women and 22 men).



**Risk Transfer**

- 500 farmers completed works on IFA, with a total premium of \$9,500 (MK 7,000).
- Total sums insured value of \$69,750 (MK 51,395).



**Risk Reserves**

- 29 new VSL groups and 53 re-vamped groups shared out on December 15.
- Shared amount was approximately \$13,524 (10 million MK) plus dividends of roughly 20 percent. Groups formed during the quarter, which are newer, did not share out. Other groups also decided to wait till the lean season to share out.
- In addition to the 82 groups, R4 expanded into an additional GVH in Silika, adding 560 participants to the program.
- Mapping and formation of new VSL groups was conducted in GVH Silika with a total of 32 new VSL groups established.

## METRICS FROM THE FIELD

### ZAMBIA



#### **Risk Reduction**

- Before the beginning of season and land preparations, a refresher course was conducted for 43 lead farmers and field staff members on the principles of CA.
- 499 farmers completed land preparation, mainly ripping and pot-holing.
- 295 did lime application .
- 174 applied manure.
- 499 conducted crop rotation and inter-cropping.
- 685 ha of land under CA in the R4 project area. Each participating household is on average applying CA in 1.4 ha of land.
- Training of 81 lead and follower farmers on herbicide application conducted during the quarter.



#### **Risk Transfer**

- 499 farmers applied CA on 1 or more ha of land and participated in CA trainings to gain access to the insurance component (236 men and 264 women).

- Total Sum Insured: \$74,300 (ZMW 846,525).
- Total Premium: \$9,213 (ZMW 104,969).
- Training of Trainers conducted on weather index insurance (WII) for 48 lead farmers and farmer club committee members, including topics on financial literacy, and farming as a business.
- Installation of manual rain gauges and 1 automatic weather station.
- 18 lead farmers trained on rainfall measurement and recording using manual rain-gauges.



#### **Prudent Risk Taking**

- 234 Farmers accessing input loans.
- Lime, cow peas, sugar beans, maize, fertilizer, and herbicides included in the input loan package.
- 41 solidarity groups with 5 to 10 people each have been formed by DAPP as the structure through which loans are accessed.
- Total Loan Value: \$71,778 (ZMW 817,791) and average loan per farmer: \$306.668 (ZMW 3,494).
- 283 lead and follower farmers participated in credit trainings by Vision Fund Zambia on financial literacy, farming as a business, loan structure and application, interest rates and repayment modes.



## R4 AND CONSERVATION AGRICULTURE IN ZAMBIA

In Zambia, seventy-three percent of farmers, or 15 million people, are smallholders, cultivating less than 2 hectares of land. They typically rely on rain-fed agriculture and are faced with constant challenges such as erratic rainfall, fragile soils, and poor market access. By increasing the frequency and intensity of shocks, climate change brings an additional challenge to farmers' long-term food security and wellbeing. In fact, evidence shows that the country experienced an increase in drought frequency and intensity in the last 20 years.

Conservation agriculture (CA), can be an important mechanism for adaptation to climate change. CA is mentioned in the *Zambian National Agricultural Policy 2004 – 2015* as an

approach that builds resilience to climate change and better food and nutrition security through improved soil and water management. Despite its potential, CA uptake among Zambian smallholders remains low, due to lack of access to initial inputs (such as quality seeds, inorganic and organic fertilizers, and tools), labor constraints, insufficient resources, and limited market linkages.

Starting this quarter, R4 is working to address these challenges, recognizing that CA's agro-ecological practices supporting sustainable farming systems, can reduce the impact of droughts and dry spell, minimize the need for inputs over time, and improve soil fertility and moisture retention.

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R4 participants prepare their land according to Conservation Agriculture practices, Zambia.

*WFP / Enoch Kavindele*

## CONSERVATION AGRICULTURE IN R4 ZAMBIA

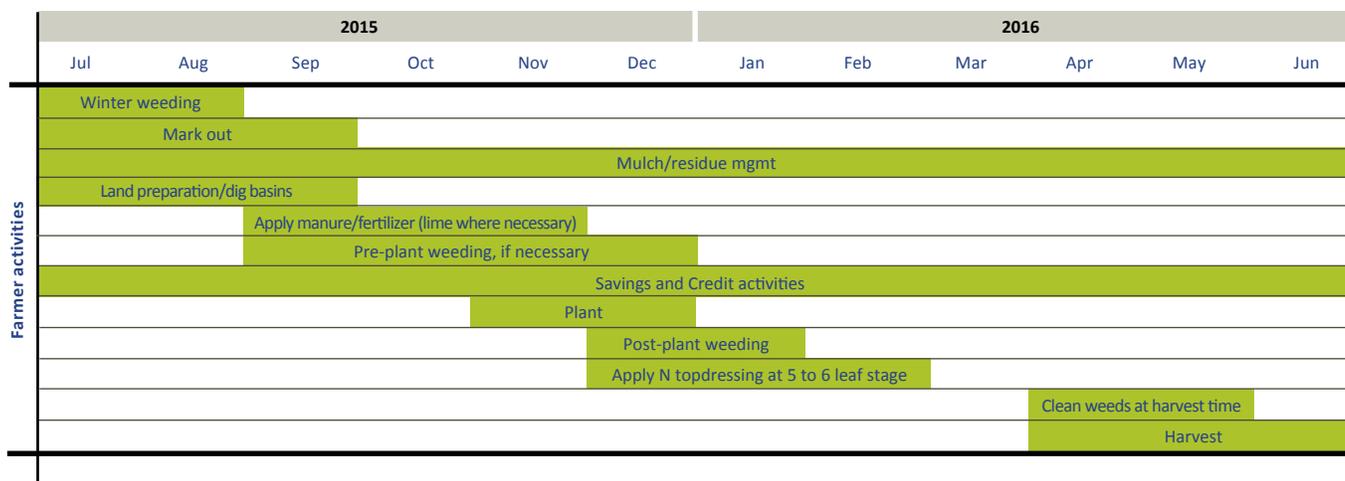
CA combines three cropping practices to help reduce erosion and water run-off, increase soil fertility and ultimately crop yields. These consist of **minimum or no-tillage** to reduce soil disturbance; **permanent soil cover**, using crop residues as mulch; and **crop rotations** with inter-cropping, especially with nitrogen-fixing legumes.

R4 is working to make CA a crucial component of rural households' climate risk management strategies to build their long term resilience. It will offer farmers applying CA on their

land access to other risk management components including insurance, savings and credit for agricultural productivity, as well as enhanced linkages to markets and climate information services.

Implementation of this approach began this year and has taken place in Pemba District, specifically the camp of Kanchomba South, where FAO and Ministry of Agriculture and Livestock (MAL) are implementing the Conservation Agriculture Scaling Up (CASU) project. R4 farmers participate in CASU as part of the risk reduction component of the program.

Figure 5. Indicative FAO CA Calendar of Activities 2015-2016 for Southern Africa



## HOW DOES CONSERVATION AGRICULTURE WORK?

CA is based on three key principles:

**Minimum Soil Disturbance:** CASU promotes the manual minimum tillage approach, which allows farmers to plant after the first effective rains when the basins have captured rainwater and drained naturally. Seeds are placed in each basin at the appropriate seeding rate and covered with clod-free soil. The advantage of using basins is that they capture water as soon as the wet season starts and enable precision application of both organic and inorganic fertilizer directly into the pit for maximum efficiency.

**Retention of Crop Residues** improves soil organic matter and soil structure. Soil organic matter allows microbes responsible for nitrogen fixation, to thrive and improve soil fertility.

As a result, the use of inorganic fertilizers is reduced over time. The same applies for herbicides through regular weeding, which together with mulching, progressively limits weed growth.

**Crop Diversification and Inter-cropping**, especially including legumes such as cowpeas and sugar beans. This technique helps managing pests, by interrupting the infection chain between subsequent crops and making full use of the physical and chemical interactions between different plant species. To the extent that a new balance between the organisms of the farm-ecosystem, pests, crops and weeds, becomes established and the farmer learns to manage the system, the use of synthetic pesticides and mineral fertilizer tends to decline to a level below that of the original farming system, while allowing for improvements in the productivity of the system.

### Progress Achieved

R4 and partners - FAO, NGO Development Aid from People to People-DAPP launched the CA activities through an intense awareness campaign and by strengthening and creating structures at the rural level, such as farmer clubs.<sup>4</sup>

By successfully applying CA techniques, a total of 499 farmers, 270 women and 229 men, accessed R4 insurance coverage, covering 685.5 ha of land. Insurance is intended to safeguard their investment in CA through critical phases in the growing period, as well as act as an incentive to adopt these practices. Matching the growing calendar of the crops cultivated by farmers, including maize, cowpeas, and sugar beans, the insurance covers two growing periods: January 1 to 31 and February 11 to March 10. Should there be insufficient rain during these windows, insured farmers will receive timely compensation, to meet their food and income gap.

Through a partnership with Vision Fund Zambia (VFZ), R4 farmers have access to input loans in support of their application of CA. Cow peas, sugar beans, and maize seeds, as well as lime fertilizer, are all part of the input loan package. 234 farmers accessed the loan through their solidarity groups by requesting an invoice from local agro-dealers. The invoice is sent to VFZ who pays for the products that are then released to farmers. The average loan amount is \$4,200 – 5,700 per group. In total, the amount disbursed is over \$38,000. Most groups are composed of women, who are benefiting from the loan package.

The loan repayment timeframe is 9 months. Farmers who repay their loans are able to access other loan products from VFZ for further livelihood strengthening and diversification. CASU/R4 farmers also receive support to strengthen their savings mechanisms through existing solidarity groups, using the Saving for Change (SfC) model. Savings are expected to help farmers meet their smaller needs, usually related to household consumption.

The input packages are accessible through agro-dealers that also buy surplus cowpeas from the farmers, as part of the market linkages component of the program. In addition, farmers can sell surplus cowpeas to WFP's P4P (Purchase for Progress) collection centers, through which WFP locally procures crops from smallholders for its school feeding programs. Enhanced market linkages provide farmers with the opportunity to sell their products at a good price, therefore supporting their investment in agriculture. In the case of credit recipients, they also facilitate loan repayment.

### Going forward

Forecasts suggest that the current El Niño phenomenon could be the strongest since records began in the 1950s and is likely to reach maximum strength between December 2015 and February 2016. Because of the high proportion of people who depend on rain-fed agriculture, Zambia has been identified as one of the most vulnerable countries. WFP is closely following the impact of the drier conditions on farmer's food and income security, with a keen interest to determine if R4 effectively enables households to manage climate risk and build long term resilience.

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4. Farmers' clubs consist of 20 to 40 members regrouping 2-3 Lead Farmers and their respective follower farmers. They will serve as a platform to share experiences, challenges, and solutions including accessing credit, markets, extension services and other services as a group.



## CONCLUSION

The current year has been characterized by widespread climate variability and dry conditions in R4 countries. Where the agricultural season is more advanced, like in Ethiopia and Senegal, the index has triggered payouts to compensate farmers for losses. In both Malawi and Zambia, the agricultural season began this quarter, and similarly to the other R4 countries conditions have not been favorable. With three out of four R4 components in place in both countries, farmers have been able to access the risk management services of the Initiative

and should be better able to cope with the El Niño event. The positive impacts and the successful expansion of R4 have been recognized in the context of the UN Climate Negotiations (COP-21) that took place in December. The UN Secretary General's statement announcing his new climate resilience initiative (A2R) highlights R4 as a leading example in the combination of insurance and social protection to address the challenges posed by climate change. Food security and building people's resilience to climate change is central to the Paris Agreement.

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Women participating in a Saving for Change group meeting in Tambacounda, Senegal.  
WFP / Azzurra Massimino

# APPENDIX I: R4 PARTNERS AND INSTITUTIONAL ROLES

## OUR LOCAL/NATIONAL PARTNERS IN ETHIOPIA

- **Africa Insurance Company:** Private insurer in Ethiopia operating in the Tigray, Amhara, and Oromiya regions.
- **Dedebit Credit and Savings Institution (DECSI):** Second-largest microfinance institution (MFI) in Ethiopia with nearly comprehensive coverage of Tigray. Named by Forbes magazine as one of the top 50 MFIs in the world.
- **Ethiopian Farmers' Cooperative:** Primary organizing body for farmers in the community.
- **Ethiopian National Meteorological Agency (NMA):** Agency offering technical support in weather and climate data analysis.
- **Institute for Sustainable Development (ISD):** Research organization dedicated to sustainable farming practices.
- **Mekelle University:** Member of the National Agricultural Research System providing agronomic expertise and research.
- **Nyala Insurance Share Company:** Private insurer in Ethiopia with a strong track record of interest in agricultural insurance.
- **Organization for Rehabilitation and Development in Amhara (ORDA):** Established in 1984 with a focus on natural resource management, food security and agricultural development in Amhara.
- **Relief Society of Tigray (REST):** Local project manager for HARITA, responsible for operating the Productive Safety Net Program (PSNP) in six districts of Tigray and overseeing all regional coordination. Established in 1978. Working with Oxfam since 1984 on development issues. Largest nongovernmental organization in Ethiopia (and one of the largest in Africa).
- **Tigray Regional Food Security Coordination Office:** Office with oversight of the PSNP in the pilot area.
- **Tigray Cooperative Promotion Office:** Office responsible for helping organize farmers at the village level.

## OUR LOCAL/NATIONAL PARTNERS IN SENEGAL

- **Agence Nationale de Conseil Agricole et Rural (ANCAR) - National Agency for Rural and Agricultural Assistance.** Technical agency affiliated with the Ministry of Agriculture. In Koussanar, it is responsible for leading community awareness and mobilization activities, and providing seeds as well as technical advice to farmers. Like PAPIL and INP (listed below), ANCAR is a key partner for the Risk Reduction component.
- **Agence Nationale pour l'Aviation Civile et de la Météorologie (ANACIM) - National Meteorological and Civil Aviation Agency.** ANACIM helps with the design of insurance product(s) by providing historical and current climate data, and installing and maintaining weather stations.
- **Union des Institutions Mutualistes d'Epargne et de Credit (U-IMCEC) - Savings and Credit Cooperatives' Union.**

A microfinance institution with which we are currently implementing the risk taking component particularly the warrantage and other financial products tailored to the needs of rural women. It is a growing institution seeking to expand its network in rural areas especially.

- **Compagnie Nationale d'Assurance Agricole du Senegal (CNAAS) - National Agricultural Insurance Company of Senegal.** Senegal's only agricultural insurance company (public-private company founded in 2008 by the government). It is the insurance provider for the product(s) offered under the Risk Transfer component.
- **Institut National de Pédologie (INP) - National Institute for Pedology.** Technical agency affiliated with the Ministry of Agriculture, in charge of soil conservation and restoration projects, including building stone bunds and check dams, and composting.
- **BAMTAARE.** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Tambacounda.
- **PASA.** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kongehuel.
- **Caritas Kolda.** Religious organization carrying out DRR projects on access to water and sanitation, production and processing, and migration management, and leading voucher distribution in Kolda.
- **La Lumière.** A grass-root Senegalese NGO which provides financial services to low-income rural households. It is the current implementation partner for Oxfam's Saving for Change program in Senegal, and the implementation partner for the Risk Reserves component.
- **Projet d'Appui à la Petite Irrigation Locale (PAPIL) - Project to Support Small Local Irrigation.** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kolda.
- **PlaNNet Guarantee.** Insurance broker specializing in micro-insurance for development and poverty reduction. In Koussanar, it helps CNAAS commercialize R4's insurance product(s) by conducting awareness-raising and marketing activities among clients.
- **Regional Research Centre for the Improvement of Drought Adaptation (CERAAS).** CERAAS helps with the design of insurance product(s) by helping create the rainfall index (including by contributing to studies on the use of remote sensing tools), and by carrying out crop monitoring.
- **Université Gaston Berger de Saint Louis (UGB).** The second university established in Senegal, specialized in Social Sciences, Economics and Business Management, Political Science and Applied Science. UGB provides the enumerators for FERDI's Risk Transfer studies.

## OUR LOCAL/NATIONAL PARTNERS IN MALAWI

- **Balaka District Council.** The local government administrative authority responsible for the implementation of FFA in the district, which includes activities like community mobilization and training, distribution of project inputs, supervision and monitoring, as well as liaising with other relevant District authorities.
- **Concern Universal (CU).** Long term presence in the country with a strong community-oriented approach, and experience in agriculture and savings projects. Supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.
- **CUMO Microfinance.** A well-established microfinance institution in Malawi with the widest rural outreach which seeks to improve low income entrepreneurs with access to sustainable and integrated financial services to unlock their potential. Responsible for the delivery of the risk reserves and saving components of R4 and provides operational support on insurance.
- **Department of Disaster Management Affairs (DoDMA).** An institution mandated to plan, coordinate and monitor disaster risk reduction, preparedness and response activity in country. Provides overall strategic oversight and guidance for R4 in Malawi and supports R4 implementation and coordination through its local structures.
- **Insurance Association of Malawi.** An association of technical experts in the insurance. Approver of insurance products and manages insurance risk in the insurance market.
- **Malawi Meteorological Department.** Responsible for climate change assessments, weather forecast, early warning information and works in collaboration with DoDMA and MOA in the dissemination of early warnings to the people of Malawi.
- **Ministry of Agriculture (MOA).** Responsible for agriculture policies and programs at national and local level. It supports provision of extension services in the R4 project areas.
- **Ministry of Finance Economic Planning and Development (MoFEP&D).** Oversees the National Social Support Policy that governs the establishment of sub-programs including Social Cash Transfer Scheme (SCTS), Public Works Programme (PWP), School Meals, Village Savings and Loans (VSL) and Microfinance. Strategic partner to establish technical and operational synergies with existing programs.
- **NICO Insurance Company.** Main insurance underwriter for index-based insurance products in Malawi.

## OUR LOCAL/NATIONAL PARTNERS IN ZAMBIA

- **Development Aid from People to People (DAPP).** Key R4 implementation partner with a strong community-oriented approach, long-lasting presence in the country, and experience in agriculture and savings projects. Ensures collaboration with Food and Agriculture Organization (FAO) and Ministry of Agriculture and Livestock (MAL) implementing the Conservation Agriculture Scaling Up (CASU) program.

- **Disaster Management and Mitigation Unit (DMMU).** The central planning, coordinating and monitoring institution for all Disaster prevention, preparedness and response activity implementation in the country. Supports R4 implementation and coordination at national level through the Disaster Management Consultative Forum (DMCF) and at local level through the Office of the District Commissioner.
- **Food and Agriculture Organisation (FAO).** Implements the CASU program together with the Ministry of Agriculture and Livestock (MAL), which aims at increasing crop production and productivity while at the same time ensuring sustainable use of natural resources amongst farmers practicing Conservation Agriculture (CA).
- **Ministry of Agriculture and Livestock (MAL).** Implements the CASU program together with FAO, and provides extension services to farmers.
- **Vision Fund Zambia Limited (VFZ).** Zambia's second largest microfinance institution with the widest rural outreach. VFZ offers credit, operational support on insurance and supports financial education trainings as part of R4.

## OUR GLOBAL PARTNERS

- **Fondation pour les Etudes et la Recherche sur le Développement International (FERDI) - Foundation for Studies and Research in International Development.** The Foundation for International Development Study and Research was created in 2003 on the initiative of CERDI- the *Centre d'Etudes et de Recherches sur le Développement International (Université d'Auvergne, France)* to support research in the field of international economic development.
- **Goulston & Storrs, and Weil, Gotshal & Manges:** Law firms providing pro bono legal expertise.
- **Index Insurance Innovation Initiative (I4) at University of California, Davis (UC Davis):** Research partnership on index insurance between academia and development organizations, with UC Davis, the Food & Agriculture Organization, International Labour Organization, and the US Agency for International Development.
- **Swiss Re:** Global reinsurer and leader on climate change advocacy with funding and technical expertise.
- **The International Fund for Agricultural Development (IFAD):** A specialized agency of the UN focused on rural poverty reduction, hunger and malnutrition.
- **The International Research Institute for Climate and Society (IRI):** Member of Columbia University's Earth Institute offering research and technical expertise in climate data and weather index design for rural farmers.

# APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
What are the concrete building blocks that should be considered in the resilience framework.	Daniel Longhurst and Hussein Madh (WFP)	DFID and LTS International (Consultants).	Presentation on DFID commissioned studies 1)Lessons learnt from the current Enhancing Community Resilience Programme; 2) Social Protection; 3) Political Analysis; 4) Market opportunities on solar; 5)Review of the MGDs and process; 6) Economies of climate change.	LTS International, European Union, USAID, Concern Universal, UNDP, UNICEF, World Bank, Irish Aid.	Lilongwe, 9 December 2015
Comité pour le Développement et la Promotion de l'Assurance Indicielle.	Mathieu Dubreuil (WFP) organiser; William Dick (IFAD/WFP), Presenter	WFP Senegal Country Office.	Presentation to Stakeholders in Senegal insurance, development and research institutions on the project to test remote sensing methodologies for insurance applications for smallholders.	WFP, IFAD, VITO, Planet Guarantee.	Dakar, 8 December 2015
Innovations in Index Insurance to Promote Agricultural and Livestock Development in Ethiopia.	Teshome Erkneh (WFP), Panelist	International Food Policy and Research Institute (IFPRI), International Livestock Research Institute (ILRI), Index Insurance Innovations Initiative (I4).	Review experiences of several recent index insurance pilots; discuss alternative institutional approaches for reaching out to farmers and pastoralists; discuss the prospects for scaling up these index insurances projects; analyze the role of public support for index insurance; and assess the potential role of the public and private insurance and financial sectors.	Representative of US Universities, USAID, Ethiopian insurance companies (Nyala) and service providers (Kifya), ILRI, IFPRI.	Addis Ababa, 3 December 2015.
Understanding Risk and Finance Conference.	William Dick (IFAD/WFP), Presenter	The World Bank.	Presentation on the IFAD/WFP remote sensing research project for smallholders in Senegal in the workshop "Introduction to remote sensing for financial protection of African farmers".	World Bank, Netherlands Space Office, Kifiya Financial Technology, ILRI, IFAD/WFP.	Addis Ababa, 25 November 2015
National Agriculture Index Insurance Working Group.	Munaye Tesfaye (OA), Presenter; Ezgimelese Tecleab (WFP), Facilitator; Teshome Erkneh (OA), Facilitator	International Labour Organisation, Oxfam America, World Food Programme.	The establishments of the group was initiated by Oxfam and WFP to share current experiences, discuss concepts, strategy and ToR of the NAIWG. The major goal of the NAIWG is to support national actors in reaching the scale and sustainability of agricultural insurance in Ethiopia. This is to be done through facilitation of stakeholders capacity building, experience sharing/knowledge management and advocacy.	Over 30 participants from Oxfam, WFP, ILO, insurance companies, technology service providers, donor agencies and government stakeholders, including the Disaster Risk Management and Food Security Sector of the Ministry of Agriculture (DRMFSS).	Addis Ababa, 10 November 2015
SEEP conference.	Prince Zulu (WFP), Derick Ndimbwa (WFP)	SEEP Conference 2015.	Leveraging community-led savings groups for developmental initiatives.	Practitioners, academicians, development partners and policy makers.	Lusaka, 6-7 November 2015
Pro-Poor Microfinance Technical Working Group Meeting	Hussein Madh (WFP), Presenter	Pro-Poor Microfinance Technical Working Group.	Review Progress on the Pro-poor best practice guidelines.	GIZ Ministry of Finance, Economic Planning and Development Reserve Bank of Malawi Umunthu Microfinance FINCA Microloan Foundation Vision Fund CUMO MAMIN.	Lilongwe, October 2015

# APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Agriculture Joint Sector review Meeting.	Daniel Longhurst (WFP)		<ul style="list-style-type: none"> <li>How to ensure farmers are more resilient to climate shocks, with El Nino in mind. How to break</li> <li>How to maximize investments in ag sector, including through improved M+E ARC.</li> </ul>	Malawi Government line ministries, Development Partners, Private Sector and International NGOs.	Lilongwe, October 2015
The Role of Public-Private-People-Partnerships in Building the Resilience of Vulnerable Communities.	Richard Choularton (WFP), Darius Teter (OA), Penalists	WFP & Oxfam America.	Present the impact of public-private-people-partnerships in empowering vulnerable women and men to manage risk and thrive in the face of climate shocks.	Government officials, academia and implementers of R4.	New York, 9 September 2015
Paris 2015 Global Index Insurance Conference: Building Innovative Solutions in Agriculture.	Sophia Belay (OA), Mathieu Dubreuil (WFP), Panelists	GIIF, World Bank Group.	Assess the situation and potential for index insurance as an industry. The round table focused on the role of international organisations in the development of index insurance.	Stakeholders in the index insurance industry: donors, reinsurers, insurers, multi and bilateral institutions, IT providers.	Paris, 14-15 September 2015
Atelier de capitalisation des bonnes pratiques sous le thème: "De la Protection Sociale à la Promotion Economique Inclusive".	Carla De Gregorio (WFP), Panelist	Delegation General a la Protection Sociale et a la Solidarité Nationale (DGPSN), WFP and French Coopération.	Development of productive assets, financial inclusion and value chains approach and resilience.	Representatives of stakeholders (government, private sector, civil society, representatives of technical and financial partners) involved in the implementation of ongoing interventions (FAO, WFP, CNAAS, PADAER, CNCAS).	Dakar, 15-16 June 2015
"Enhancing food security and resilience to climate change: what role for microfinance?" - 12th "University Meets Microfinance" Workshop.	Sophie Romana (OA), Panelist	European Microfinance Platform (e-MFP) Action Group.	To debate about the relationship between climate change, food security and microfinance. Innovative financial services were presented and discussed in order to understand their potential to mitigate the impact of climate change on smallholder farmers and ensure food security.	Practitioners and academicians.	Bergamo, 11-12 June 2015
"Climate Smart Agriculture Advantage: better returns for smallholders". Bonn Climate Change Conference - 42nd session of the Subsidiary Body for Scientific and Technological Advice.	Rupak Manvatkar (WFP), Presenter	United Nations Framework Convention on Climate Change.	The UN's Rome Based Agencies showcased the latest results from the field in working with farmers in developing countries to adapt to climate impacts.	UN Agencies, Governments, NGOs.	Bonn, Germany, 1-11 June 2015
Working Group meeting of the Global Action Network on agricultural insurance.	William Dick (WFP), Panelist	ILO, USAID and UC Davis through the Global Action Network.	To discuss key issues and arrive at specific outputs on the topics of contract design, risk pricing, and market development and consumer education.	Insurance experts and practitioners.	London, UK, 28-30 April 2015

# APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Realizing Rural Resilience and Inclusive Growth by Reducing Risk: Is Agricultural Insurance the Key?	Richard Choularton (WFP), Presenter	USAID.	To discuss the potential for agricultural insurance to promote resilience and inclusive agricultural growth as part of an integrated risk management approach.	Governments, NGOs, international organizations, civil society representatives.	Washington DC, US, 23 April 2015
Creating an Action Agenda for Private-Sector Leadership on Climate Change	Jonathan Jacoby (OA), Panelist	UN Foundation and CERES.	To discuss how the private sector is advancing climate solutions in the lead-up to the COP21 climate talks this December in Paris. It also highlighted the importance of robust climate finance for resilience/adaptation on the "Road through Paris" and highlighted the R4 Rural Resilience Initiative as a model.	Representatives from private sector, government, and civil society.	Washington DC, 22 April 2015
Agricultural Insurance Workshop Day.	Mathieu Dubreuil (WFP), Presenter	USAID.	To gather all actors working on Agricultural Insurance in Senegal and discuss potential collaboration.	Government representatives, NGOs, UN agencies.	Dakar, Senegal, 1 April 2015
Third UN World Conference on Disaster Risk Reduction.	Richard Choularton (WFP), Presenter	United Nations General Assembly.	To facilitate the development of a post-2015 framework on disaster risk reduction.	Governments, NGOs, international organizations, civil society representatives.	Sendai, 14-18 March 2015
Global Climate Observing systems (GCOS) Workshop.	Tania Osejo (WFP), Presenter	United Nations Framework Convention on Climate Change.	To share experiences on climate services to reduce vulnerability in food insecure population while enhancing resilience capabilities.	Parties to the Convention, UN bodies, and institutes working on climate / weather data and observational needs in climate services.	Bonn, Germany, 10-12 February 2015

# APPENDIX III: MEDIA CITATIONS AND RESOURCES

## IN THE NEWS

- UN Secretary-General's initiative aims to strengthen climate resilience of the world's most vulnerable countries and people: <http://www.un.org/sustainabledevelopment/blog/2015/11/un-secretary-generals-initiative-aims-to-strengthen-climate-resilience-of-the-worlds-most-vulnerable-countries-and-people/>
- R4's achievements on gender were illustrated in a case study in the World Bank, IFAD, FAO's report "[Gender in Climate Smart Agriculture](#)".
- Climate Change The New Economy (CCTNE), Green Awards, UNFCCC, "[G7 Climate Change: The New Economy](#)" (June, 2015).
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- The International Research Institute for Climate and Society. [Using Satellite Data to Improve Index Insurance](#) (August 2014).
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- Sénégal – Humanitaire, "[Lancement au Sénégal d'une initiative de résilience rurale](#)", SousLeManguier (Nov. 14, 2012).
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- Stephan Faris, "[Seeds for Change](#)", Time (Sept. 24, 2012).
- Lisa Friedman, "[Companies Begin to See Necessity and Profits in Adapting to Climate Change](#)", ClimateWire (July 11, 2012).
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## STORIES/BLOGS

- [“Putting the missing “p” in public-private-partnerships: Lessons from the R4 Rural Resilience Initiative”](#)
- [“Dear G7 Leaders: Insurance is hardly enough. Trust us, we know from experience”](#)
- [“Ethiopian Farmers Get a Payout, Easing Effects of Drought”](#)
- [“With Insurance, Loans, and Confidence, This Ethiopian Farmer Builds Her Resilience”](#)
- [“In Northern Ethiopia, Weather Insurance Offers a Buffer Against Drought”](#)
- [“Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought”](#)
- [“Medhin Reda’s Best Asset Is Her Own Hard Work”](#)
- [“Gebru Kahsay Relies on Rain But Has the Security of Insurance”](#)
- [“Selas Samson Biru Faces Uncertainty with the Seasons”](#)

## VIDEOS/MULTIMEDIA

[Africa's Last Famine](#), a documentary co-produced by Oxfam America and Link TV, featuring HARITA

[R4: The Rural Resilience Initiative](#)

*A Tiny Seed and a Big Idea*

*A New Tool for Tackling Poverty*

## PHOTOGRAPHY

Project photos are available upon request. See examples of photos used in the enclosed quarterly reports.

## PARTNER REPORTS

- [IRI FINAL 2013 End of Season Assessment Report](#): This report provides an assessment of the 2013 rainfall season for the R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2013 indices.
- [HARITA IRI Updated 2012 HARITA Initial End of Season Assessment October 2012](#): This report is a deliverable by the International Research Institute for Climate and Society (IRI) to Oxfam America. It provides an early, exploratory assessment of the 2012 rainfall season for the HARITA/R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2012 indices.
- [HARITA IRI Report to Oxfam America March 2012](#): This report is a deliverable by the IRI to Oxfam America on the 2012 index development processes and presents the final indices offered in the project villages.
- [HARITA IRI Report to Oxfam America May 2011](#): This report is a deliverable by IRI to Oxfam America on the 2011 index development processes. It provides a description of the indices, their structure, their data sources, the design process, and action plans for the project as well as a separate section with the educational materials used to support the 2010/2011 index development process.

- [HARITA IRI Report to Oxfam America June 2010](#): This progress report is a formal deliverable by IRI to Oxfam America and presents an overview of the scalable index insurance product development process for the 2010 growing season. It explains the economic risk simulation games conducted with farmers to understand their risk-management decisions/preferences and also to educate them about index insurance packages.
- [Technical Annex: HARITA IRI Report to Oxfam America June 2010](#): IRI has been working to build a formal statistical methodology that will systematically compare and integrate information on remote sensing of rainfall, ground-based data measurements, and other data sets. This report presents a preliminary analysis that focuses on Adi Ha—the pilot village—modeling rainfall at five neighboring sites, where daily rainfall amounts have been recorded during different intervals for each site over the course of a 49-year time period, from 1961 to 2009. This methodology is intended to be further developed and packaged into tools for contract design and evaluation.
- [HARITA IRI Report to Oxfam America October 2010](#): This progress report is a formal deliverable by IRI to OA that summarizes the 2011 scaling process and presents the education materials developed to support the scaling process.

## OTHER REPORTS

- Million Tadesse and Marjorie Victor, “Estimating the Demand for Micro-Insurance in Ethiopia,” Oxfam America (2009). A report commissioned by the International Labour Organization and the United Nations Capital Development Fund.
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- Tufa Dinku et al., “Designing Index-Based Weather Insurance for Farmers in Adi Ha, Ethiopia,” IRI (2009). Report to Oxfam America.



# Collaboration

The R4 Rural Resilience Initiative is a strategic collaboration between the World Food Programme and Oxfam America, with no commingling of funds. Each partner has its own sponsors as listed. R4 is inviting donors to support expansion.



The World Food Programme is the world's largest humanitarian agency fighting hunger worldwide.

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