

# R4 Rural Resilience Initiative

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**World Food  
Programme**







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# Acronyms

AIR	Annual Impact Reflection
CA	Conservation Agriculture
CASU	Conservation Agriculture Scale Up Project
CHIRPS	Climate Hazards Group InfraRed Precipitation with Station data
CNAAS	Compagnie Nationale d'Assurance Agricole du Sénégal
DAPP	Development Aid from People to People
DRMFSS	Disaster Risk Management and Food Safety Sector
DRR	disaster risk reduction
EVI	Enhanced Vegetation Index
FCS	Food Consumption Score
FEG	Food Economy Group
FFA	Food Assistance for Assets
FGD	focus group discussion
FHH	female-headed household
GFCS	Global Framework for Climate Services
GVH	Group Village Head
HARITA	Horn of Africa Risk Transfer for Adaptation
HEA	household economy approach
IFA	Insurance for Assets
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IGA	income generating activity
ILO	International Labour Organization
IRI	International Research Institute for Climate and Society
M&E	monitoring and evaluation
MFI	micro finance institution
NGO	non-governmental organization
PADAER	<i>Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise Développement Agricole et à l'Entreprenariat Rural</i>
PSNP	Productive Safety Net Programme
OA	Oxfam America
ORDA	Organization for Rehabilitation and Development in Amhara
REST	Relief Society of Tigray
RUSACCO	Rural Savings and Credit Cooperative
SfC	Saving for Change
TOC	Theory of Change
WII	Weather Index Insurance
WFP	World Food Programme
VESA	Village Economic and Social Associations
VFZ	Vision Fund Zambia
VSLG	Village Savings and Loan Group



Corn left to dry in Sinthiou Demba Deme in Koussanar, Senegal.  
WFP / Fabio Bedini

## Executive Summary

In 2016, the R4 Rural Resilience Initiative (R4) grew in Malawi and Zambia, expanding from 500 participants in each country, to a total of 5,195 participants, exceeding the initial target of 5,000 farmers. In Ethiopia, R4 reached 29,127 farmers and their families, while in Senegal 7,563 farmers participated in the program in 2016. Overall, 41,867 farmers participate directly in R4 while over 200,000 people benefit from it in four countries, namely, Ethiopia, Senegal, Malawi, and Zambia with its comprehensive risk management approach. In 2017, the initiative will expand to Kenya and Zimbabwe with an initial target of 1,000 participants in the former and 500 participants in the latter.

In September 2016, the final impact evaluation of R4 in Senegal was published, showing how the initiative was successful in limiting the negative impacts of climate shocks on the food security of participating farmers' households.































In the last quarter of the year, the index triggered payouts amounting to US\$ 73,463 for R4 participants in Ethiopia and Senegal. In Ethiopia, following tests during the 2015 agricultural season, a new hybrid index combining rainfall estimates (ARC2) with a vegetation index was implemented, which captured more accurately the situation on the ground compared to an ARC2 only index.

*This year we were able to share 4 million francs in our group. I think this is the first time that a SfC group has been able to mobilize so much money. The women are brave, they have not wasted their money, because each one is active in small shops or restaurants and pays for certain household expenses. Our funds come from our savings and also from the revolving credit set up by R4. As an Association, we have acted as an intermediary for insurance (registration, distribution of insurance coupon, payment of indemnities) and the project via CNAAS paid us a commission for this work. This project has strengthened our capacities, making us actors in development. I would say we are able to go far, very far indeed!*



R4 participant  
in Jokaré Endam,  
Tambacounda

FIGURE 1. R4 Achievements

Payouts			 \$ 17,000	 \$ 320,000	 \$ 24,000	 \$ 38,000	 \$ 450,000	 \$ 74,000
Value of premiums	 \$ 2,500	 \$ 27,000	 \$ 215,000	 \$ 275,000	 \$ 283,000	 \$ 306,000	 \$ 370,000	 \$ 781,000
Total sum insured	 \$ 10,200	 \$ 73,000	 \$ 940,000	 \$ 1,3m	 \$ 1,2m	 \$ 1,5m	 \$ 2,2m	 \$ 5,1m
Farmers insured	 200	 1,300	 13,000	 18,000	 20,000	 26,000	 32,000	 42,000
Countries	2009	2010	2011	2012	2013	2014	2015	2016
	Ethiopia	Ethiopia	Ethiopia	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Malawi Senegal Zambia	Ethiopia Malawi Senegal Zambia

Our vision: 500,000 insured farmers in 2020.

# Foreword by Kenn Crossley

On 1 January 2016, the world officially began the implementation of the 2030 Agenda for Sustainable Development - the transformative plan of action based on 17 Sustainable Development Goals (SDG) to address urgent global challenges over the next 15 years. The 2030 Agenda conveys the global commitment to end poverty, hunger and inequality. Furthermore, it encompasses humanitarian and development activity situated within the broader context of human progress and sustainable development to achieve peace and prosperity for all.

Human progress and sustainable development are threatened by a myriad of risks. Amongst them, climate risks are becoming increasingly harmful. For millions of people across Africa, Asia and Latin America, climate change means more frequent and intense floods, droughts and storms, accounting each year for up to 90 percent of all natural disasters. To better equip communities and households to adapt to the impacts of climate change, the R4 Rural Resilience Initiative continued reaching steady scale in 2016 by providing over 41,000 farmers and their families with combined risk management packages in Ethiopia, Senegal, Malawi and Zambia. Our local partners in these four countries have delivered solid performance in educating farmers, working with them to design complex insurance products, and engaging local communities in building and maintaining community assets.

In Ethiopia, the success of the R4 initiative has attracted a range of national stakeholders to the weather index insurance market and the possibility to allow farmers to pay for insurance with the labor they provide to build community disaster risk reduction (DRR) assets (this scheme is known as Insurance for Assets). Following in the path set by R4, more private and public sector actors have entered the market: for instance, the Ethiopian Agricultural Transformation Agency (ATA) has initiated a market-based weather index insurance program with a plan to reach 200,000 farmers in 2016.

The R4 Southern Africa program has grown in Malawi and Zambia, exceeding the target of 5,000 participants in 2016.

In September 2016, the final impact evaluation of R4 in Senegal showed how the initiative, through the implementation of gender-sensitive activities, was successful in limiting the negative impacts of climate shocks on the food security of participant women and men. Gender equality and women's empowerment play a critical role in building resilience and strengthening food and nutrition security. When women have improved access, ownership and control over land and other productive resources, their crop yields increase, with a subsequent rise in total agricultural output in developing countries. In this context, R4 has contributed to increasing gender equality and women's empowerment in a number of strategic and practical ways.

In Senegal, a focus on rice production, which is typically practiced by women, had a positive impact on Senegalese women's financial autonomy and decision-making. In Zambia, R4's encouragement of women participation – about 50 percent of participants are women – and of gender equity in leadership positions of project management committees (nearly 45 percent of farmers clubs' executives are women) is expected to lead to outcomes similar to those seen in Senegal. Finally, in Ethiopia, past evaluations have shown that women benefitted from microinsurance disproportionately through more productive investments and gains in productivity. Efforts are made to guarantee women's equal insurance coverage by contributing 50 percent less labor on risk reduction activities compared to their male counterparts.

Building on the successes and lessons so far, 2017 will see expansion of R4 in two new countries: Zimbabwe and Kenya. More than ever, we stay committed to the people who need it the most and strive to provide adapted solutions for the most vulnerable households in regions severely affected by climate shocks.

*Having insurance, an asset. A peasant who does not have agricultural insurance is like a man who does not have an identity card. We are ready to pay cash insurance even if the project ends because it is a guarantee in case of rainfall deficit. The fact that we did not receive compensation did not discourage us; This shows that we have received enough rain and that the crops are good. Having a good harvest is better than having an indemnity because for us it would mean that there was a problem.*



Women participants  
in Kawral, Kolda





R4 participant checks a rain gauge in Malawi.  
WFP / Hussein Madih

# The R4 Rural Resilience Initiative

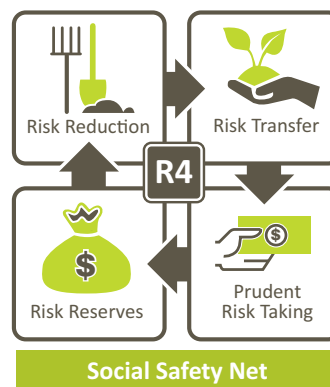
## Background

Vulnerability to climate-related shocks is a constant threat to food security and wellbeing. As climate change increases the frequency and intensity of shocks, the challenges faced by food-insecure farmers will also increase. The World Food Programme (WFP) and Oxfam America (OA) have developed and combined innovative tools and strategies to reduce and mitigate risks farmers face and to help them achieve food security while enhancing resilience at the community level.

with an integrated risk management strategy that combines four risk management components: **improved resource management** through asset creation (risk reduction), **insurance** (risk transfer), **livelihoods diversification and microcredit** (prudent risk taking) and **savings** (risk reserves).

## The R4 model

WFP and OA launched the R4 Rural Resilience Initiative (R4) in 2011, to enable vulnerable rural households to increase their food and income security in the face of increasing climate risks. R4 builds on the initial success of the Horn of Africa Risk Transfer for Adaptation (HARITA) initiative, pioneered in Ethiopia by OA, the Relief Society of Tigray (REST) and Swiss Re. R4 currently operates in Ethiopia, Senegal, Malawi and Zambia currently reaching 41,867 vulnerable farmers and their families







### R1. Risk Transfer

R4 enables the poorest farmers to purchase agricultural insurance. R4 has been one of the most successful efforts to scale up weather index insurance (WII), a financial product based on rainfall index highly correlated to local yields.

Payouts are triggered by pre-specified patterns of the index rather than actual yields, thus eliminating the need for in-field assessment. Compensation for weather-related losses means farmers can avoid selling productive assets and recover faster from droughts. Predictable income can reduce negative coping strategies and encourage rural households to invest in activities and technologies with higher rates of return. Insurance can also serve as collateral to obtain credit at better rates.



### R3. Prudent Risk Taking

Smallholder farmers are often reluctant to invest in productive inputs or hired labor as their farms are vulnerable to external shocks. They may, thus, prefer low input – low output production systems that guarantee a predictable, although

low, income. Microfinance institutions may limit investments because of the perceived high risk of default in bad seasons. With increased food security and a stronger asset base, R4 farmers can increase their savings and stocks, using them along with insurance as collateral to obtain credit for investing in productive assets such as seeds, fertilizers and new technologies that increase productivity. Moreover, insured farmers are more confident to take out loans and invest in productive inputs, including hired labor, knowing that the financial risk of drought is minimized.



### R2. Risk Reduction

Participants have the option to pay insurance premiums either in cash or through the insurance for assets (IFA) scheme that engages them in risk reduction activities.

Assets built, or rehabilitated through these activities (such as water and soil conservation infrastructure), promote resilience by steadily decreasing vulnerability to climate risks. They also promote higher productivity by building the natural asset base available to farmers. IFA schemes are built into government safety net and other programs, as well as WFP Food Assistance for Assets (FFA) initiatives.<sup>1</sup>

Farmers contribute their labor to risk reduction activities identified through participatory assessment and planning. In Ethiopia, Malawi and Senegal, IFA activities have contributed to natural resource rehabilitation and agricultural development. In Zambia, participation in the IFA scheme allows farmers to learn and apply conservation agriculture (CA) techniques to improve their agricultural productivity and sustainability.



### R4. Risk Reserves

Through individual or group savings, farmers can build a financial base that serves multiple purposes. For instance, they provide a buffer for short-term needs, increasing a household's ability to cope with shocks.

Group savings can be loaned to individual members with particular needs, providing a self-insurance mechanism for the community. Savings can also be accumulated in-kind, for example through cereal banks which allow farmers to stock surplus yields or livestock.

1. FFA programs are the cornerstone of WFP's resilience building efforts. They play two roles. As a safety net, they provide food and/or cash transfers to meet the immediate food needs of the most vulnerable households. As a tool for disaster risk reduction, natural resource rehabilitation and agricultural development, they build assets that reduce the impacts of climate shocks, restore ecosystems and enhance agricultural production.

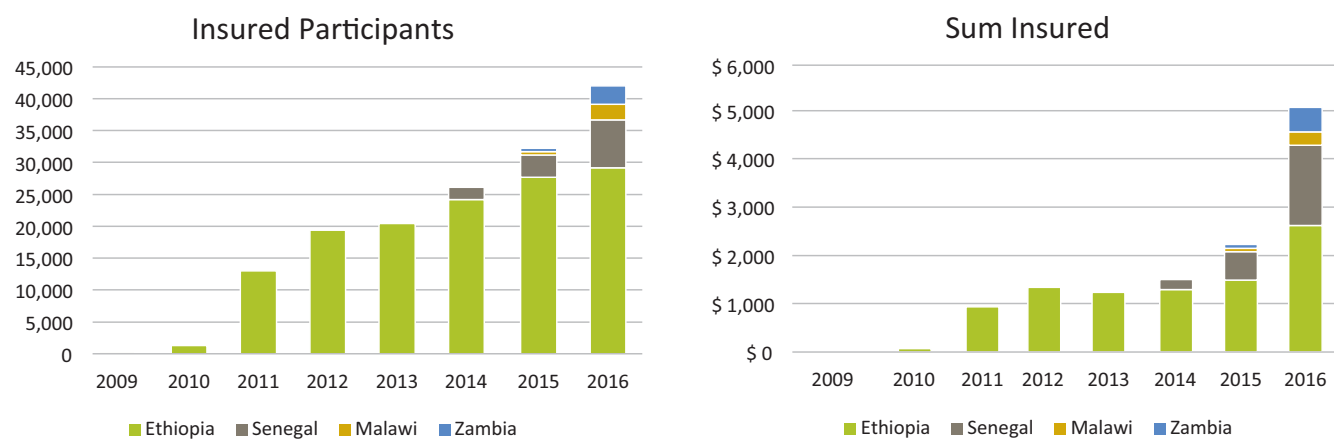


Setting up of a weather station in Kanchomba, Zambia.  
WFP / Prince Zulu

## Project Status

R4 reached 41,867 farmers in Ethiopia, Senegal, Malawi and Zambia in 2016.

**FIGURE 2. R4 achievements by indicator<sup>2</sup>**



2. For the exact figures, please see Annex III.

## Ethiopia

### Key Achievements

- 29,127 farmers insured, of which 32 percent are women.
- 10 percent of participants paid for insurance fully in cash. The average sum insured per participant has shown a 67 percent increase from 2015.
- 748 households in two villages in Tigray received US\$ 3,473 in payouts.

In 2016, a total of 29,127 farmers (32 percent women) participated in R4 in Ethiopia. The initiative is being implemented in 86 villages including 27,024 farmers (9,369 women – 34 percent) in the Tigray region and 2,103 farmers (550 women – 26 percent) in the Amhara region. Overall, the percentage of women has increased by one percent compared to last year and three percent higher compared to 2014. Through the project's Insurance for Assets scheme (IFA), a total of 26,299 households (HHs), of which 24,574 in Tigray and 1,725 in Amhara regions have participated in long-term risk reduction activities, such as watershed management and homestead development identified through vulnerability assessments. The remaining 2,828 participants (10 percent) paid for insurance fully in cash. The percentage of farmers purchasing insurance in cash has remained almost the same compared to last year.

Across both regions, the total sum insured in 2016 amounts to US\$ 2,618,673 (ETB 58,658,294), with a total premium amount of US\$ 432,722 (ETB 9,692,974). Out of the total premium amount, 20 percent, US\$ 87,816 (ETB 1,967,094) was paid in cash by the farmers, while the remaining was covered by the R4 program. The average sum insured per participant has shown a 67 percent increase from US\$ 54 (ETB 1,125) in 2015 to US\$ 90 (ETB 2,014) in 2016.

Assessments on the performance of the index in 2015 led to the implementation of new indexes combining rainfall estimates (ARC2) with Enhanced Vegetative Index (EVI).<sup>3</sup> Furthermore, the new indexes also have a different split of the total sum insured between the early and late windows. The previous indexes had a 30/70 split, while the new indexes have a 50/70 split, capped at a maximum of 100 percent; in Amhara the ARC2 was kept with a 60/60 split. The combination of indexes allows to detect a late window,<sup>4</sup> increase sensitivity to losses and maximize overall payouts in the program area. In the October-December quarter, the index triggered payouts for 748 households in two villages in Kolatemben, namely Begasheka and Debregenet in the Tigray region, amounting to a total of US\$ 3,473 (ETB 78,413).

This year, US\$ 58,073 (ETB 1,311,000) were delivered to 437 farmers who received US\$ 133 (ETB 3,000) each from a revolving fund<sup>5</sup> set up to facilitate access to investment loans. Up to now, a total of US\$ 378,073 (ETB 8,535,000) has been provided to 2,845 farmers – who purchased weather-index insurance in five districts, through a revolving fund. All farmers have engaged in different income generating activities (IGA) and are practicing regular savings in both Village Economic and Social Associations (VESAs) and Rural Saving and Credit Cooperatives (RUSACCOs).

The third impact evaluation study is being conducted in Tigray and Amhara, following the previous evaluations in 2009 (baseline), 2010, and 2012, as well as the most recent outcome monitoring study conducted in 2015. The evaluation will use the difference-in-differences approach to estimate the impacts of R4 on farmers' livelihoods and resilience to risks. The final report is expected in July 2017.

**FIGURE 3. R4 Ethiopia timeline for the 2016 agricultural season**

Status	2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
✓	Payout process				Financial education and outreach							
✓					Financial package development							
✓						Savings and Credit activities						
✓		Insurance enrollment										
✓					Risk Reduction activities							
✓										Payout process		

3. EVI provides a measure of "greenness," or chlorophyll density, which is useful in monitoring vegetation and is an indicator of drought conditions.

4. The term 'window' here refers to critical periods within a growing season that the index targets. An early window coverage targets severely late onset of rainfall or significant dry spells for long cycle crops that occur after sowing, while a late window coverage targets severely early end of rainfall or significant dry spells in the late season that affects flowering and grain filling for all crops.

5. Under the prudent risk taking component, R4 manages a revolving fund providing loans to farmers who want to invest in their agricultural activities through Rural Saving and Credit Cooperatives (RUSACCOs). First, participants become members of RUSACCOs to access loans. Subsequently, the local partner REST provides trainings to the participants before distributing the loan through RUSACCOs. The participants repay the loan to the RUSACCOs and then it revolves in the village through RUSACCOs.



## Senegal

### Key Achievements

- 7,563 farmers (50 percent women) purchased insurance with a 100 percent renewal rate and a doubling in subscriptions.
- 1,896 farmers received US\$ 69,039 in payouts in Kolda and Tambacounda.
- Saving groups involving 17,749 participants (14,412 women) saved US\$ 168,380.
- 13,221 farmers participated in assets creation leading to a 22 percent increase in the rice produced.

A total of 7,563 farmers (50 percent women) purchased R4's insurance product in Senegal in 2016, where the program is implemented in the regions of Tambacounda, Kolda and Kaffrine. This year was characterized by a 100 percent renewal rate, and by a significant increase in insurance subscriptions. Indeed, the number of insured farmers through R4 increased from 3,526 to 7,563 between 2015 and 2016 including 50 percent more women farmers.

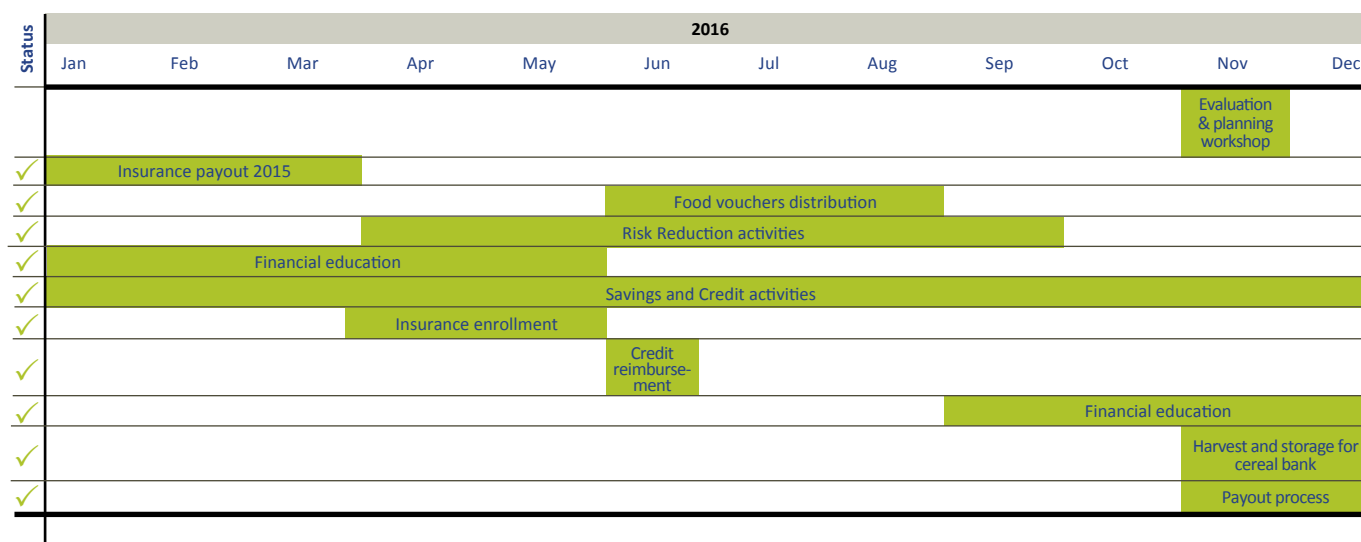
During the January-March quarter, US\$ 80,000 were distributed in payouts to 3,334 farmers from the 2015 season as a result of a late start of the season and significant dry spells. In the last quarter of 2016, the index triggered payouts amounting to US\$ 69,039 (CFA 42,707,246) for 1,896 subscribers in the Tambacounda and Kolda regions as a result of rainfall deficit in September. The sum insured has reached US\$ 1,650,000 this year, a 186 percent increase compared to US\$ 592,888 in 2015. In its fourth year of implementation, R4 piloted the provision of tailored climate services to a number of farmers, with the objective of enabling them to access reliable climate information via mobile phones and advisory services. Climate services will help farmers to better cope with increasing climate variability and adapt their decision-making and farming practices. Participants in Tambacounda and Kolda received

climate services such as weather forecasts and advisory services via *sms* through two different pilots, one in partnership with the high-technology company Ignitia and the other in partnership with the local actors Manobi and ANACIM.

The savings and credit components are fully operational as 765 savings groups continued their activities across the three regions. In 2016, the savings groups with a total of 17,749 participants (14,412 women) saved US\$ 168,380. Members took out loans worth US\$ 208,986. A total of 15 savings associations in Tambacounda and Kolda accessed revolving credit for income-generating activities of their members. The risk reduction component increased by five percent, reaching 13,221 participants in 2016 compared to 12,571 in 2015 in the regions of Tambacounda, Kolda and Kaffrine. Thanks to the asset creation activities to prevent erosion and the provision of seeds and fertilizer by partners, 736 ha of land were recovered for rice cultivation. This led to a 22 percent increase in the production of rice.

R4 Senegal also saw the results of an impact evaluation<sup>6</sup> conducted by Dalberg Global Development Advisors that had been commissioned in 2015 and 2016. The report found that the R4 program has been successful in limiting the negative impacts of climate shocks on the food security of participant households. Program participants experienced greater increases in average household production of staple crops and an increase in savings led by a decrease in monthly expenditure on food. R4 also brought about a gradual change in participants' investment behavior by favoring investment in productive assets over domestic assets, which over time are likely to translate into higher production. Lastly, it was noted that participants who benefited from a combination of interventions such as FFA and SFC experienced greater increases in their crops production, a finding that concretely supports the integrated risk management approach proposed by R4. The key findings are summarized in the Country Level Evaluation Results section of the report.

**FIGURE 4. R4 Senegal timeline for the 2016 agricultural season**



6. A summary of the R4 Senegal Impact Evaluation can be found in the R4 Quarterly Report July-September 2016.

## Malawi

### Key Achievements

- 2,432 farmers (69 percent women) accessed insurance out of the 3,056 households participating in R4.
- US\$ 3,083 in payouts were distributed to 500 farmers.
- 1,618 farmers saved and shared out around US\$ 120,000 through Village Saving and Loans Groups.

In Malawi, 2016 was characterized by the accelerated growth of the R4 initiative, with the number of farmers registering for insurance increasing from 500 to 2,432 farmers (1,684 women – 69 percent), and with the sum insured amounting to US\$ 281,289 (MWK 202,809,753). Overall, the initiative has reached 3,056 households.

In April, payouts of US\$ 3,083 were distributed to 500 farmers as a result of the dry season. During the same month, Community Based Participatory Planning (CBPP)<sup>7</sup> was carried out in the Balaka district to bring the R4 project to cover four additional Group Village Heads (GVHs).<sup>8</sup> The Swiss Agency for Development and Cooperation (SDC) which supports R4 in Malawi and Zambia, commissioned an evaluation of the project in October. The results of the evaluation will be discussed during the R4 workshop planned in March and will lead to the implementation plan for the scale up phase of the initiative for 2017 – 2021.

Moreover, an end-of-season assessment was undertaken for the four R4 GVHs benefiting from the insurance coverage for the 2015/2016 season. The findings led to adjusting some index parameters for the 2016/2017 season.

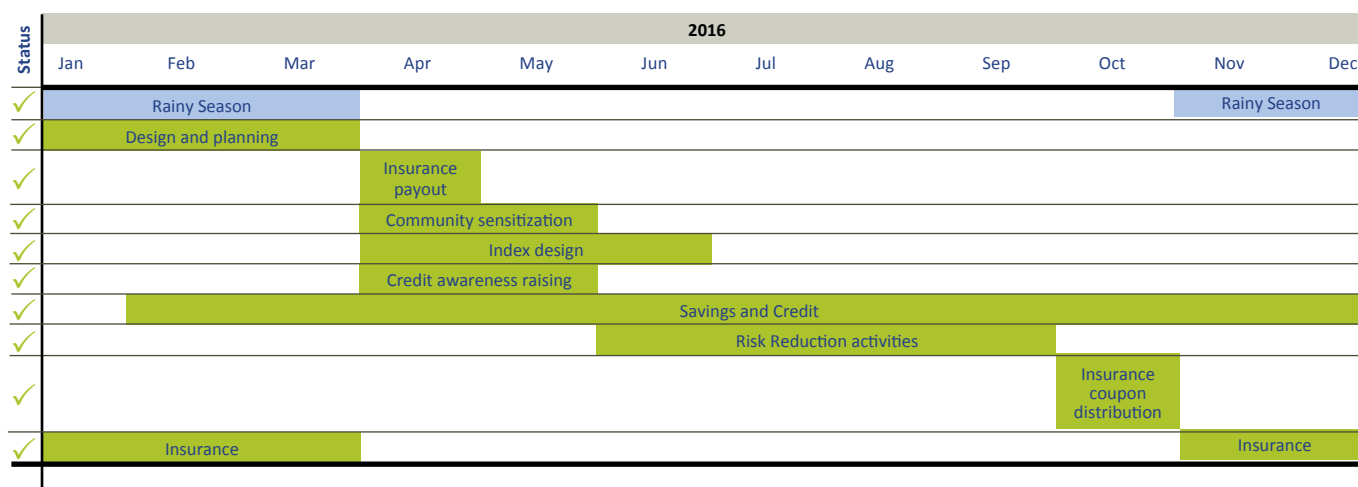
Under the risk reduction component, a number of activities were carried out during 2016 as part of the Food Assistance for Assets (FFA) program. Cash transfers were provided to participants through Airtel Malawi. The activities are completed together with local partners including the United Nations Food and Agriculture Organization (FAO) for land resource, fisheries, livestock, forestry, nutrition, water and sanitation.

Under the risk reserves component, a total of 156 Village Savings and Loans (VSL) groups<sup>9</sup> have been supported by the partner CUMO Microfinance. A total of 2,624 members, of which 1,618 are R4 participants (1,492 women) saved and shared out around US\$ 120,000 (MWK 87,000,000) from January to December 2016, a 363 percent increase compared to US\$ 25,897 saved in 2015. In October, a total of 15 participants accessed loans of around US\$ 728, of which half has already been repaid. About 30 additional farmers applied for loans and the disbursement will take place in January 2017.

In 2016, R4 also explored potential linkages with other WFP programs such as the Global Framework for Climate Service (GFCS) and Purchase for Progress (P4P) as part of its scaling up efforts.

Next year, a seasonal monitoring exercise will be conducted in the project areas between December 2016 and April 2017 to assess the 2016/2017 farming season. This study will include field-level data collection on rainfall, crop production and farming practices undertaken by R4 households to confirm the 2016/2017 index outputs and its accuracy.

FIGURE 5. R4 Malawi timeline for the 2016 agricultural season



7. CBPP is a community level participatory exercise to identify needs and tailor programme responses to local requirements by ensuring prioritisation and ownership by communities plan for vulnerable communities.

8. GVHs are administrative grouping of villages at the district level.

9. Through the Village Savings and Loans groups, households can build a stronger financial base for investing in their livelihoods. Savings, acting as a buffer against short-term needs, increase households' ability to cope with shocks. Groups' savings can be loaned out to help individual households who have a particular need, acting as a self-insurance mechanism for the community.

## Zambia

### Key Achievements

- 2,835 farmers (49 percent women) reached through R4.
- 234 farmers accessed US\$ 42,000 of input credit.
- 463 farmers participated in 35 savings groups with a cumulative saving of US\$ 4,149.

R4 in Zambia, like in Malawi, grew at a rapid pace in 2016 and now reaches 2,835 farmers (1,402 women – 49 percent) from the initial 500 participants. In addition to the Kanchomba South camp, the initiative expanded to four new camps: Muzoka, Ndongi, Kasikili and Kasiya. As initiative in Zambia builds on FAO's Conservation Agriculture Scaling Up (CASU) program, all the participants are insured through the IFA scheme by applying Conservation Agriculture (CA) techniques such as crop rotation and residue. This year marked also the expansion of prudent risk taking component and the roll out of the risk reserves component.

R4 farmers are selling their cow peas to the WFP Purchase for Progress (P4P)<sup>10</sup> platform at market prices. This secures the income needed to meet consumption needs and contributes to the repayment of input loans, which were taken out at the beginning of the agricultural season. During the 2015/2016 season, 234 farmers accessed input credit worth US\$ 42,000.

The end-of-season assessment in Zambia showed that despite some long dry spells during the early insurance window (January 01 to January 31), conditions were not severe enough to trigger the index, which is built to trigger payouts for severe drought conditions. After discussions with communities and partners, the insurance windows were shifted from January to December for the 2017 index in order to better account for the

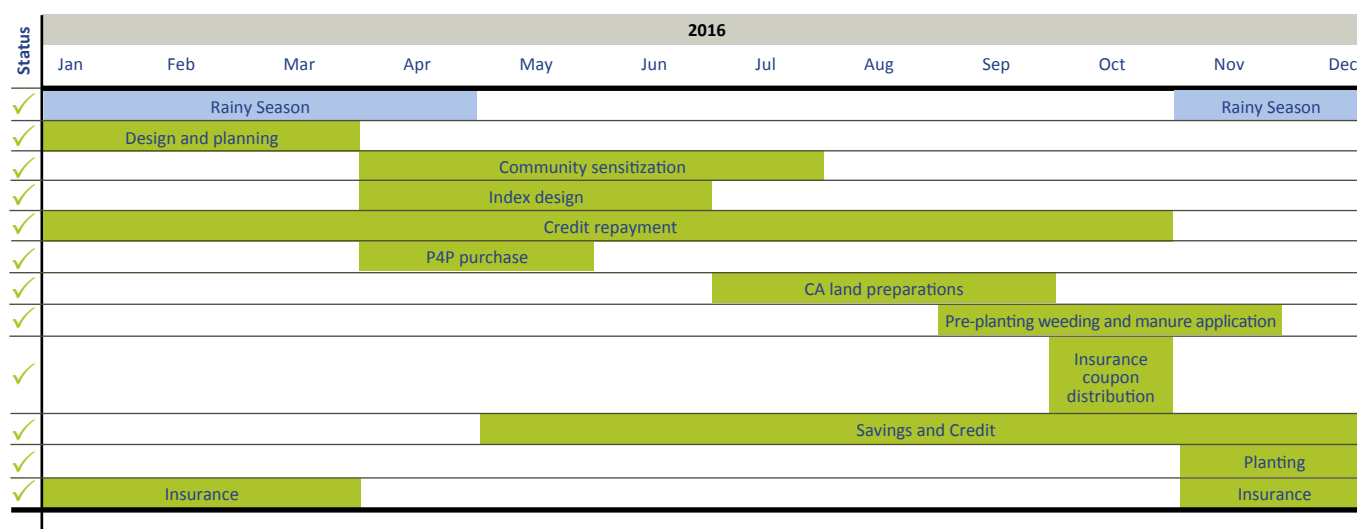
changes in the rainfall pattern. Furthermore, the weights of the windows will be increased, based on previous bad years and farmers' perceptions, to increase the payout amounts, although the frequency of payment should be lowered to maintain premium prices at an acceptable level.

Under the risk reserves component, 463 (274 women – 70 percent) farmers participated in a total of 35 savings groups, which have cumulative savings of US\$ 4,149 (ZMW 39, 416) and loans worth US\$ 3,324 (ZMW 31, 578).

The insurer Mayfair is receiving technical support from the Global Index Insurance Facility (GIIF) and is working with its global stakeholders to build national capacities on micro insurance for agriculture. In the country, 16 additional rain gauges and one automatic weather station were installed by WFP with technical support from the Meteorological Department of Zambia. In addition, R4 participants attended a range of trainings on Saving for Change, financial management, climate and weather recording. Throughout 2016, the R4 team collaborated with relevant partners to hold trainings for key government staff and participants on conservation agriculture, weather index insurance design, financial education and community-based participatory planning process.

A baseline data collection took place in the second quarter in the new project areas in Pemba district following the project's expansion, to which it followed an outcome monitoring conducted in November. Compared to the baseline, the outcome monitoring report registered a decrease in the number of households with poor Food Consumption Score, which can be attributed to increases in incomes from selling of legumes and/or improved consumption of diversified nutritious foods.

FIGURE 6. R4 Zambia timeline for the 2016 agricultural season



10. WFP's Purchase for Progress (P4P) programme connects smallholder farmers to markets, giving them an opportunity to grow their businesses and improve their lives and those of their entire communities.





Claims settlements in TA Kachenga, Pogolani and Mtumbwe GVHs, Malawi.  
WFP / Mathieu Dubreuil

## Evaluation and Learning

R4 places a strong importance on the need to continuously evaluate its impact on participant households, identify challenges and make sure shortcomings are addressed through a sound feedback mechanism. Some of the lessons learned in 2016 are summarized below. The main results of country-level assessments can be found in the next section.

**Disaster risk reduction activities are more effective when using a combined household and community approach** - depending on the context - and focusing on assets that have positive effects on both food production and income generation.

**It is essential to think of participants as ‘clients’**, and to continue actively engaging them in project design, product customization, and outcome monitoring and ensuring strong feedback mechanisms. In Ethiopia, the concerns raised by farmers during the latest round of focus group discussions about the design and timing of DRR works will inform review of the insurance distribution model with key partners.

**National ownership since project inception is crucial.** In Senegal and Ethiopia, better government engagement and involvement in implementation improves visibility, sustainability and the general effectiveness of the program. Going forward,

stronger links with key government stakeholders will allow the program to be integrated in the country's strategy on social protection.

**More effort is needed to strengthen the mechanisms that help farmers transition from a situation of vulnerability to climate shocks to a status of resilient livelihoods.**

In Senegal, while R4 farmers were generally better able to cope with climate variability, they were not yet able to fully switch from status of subsistence producers to one of sustainable livelihoods. Access to credit and markets will need to be enhanced, and the R4's strategy to support this transition is currently being developed.

**Learning and iterative testing is essential to have real impact.**

The design of each component of the project needs to be carefully adapted to local contexts. Experience with climate services in Senegal shows that local capacities and existing infrastructures are key elements to keep in mind.

**Transferring skills is crucial to ensure ownership and stability but is also a long process.**

This is true particularly when it comes to technical skills such as index design and management. In Ethiopia and Senegal, where this process is underway, synergies between IRI and local stakeholders will be important to fully enable local actors to take over R4's interventions.

**Sectorial coordination on the development of index insurance is important to optimize resources,**

improve the product and make scaling up faster. In Malawi and Senegal, WFP is playing a key role of sector convener, enabling key stakeholders to improve their knowledge and ability in developing sound index insurance products.

**R4 interventions - acting as an integrated safety net – are successful in stabilizing participant households and opening up opportunities**

for them when compared to non-participants. Experience from evaluations in Senegal and Malawi, presented in the next section highlight this outcome.

Going forward, the R4 Evaluation and Learning agenda will focus on the finalization of the second phase of the R4 Ethiopia Impact Evaluation.

# Characteristics of the risk transfer component

Under the risk transfer component, a weather index-based insurance which compensates for losses due to specific weather risks is offered to participants. The index is designed by specialized institutions such as IRI in close consultation with farmers, key government ministries, local partners, and experts in agro-meteorology and remote sensing to cover two main drought perils: (i) severely late onset of rainfall or significant dry spells after sowing or in the middle of the season; and

(ii) severely early cessation of rainfall or significant dry spells late in the season. Pre-season discussions determine index parameters such as triggers, exits, frequency of payouts, fixed start of season and coverage windows, and payout split in each window. Although the index is not based on a particular crop, key reference crops are used in each country to validate and optimize the index. Specific details of the designed indices are described below.

## ETHIOPIA

The 2016 agricultural season was characterized by average to above average rainfall conditions in northern Ethiopia. The 2016 indices focused on two drought perils, namely (i) severely late onset of rainfall or significant dry spells for long cycle crops after sowing and (ii) severely early end of rainfall or significant dry spells late in the season for all crops.<sup>11</sup>

Within the Hybrid Late Index, the ARC2 (Africa Rainfall Climatology Version 2) index did not trigger in any of the R4 villages as it assessed 2016 as a ‘good’ rainfall year, in line with

other sources such as FEWSNET,<sup>12</sup> TAMSAT, CHIRPS, ENACT, farmers’ experiences, rain gauges and reports from other organizations. On the other hand, the EVI<sup>13</sup> index triggered partial payouts in two of the 81 R4 villages.

Overall, the 2016 agricultural season showed normal to above normal rainfall conditions in project areas. Farmers did not report any crop loss due to the lack or slow onset of rain, but heavy rainfall (not covered by insurance) caused some damage to crops and created waterlogging problems.

## SENEGAL

In Senegal, R4’s risk transfer component is offered in the North-Eastern region of Tambacounda and East of Kafrine (satellite) and the South-Eastern region of Kolda (rain gauge-based index). In 2016, Tambacounda received a slightly reduced amount of rain compared to average, whereas in Kolda, storms and heavy rains have been dominant, with cumulative decadal (10 days) rainfall over the normal average. The 2016 Senegal satellite indexes focused on two drought perils, namely (i) severely late onset of rainfall or significant dry spells for long cycle crops after sowing and (ii) severely early end of rainfall or significant dry spells late in the season for all crops. The rain gauge based index was covering rain-fed rice and maize, and was focusing on the three main windows, as well as major dry spells and sowing failure.

In Tambacounda, various data sources confirm the same behavior: rainfalls from July to September allowed crops to grow decently until early cessation. Early cessation of rains has been experienced in some areas confirming the triggering of the late window. These payouts were relatively low, with a maximum peak of 53 percent in one cluster of villages, and an average payout rate of 12.63 percent. Crops that have been planted early enough have managed to properly finalize their growth cycle compared to mid and late planting.

In Kolda, the early window triggered due to the presence of several dry spells during the first part of the season which compromised the sowing phase of the crops. The index design team and IRI concluded that the index performed as expected.

11. Reference crops include maize, teff, wheat, bean, and sorghum.

12. Famine Early Warning Systems Network.

13. EVI provides a measure of “greenness,” or chlorophyll density, which is useful in monitoring vegetation.



## MALAWI AND ZAMBIA

The 2015/16 season experienced a major drought across most of Southern Africa, with substantial yield losses. To address the dominant perils, R4 developed two separate indexes, based on satellite rainfall estimates (ARC2). The Early Index targets severely late start to the rainfall season or significant dry spells during the vegetative growth cover stage. The Late Index targets severely early end to the rainfall season, or significant dry spells during the critical periods prior to the end of the season.

The early index triggered payouts in all of the R4 villages in Malawi, due to low rainfall at the beginning of the season. However, the rainfall deficiency was not severe enough to trigger payouts for villages in Zambia, where more severe rainfall deficits for the early window were registered in 1984, 1992, 1995, 2001, and 2005. The late index has not triggered for any of the villages in Malawi or Zambia, following all of the available evidence, including farmer reports revealing that the late part of the season was above normal.

Nevertheless, yield levels were extremely low in both countries at the end of the season. This can partly be explained by several consecutive bad years (including droughts, dry spells and excessive rains), as well as by farming constraints and exacerbated food security situation.

The season assessment in Malawi and Zambia confirmed that the 2015/16 cropping season for the area was marked by long dry spells after first planting and during the middle of the season. However, Malawian farmers reported that they sustained much higher losses in the 2014/15 season due to excessive rainfall experienced during the middle of the season, and early cessation of rainfall. In Zambia, although the dry spells were similar in timing, the dry spell for villages in Kanchomba South hit before the start of the late window. As the second window progressed, the rainfall increased significantly, and farmers were able to avoid a major food insecurity event by producing cowpeas.

# Country Level Evaluation Results

In the evaluation and learning agenda of R4, different tools have been applied to assess the impact of the program depending on the country and on the development stage of the initiative. This section summarizes the main findings of the

impact evaluation in Senegal and the outcome monitoring in Malawi and Zambia. Looking forward, a rigorous Monitoring, Evaluation and Learning (MEL) system will be streamlined in order to assess the impact of the program in its totality.

## ETHIOPIA

The key findings of the 2015 outcome monitoring study were presented in the [2015 Annual Report](#), which suggested that R4 farmers, especially women, are relying less on negative coping mechanisms, and that the majority of sampled insurance purchasers are satisfied with their decision to buy insurance. It also highlighted the positive results of the DRR works being implemented in Ethiopia as expressed by stakeholders during the Annual Impact Reflection<sup>14</sup> conducted in 2015.

The R4 team is currently awaiting results of its third impact evaluation study being conducted in Tigray and Amhara, following the previous evaluations in 2009 (baseline), 2010, and 2012, as well as most recent outcome monitoring study conducted in the 2015. The evaluation will use the difference-in-difference approach to estimate the impacts of R4 on farmers' livelihoods and resilience to risks. The sample will cover the same households included in the previous impact evaluations plus four new control villages to replace villages that have been included in the R4 program since 2012. The final report is expected in July 2017.

## SENEGAL

In 2015, Dalberg Global Development Advisors conducted an impact evaluation of R4. The evaluation - finalized in September 2016 - employed both quantitative (difference-in-differences) and qualitative (desk-based research and focus group discussion) research methods in the three regions where the program is implemented.

### Key findings

- Crop production and food security increased twice as much for R4 participant households as for the control group;
- Participants' Food Consumption Score (FCS)<sup>15</sup> had a four-fold increase compared to that of non-participants between 2015 and 2016;
- 61 percent of HH participants have an acceptable FCS based on WFP's categorization, compared to 36 percent of non-participants, which means that a higher number

of R4 participants eats more nutritious food and in more quantity than the control group;

- Due to a greater availability of food, participants are less likely to resort to negative coping strategies;
- R4 is having a positive impact on household income and assets, with more R4 participants investing in productive assets and increasing their reliance on crop production for their household income;
- R4 is having a positive impact on women's decision-making and financial autonomy, as well as on the perception of poverty and solidarity;
- Participants benefitting from a combination of FFA with other interventions (SfC, insurance, or both) experience greater increases in crop production. This indicates that the integration of risk management strategies has a greater impact on participants than single interventions.

14. The Annual Impact Reflection is a participatory process through which the staff of Oxfam and WFP, partners and community representatives discuss the program's successes, lessons learned, and any corrective actions needed.

15. **Food Consumption Score** is a proxy indicator of household food security based on the weighted frequency (number of days in a week) of intake of eight different food groups. FCS captures both quality (different food groups/dietary diversity) and quantity (food frequency) elements of food security. Households with an FCS of at least 42.5 are classified as "acceptable" while those with an FCS of between 28.5 and 42 are classified as "limited." Food Consumption Score below 28 is considered "poor".

## MALAWI

An outcome monitoring (OM) survey was conducted in Malawi to compare key indicators against baseline to assess progress made toward program objectives and targets.

### Key findings

- Number of groups with poor and borderline FCS decreased;
- The overall dietary diversity of R4 participants has improved, with the average DDS<sup>16</sup> increasing;

- Due to the drought during the survey, women participants experienced greater poor food consumption and higher CSI than men.

## ZAMBIA

In Zambia, outcome monitoring through the Household Economy Analysis (HEA)<sup>17</sup> approach has been conducted three times since the beginning of the project, in May 2015 (baseline), Round 1 follow-up (Jan 2016) and Round 2 follow-up (May 2016).

### Key findings

- Due to the widespread drought, households experienced a worse year. Crop production decreased, and staple crop prices increased dramatically;
- Because of the unfavorable production and market conditions, total income in food terms saw a reduction compared to the HEA reference year.

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16. The household Dietary Diversity Score (DDS) provides an estimation of the quality of diet by measuring the number of different food groups (out of 7 total) consumed over a given period (7 days). The score is calculated based on the data collected for the FCS (7 food groups).

17. The HEA is used to calculate the resilience threshold against which the household survey data can be compared.





R4 farmer participating in a savings group in Bahir Dar region, Ethiopia.  
*Oxfam America / Julio Espinoza*

## The R4 Rural Resilience Initiative through a gender lens

Gender equality<sup>18</sup> and women's empowerment play a critical role in building resilience and strengthen food and nutrition security. Women make up about 43 percent of agricultural labor force in developing countries. In R4 countries, 80 percent of the agricultural production comes from smallholder farmers,

the majority of which are women. Despite their vital role in agriculture and food security, too often women have limited access to and control over productive resources, livelihoods, education, and productive assets such as land, water and agricultural tools.<sup>19</sup>

18. Gender equality is the state in which women and men enjoy equal rights, opportunities and entitlements. For WFP, promoting gender equality means providing food assistance in ways that assign equal value to women and men while respecting their differences. The treatment of women and men should be impartial and relevant to their respective needs.

19. [WFP Gender Policy, 2015-2020](#)

A growing number of studies suggest that equal gender relations within households and communities can lead to positive agricultural and developmental outcomes, including increased farm productivity and nutrition-levels.<sup>20</sup> Yet, despite their substantial involvement in the household economy, women farmers, who often head the poorest households, are more likely to face food insecurity and loss of assets in the events of climate shocks. Low access to land combined with limited financial knowledge and difficulty in building credit, exclude women from accessing loans for productive inputs. To address these gender gaps, it is critical to understand the gendered roles, needs and opportunities of women and men based on data and evidence and, thus, be able to facilitate gender-responsive practices.<sup>21</sup>

The R4 initiative engages smallholder farmers to address their vulnerabilities to food insecurity due to climatic shocks. National assessments, performed prior to project launch, typically include gender considerations to facilitate gender mainstreaming into the needs assessment, design, implementation, monitoring and evaluation of the program. This helps understand special needs of women with targeted actions in each component.

Evaluation studies conducted so far in Ethiopia and Senegal- where R4 has operated the longest- have shown a positive impact of the initiative on women and their households' food and income security.

For the first time in 2015, R4 integrated the Women's Empowerment in Agriculture Index (WEAI<sup>22</sup>) in its monitoring and evaluation plan in Ethiopia. WEAI will shed light on women's empowerment and provide information on how to increase their autonomy and decision-making in key aspects of their lives. R4 Senegal has initiated, as well, a thorough analysis of gender relations in local agricultural markets to understand the roles and responsibilities of women and men in markets, and the challenges and economic opportunities faced by each group. The study is based on the [Gender and Indicators kit](#) developed by BRIDGE, a gender and development research service at the Institute of Development Studies (IDS). R4 in Southern Africa has been scaling up its activities in Malawi and Zambia since June 2016. Both teams are taking this opportunity to reflect on main results achieved in implementing Gender and HIV/AIDS sensitive activities during the pilot phase and review interventions for the second phase (scale-up) starting from July 2017.

## R4's impact on gender equality and women's empowerment

*With the program, I have increased my participation in supporting my family's meals, education, health and clothing needs. I do this by practicing gardening and rice production.*



Women participants  
in Kawral, Kolda

A study conducted in Senegal by IDS found that **R4 has contributed to increasing gender equality and women's empowerment in a number of strategic and practical ways.**

R4 benefits women farmers by facilitating their access to productive assets, as well as by supporting women's savings groups through the 'Saving for Change' (SfC) program. The SfC component also provides an avenue for women to save and acquire small loans to engage in income-generating activities such as rice farming, peanut farming, vegetable cultivation, and small trade.

**Women participants expressed that they felt empowered,** enjoyed increased access to land, seeds, and water for irrigation and drinking, and benefited from training in numeracy, literacy, and business. Having more food and water available also meant that they no longer have to travel far from home to fetch water, with consequent gains of time to spend with their children or working on their small business. The study found a reduction in stress, as women are more confident about their ability to feed their children, as well as pay school fees, and other expenses through small financial gains from selling their surplus crops.

R4's positive impact on women's lives has also been documented in the impact evaluations performed in Ethiopia and in Senegal, respectively for the years 2009-2012 and 2015-2016.

In Ethiopia, **female-headed households achieved some of the largest gains in productivity.** Insured female-headed households (FHHs) increased their agricultural investments and their spending on hired labor and oxen more than other insured

20. Farnworth, Kristjanson, and Rijke 2013; Farnworth and Colverson 2015 as cited in 'Gender in Climate Smart Agriculture' (World Bank, FAO and IFAD): <http://www.fao.org/3/a-az917e.pdf>

21. WB, FAO and IFAD. Gender in Climate Smart Agriculture: <http://www.fao.org/3/a-az917e.pdf>

22. WEAI, developed jointly by the USAID, IFPRI, and Oxford Poverty and Human Development Initiative, measures empowerment, agency, and inclusion of women in the agriculture sector.

farmers and more than the uninsured, which can explain partly how they were able to start cultivating more of their own land. FHHs decreased the amount of land they sharecrop out,<sup>23</sup> a substantial obstacle for the improvement of livelihoods, and increased the amount of land planted. Sharecropping out land is more common among FHHs than among male-headed HHs because FHHs are more likely to lack oxen and the labor needed to cultivate their own land.

**R4 participants in Senegal surpass non-participants in crop production, particularly rice production which is typically practiced by women.** This result is largely explained by R4's gender-sensitive activities as part of the risk reduction component – developing lowlands and adapting them for rice production, distribution of rice seeds, building embankments to avoid soil erosion etc. This has enabled some villages to start producing rice again in their valley after a seven-year hiatus due to the lack of appropriate asset maintenance and adapted seeds.

**R4 Senegal has also a positive impact on women's decision-making and financial autonomy.** While formal household leadership continues to be dominated by men in both participating and non-participating households, decision-making responsibility among women in participating households is increasing. In **Zambia, where R4 is encouraging gender equity in leadership positions of project management committees**, nearly 45 percent of farmers clubs' executives are women.

Across all R4 countries, where all the components are operational, the best practices addressing the needs of men and women include:

- **Equal participation of men and women in Community-based Participatory Planning (CBPP)** and other national-level assessment processes, as well as management committees at the village level, leading to better targeting and more accurate identification of needs.
- **Inclusion of activities designed to improve women's economic opportunities**, such as the development of vegetable gardens, the expansion and improvement of rice cultivation, and the creation of savings groups.
- Participation of women and men in gender-specific livelihoods helps to **increase and stabilize households' overall income**.

## Challenges and way forward

R4 is implemented across a spectrum of socio-economic and cultural landscapes which poses unique opportunities and challenges from a gender perspective. While progress is being made at different levels in the different contexts towards furthering gender equality, the R4 team is aware of the main challenges in each country. Some of these challenges are listed below, and efforts to address them will be part of the way forward as a central objective to build vulnerable farmers' resilience to climate risks.

- **Women's disproportionate share of unpaid care and household duties is still not recognized** whilst it continues to constrain their time and energy for economic activities. The need to perform additional work to purchase a policy could seriously constrain women's ability to access the protective value of insurance. The R4 team is reviewing its insurance for assets policy to facilitate better access by labor-constrained households.
- **Higher illiteracy rates combined with their disproportional effects on financial decision-making processes** pose greater barriers to women's ability to access profitable income-generation opportunities. Specifically, in Ethiopia, due to lack of education, leadership skills, adverse social norms and lack of trust and support from their partners, women are yet to meaningfully participate in leadership roles. There is work to be done to remove or minimize these barriers and enhance the role of women in leadership and their influence in the community.
- **Lack of numeracy, literacy and credit history has been identified as one of the major challenges for women to participate in microcredit activities.** In Senegal, the women-led savings groups supported by the SFC program has proved effective in encouraging women to save and gain financial autonomy by engaging in income-generating activities.
- **In Malawi and Zambia, negative social and cultural practices have exposed boys, girls and women to higher levels of HIV and AIDS infections.** Households affected by HIV and AIDS are among the most vulnerable, poor and food insecure in the two countries. They have higher nutritional needs, which, compounded with already meagre diets, aggravates their food security. To further change negative behaviors, engagement and support from traditional leaders is needed, as these are the promoters and enforcers of social and cultural practices and beliefs.

23. "Sharecropping out" means that the farmer owns the land but gives it to someone else to cultivate in exchange for a portion of the yields.





Woman at the market in Dawadi, Senegal.  
*WFP / Fabio Bedini*

## Conclusion

Contributions by donors have allowed the R4 initiative to meet its objectives in each country and push forward the R4 vision of reaching 500,000 farmers with insurance by 2020. After a successful pilot in Southern Africa, thanks to the support of

SDC, R4 phase II will start in Malawi and Zambia in July 2017. R4 expansion in Southern Africa will also include a pilot in Zimbabwe. The figure below shows the contributions of R4's current donors and technical partners.

**FIGURE 7. Donor contributions to R4**

Donor	Recipient	Total contribution (USD)	Countries	Funding period
Swiss Agency for Development and Cooperation - SDC	WFP	6,579,000	Malawi, Zambia	(2014-2017)
France	WFP	539,407	Senegal	(2016-2017)
Swiss Re	Oxfam America	1,250,000	Ethiopia, Senegal	(2012-2016)
Margaret A. Cargill Foundation	Oxfam America	5,000,000	Ethiopia, Senegal	(2015-2016)
United States Agency for International Development - USAID	WFP	7,958,453	Senegal	(2012-2015)
USAID - iDIV Award	WFP	500,000	Senegal	(2014-2015)
Norway	WFP	2,700,000	Senegal	(2013-2014)
Rockefeller Foundation	Oxfam America	599,000	Senegal	(2012-2013)
Oxfam America	Oxfam America	1,100,000	Ethiopia	(2010-2013)
<b>TOTAL</b>	<b>OA/WFP</b>	<b>26,710,600</b>	<b>All</b>	

## Looking ahead

The R4 Rural Resilience Initiative was launched as a strategic partnership between OA and WFP in 2011. The program leverages both OA's and WFP's strengths, networks and institutional opportunities to test and scale up a comprehensive risk management approach to help communities be more resilient to climate risks.

In 2016, the initiative expanded in Ethiopia and Senegal, while also rapidly growing in Malawi and Zambia. With this successful expansion R4 now reaches over 41,000 households and is set out to initiate operations in two new countries in 2017, namely Kenya and Zimbabwe. Also, country-level discussions are ongoing to explore the possibility of expanding R4 in Pakistan.

The program's robust and objective impact evaluations have demonstrated that R4 is helping farmers improve their resilience. In the next four years, R4 aims to focus on creating sustainable market conditions- understanding the demand for commercial insurance, adopting appropriate and cost-effective technology solutions to facilitate effective feedback loops, electronic transfers, farmer registrations and education, and furthering gender equality by addressing key challenges that create barriers for women to engage effectively in the program.

# Annex 1: Metrics from the field

## ETHIOPIA



### Risk Reduction

#### Tigray

- 24,574 farmers participated in DRR activities;
- 44 km catchment treatment applied;
- 10 km medium gully reclamation carried out;
- 28 km simple runoff diversion structure built;
- one water harvesting check dam pond and 23 roof water harvesting structures for spate irrigation constructed;
- 1,198 micro-gardens prepared;
- 344,163 plantations (cactus pears, cuttings and seedlings) and 2,017 soil fertility management (compost pit making) carried out;

- 100,000 pits prepared and planted with forest seedlings and “Erate” for soil conservation;
- 300 compost-making pits prepared;
- 267 gabion and 42 stone check dams constructed.

#### Amhara

- 23 stone faced soil bunds built;
- 1,360 water percolation trenches built;
- 184 eyebrow and 192 micro basins constructed;
- 895 micro trenches built;
- 9 hillside terraces constructed.



### Risk Transfer

- EVI index triggered 5-6% payouts of US\$ 3,473 (ETB 78,413) in two villages in Kolatemben, namely Begasheka and Debregenet;
- 29,127 farmers insured: 27,024 farmers (9,369 women) in Tigray; 2,103 farmers (550 women) in Amhara;
- 2,828 participants, 2,450 in Tigray and 378 in Amhara paid for insurance fully in cash;

- The total sum insured in 2016 amounts to US\$ 2,618,673 (ETB 58,658,294);
- The total value of premium is US\$ 432,722 (ETB 9,692,974). Out of the total premium amount, 20%, US\$ 87,816 (ETB 1,967,094) was paid in cash by the farmers, while the remaining was covered by the R4 program.



### Prudent Risk Taking and Risk Reserves

- A total of US\$ 58,073 (ETB 1,311,000) were delivered to 437 farmers who received US\$ 133 (ETB 3,000) each from a revolving fund;
- 2,268 farmers took out a loan from RUSACCOs of US\$ 150,698 (ETB 3,402,000). US\$ 133,144 (ETB 3,005,663) repaid by 1,811 farmers in Tigray;
- In Amhara, 220 farmers have outstanding loans.



## SENEGAL



### Risk Reduction

#### Kolda

- 150 shovels and 100 peaks distributed;
- 1,910 m of stone bunds constructed;
- 1000 m<sup>3</sup> of sand excavated from water ponds;
- 4 structures equipped with spillway for dam building;
- 10,000 m of dykes constructed for water control;
- 45 ha of cropland developed;
- Around 323 tons of rice produced;
- 5,780 kg of certified rice seeds and 46,000 kg of urea and NPK fertilizers to increase yields and rice production made available to farmers;
- 2,000 plants of *Acacia mellifera* planted;
- 14 ha of vegetable gardens completed;
- 43,892 tons of vegetables produced of which: 35,922 tons sold and 7,970 tons consumed;
- 10 relais participated in training on technical monitoring and reporting;
- 170 participants (118 women) trained on stone bunds creation;
- 144 participants (134 women) participated in training on sowing and transplanting rice techniques;
- 142 participants (95 women) trained on planting of *Acacia mellifera*;
- 90 participants (73 women) trained on vegetable production techniques.

#### Tambacounda

- 1,3510 m of stone bunds built;
- 5 dams constructed;
- 196 ha of land developed;
- 16,600 m of dykes constructed;
- 12 tons of rice seeds distributed to 7,500 farmers;
- 36 relais trained on technical implementation of rice and associative dynamic, defense and soil restoration;
- 544 women trained on good practices and bunds creation.

#### Kaffrine

- 3 dams built;
- 2,594 m of stone bunds completed;
- 51 ha furrowed land reclaimed through the establishment of stone bunds and ravines rehabilitation structures;
- 103 ha of valleys and lowlands protected through activities including reforestation, bunds, bund frame;
- 3,620 m of dyke constructed;
- 20 T of rice seeds were distributed to 3,948 participants;
- 458 participants (312 women) trained on rice production technology;
- 10 leader farmers trained on rice seeds production;
- 440 participants (279 women) trained on soil protection and management.



### Risk Transfer

- 7,563 HHs (3,929 women) participated in the IFA scheme;
- 13,000 HHs enrolled in FFA activities;
- 18,477 ha of land insured;
- Sum insured amount to US\$ 1,656,914 (CFA 1,019,002,206).



### Risk Reserves

- 765 saving groups including 127 new saving groups covered a total of 17,749 members (14,412 women);
- Members saved a total of US\$ 168,380 (CFA 103,553,750) in their respective savings groups and accessed US\$ 208,986 (CFA 128,526,450) in loans;
- The total savings of 16 Interest Economic Groups (IEG) associations amounts to US\$ 10,595 (CFA 6,516,000);
- Loans from Interest Economic Groups amounted to US\$ 14736 (CFA 9,063,000).



### Prudent Risk Taking

- 10,992 farmers took out loans amounting to US\$ 166,743 (CFA 102,546,950);

- US\$ 5,740 (CFA 3,530,500) has been repaid by 180 farmers for leasing credit;
- US\$ 20,325 (CFA 12,500,000) mobilized under the revolving fund.





## Risk Reduction

- 15 fish ponds rehabilitated and 5 constructed and stocked with 17,000 fingerlings;
- 3,143 (87 communal and 3,056 HHs) back yard gardens constructed;
- 3 feeder roads with total length of 17.7 km constructed;
- 3 culverts lines constructed;
- 17 small irrigation sites established, 40 shallow wells constructed with 3 shallow wells having water pumps installed;
- 10 boreholes rehabilitated;
- 135 toilets constructed;
- 11 bare hills rehabilitated (GVH Silika);
- 87 tree nurseries established;
- 216,381 tree seedlings planted in communal;
- 58,334m of marker ridges constructed;
- 23 vetiver nurseries established and 54,512 m vetiver hedgerow planted;
- 109,973 m swales constructed;
- 1,530 check dams constructed;
- 23 gullies reclaimed;
- 25 treadle pumps procured and distributed to irrigation sites;
- 19,968 heaps of compost manure applied;
- 150 new kraals constructed.



## Risk Transfer

- 2,342 (1,684 women) farmers insured;
- Total premium paid US\$ 41,864 (MKW 30,183,944);
- Total sum insured US\$ 281,290 (MKW 202,809,754).



## Risk Reserves

- There are a total of 156 Village Savings and Lending groups (VSL);
- 2,624 members participating in 156 groups (2,448 women), of which 1,618 members part of R4 (1,492 women);
- 48 VSL groups from the new GVHs (Chulu, Kachenga, Mboga and Muotcha);
- 40 out of 48 VSL Groups (New GVHs) have shared out, with 8 remaining groups expected to share out in January 2017;
- Total sum of US\$ 120,000 (MWK 87,000,000) was shared out among 156 VSL groups.



## Prudent Risk Taking

- 15 participants accessed loans of around US\$ 728, of which half has already been repaid.

## ZAMBIA



### Risk Reduction

- 2,835 farmers completed land preparation using conservation agriculture method of minimum tillage and planted crops including maize, cowpeas, soya beans, groundnuts and beans;
- 5 Lead Farmer meetings with camp extension officers were conducted in all camps to enhance extension services support to their fellow farmers;
- 407 farmers applied lime in their respective fields to improve soil fertility;
- 1,490 farmers applied manure in their respective fields to improve soil fertility;
- 357 farmers applied hill soil in their fields in order to improve soil fertility.



### Risk Transfer

- 2,835 farmers received insurance membership forms;
- 16 rain gauge stations and 1 automatic weather station installed by the Meteorological Department of Zambia for basis risk monitoring;
- IRI and Mayfair conducted two trainings on index design and management;
- The total value of premiums amounts to US\$ 85,500 and the total sum insured worth US\$ 503,202;
- 64 farmers participated in a climate and weather information and recording training by the Zambia Meteorological department;
- Insured farmers cultivate 2,835 ha of land.



### Risk Reserves

- 463 farmers participated in 35 savings clubs in Kasikili, Kanchomba and Muzoka agricultural camps;
- Cumulative value of savings in all the 35 savings groups stands at US\$ 4,149 (KWZ 39,416);
- Cumulative number of outstanding loans is 235;
- Value of outstanding cumulative loans is US\$ 3,324 (KWZ 31,578).



### Prudent Risk Taking

- 2,835 farmers accessed input credit from Vision Fund;
- The credit farming input pack is composed of 10 kg in maize seeds, 4 bags of fertilizer, 25 kg of cowpeas, 20 kg of groundnuts and soya beans seeds;
- The average loan amount per farmer stands at US\$ 250 (ZMW 2,500);
- VFZ extended the loan period for credit input loans by 4 months for adverse weather conditions;
- A total of 6 collection centers in the 4 camps created for input distribution selling points.

# Annex 2: Rural resilience event series

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Panel hosted under the Interactive Weather and Climate Adaptation Radio Programme.	Daniel Longhurst, WFP (Speaker)	Zodiak Broadcasting Station	Multi-stakeholder dialogue on the benefits of extending risk management tools to farmers for resilience building.	Government officials, NGOS.	29 January 2016, Lilongwe, Malawi
GFCS Regional Learning Event	Daniel Longhurst, WFP (Participant)	GFCS	Learning Event on: Including Climate and Weather Information in Participatory Planning and Assessment Tools and Methods.	GFCS implementing partners.	1 February 2016, Nairobi, Kenya
Training on Weather Index Insurance design to Senegalese local stakeholders	Mathieu Dubreuil, WFP (Presenter)	WFP	Empower local stakeholders in the design of satellite index products, specifically in the context of R4.	IRI, ANACIM, ISRA, CNAAS and PlaNet Guarantee.	18 February - 1 March 2016, Dakar and Tambacounda, Senegal
Green Climate Project Programme Development Stakeholder	Stanley Ndhlovu, WFP (Participant)	UNDP, Ministry of Agriculture	Stakeholder Consultative Meeting on Climate Change programs in country.	Government officials, UN Agencies, Farmers Union, and Private sector.	14 March 2016, Lusaka, Zambia
Presentation report on testing of the ISPA tool in Senegal and assessment of public works projects in Senegal	Carla De Gregorio; Mamadou Wane, WFP (Participants)	DGPSN and World Bank	Sharing workshop to present the results of a report that assessed public works projects according to the methodology ISPA.	UN Agencies, World Bank.	15 March 2016, Dakar, Senegal
WFP Regional Two-day Dialogue on Climate Change and Disaster Risk Reduction	Daniel Longhurst, Allan Mulando, Stanley Ndhlovu, WFP (Participants)	WFP Regional Bureau for Southern Africa	Response to Climate Change.	WFP	17-18 March 2016, Johannesburg, South Africa
WFP Regional Bureau West Africa Workshop on Resilience and Social Protection	Carla De Gregorio, WFP (Presenter)	WFP Regional Bureau West Africa	Sharing and learning workshop on WFP's resilience approaches and tools among Sahel countries.	Presentation on the roll out of the 3PA in Senegal.	20-21 March 2016, Lome, Togo
Inception workshop project CINCERE/USAID	Yacine Fall, WFP (Participant)	USAID/CINCERE /ANACIM	Climate Services.	Stakeholders involved in climate services in Senegal	19-20 April 2016, Dakar, Senegal

## Annex 2: Rural resilience event series

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
First Regional Workshop on Parametric Insurance for insurance supervisors and regulators from Latin America and the Caribbean	Mathieu Dubreuil, WFP (Presenter)	MiCRO	Raise awareness amongst regulators and supervisory authorities of Central America about the opportunities and challenges of parametric insurance to help inform the development of an appropriate regulatory framework for WFP. Present the experience of R4 and our thoughts on index insurance as a social protection tool.	National and international experts as high-level representatives of a variety of public and private sector entities.	11 October 2016, Guatemala
Development Finance Forum	Kenn Crossley, WFP (Presenter) Mathieu Dubreuil, WFP (Participant)	KfW	The conference focused on climate and health insurance and the solutions to reach SDGs.	International experts.	2-3 November 2016, Frankfurt Germany
Global Resilience Learning Event	Oxfam America team co-organizer and presenter	Oxfam America	The purpose of the event was to share knowledge, experience and lessons from implementing diverse approaches to building resilience in various contexts. Teams looked at achievements, monitoring tools and systems, gender in resilience, policy and influencing, and the management of resilience programs. Oxfam's Resilient Development Framework was unpacked and applied as a lens across both projects to analyze the focus of the programs as well as identify opportunities for further strengthening respective approaches.	Participants included representatives from partner organizations, WFP, Resilience Knowledge Hub, and Oxfam colleagues from El Salvador, Guatemala, Senegal, Ethiopia, Sudan, Vanuatu, Australia, Spain and the US.	14-17 November 2016, Boston, USA



## Annex 3: R4 achievements

Ethiopia	2009	2010	2011	2012	2013	2014	2015	2016
Participants	200	1,300	13,000	19,407	20,465	24,143	27,668	29,127
Value of premiums	US\$ 2,500	US\$ 27,000	US\$ 215,000	US\$ 265,686	US\$ 282,169	US\$ 253,687	US\$ 269,377	US\$ 432,722
Sum insured	US\$ 10,200	US\$ 73,000	US\$ 940,000	US\$ 1,343,820	US\$ 1,238,567	US\$ 1,294,699	US\$ 1,486,989	US\$ 2,618,673
Payouts	-	-	US\$ 17,000	US\$ 318,911	US\$ 27,138	US\$ 34,187	US\$ 364,094	US\$ 3,473

Senegal	2014	2015	2016
Participants	1,989	3,526	7,563
Value of premiums	US\$ 29,823	US\$ 70,975	US\$ 224,687
Sum insured	US\$ 200,776	US\$ 592,888	US\$ 1,656,914
Payouts	US\$ 3,929	US\$ 80,000	US\$ 69,039

Malawi	2015	2016
Participants	500	2,446
Value of premiums	US\$ 9,500	US\$ 41,864
Sum insured	US\$ 69,750	US\$ 281,290
Payouts	US\$ 3,023	-

Zambia	2015	2016
Participants	499	2,835
Value of premiums	US\$ 9,213	US\$ 85,500
Sum insured	US\$ 74,30	US\$ 503,202
Payouts	-	-

# Annex 4: Media citations and resources

## In the News

- Public Finance International, [Can insurance help the poorest cope with extreme weather?](#) (May 2016)
- Diplomatic Courier, [Ending Global Hunger Through Private Sector, Civil Society and Government Collaboration](#) (September 2016)
- Le Soleil, [Lutte contre la pauvreté : Le projet 4R financé par Oxfam et le Pam soulage les ménages](#) (September 2016)
- The Wire, [UN Working to Tackle Havoc Wreaked by 'El Nino' and 'La Nina'](#) (July 2016)
- The Huffington Post, [Why Climate Matters to Us](#) (July 2016)
- Voanews, [World Bank: Natural Disasters Force 26M People into Poverty Annually](#) (November 2016)
- Africa Times, [Zambia, Malawi farmers develop resilience to climate impacts](#) (October 2016)
- 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).
- Greatrex H, Hansen JW, Garvin S, Diro R, Blakeley S, Le Guen Rao KN, Osgood, DE. 2015. [Scaling up index insurance for smallholder farmers: Recent evidence and insights](#). CCAFS Report No. 14 Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)
- The International Research Institute for Climate and Society. [Using Satellite Data to Improve Index Insurance](#) (August 2014).
- Zambia: Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, AllAfrica (September 23, 2014) <http://allafrica.com/stories/201409231508.html>
- Leaders at UN summit take steps to ensure food security for 9 billion people by 2050, Medi For Freedom (September 23, 2014) <http://mediaforfreedom.com/readarticle.php?AID=18583>
- Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, Insurance NewsNet (September 23, 2014) [http://insurancenewsnet.com/oarticle/2014/09/24/innovative-climate-risk-solution-expands-to-insure-farmers-in-malawi-and-zambia-a-559233.html#\\_uPt](http://insurancenewsnet.com/oarticle/2014/09/24/innovative-climate-risk-solution-expands-to-insure-farmers-in-malawi-and-zambia-a-559233.html#_uPt)
- Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi And Zambia, Thomson Reuters Foundation (September 23, 2014) <http://www.trust.org/item/20140923121822-aq1pc/>
- Adreinne Klasa and Adam Rober Green, ["Africa's catalytic agricultural innovations"](#), This is Africa (July 30, 2013).
- Becker-Birck, C., Crowe, J., Lee, J., & Jackson, S., ["Resilience in Action: Lessons from Public-Private Collaborations Around the World"](#), (July, 2013).
- World Bank, ["Ethiopia - Using a social safety net to deliver disaster insurance to the poor: case study"](#), (June, 2013).
- Climate Change The New Economy (CCTNE), The Guardian and United Nations Environment Programme (UNEP), ["G8 Climate Change: The New Economy"](#), (June, 2013).
- United Nations Office for Disaster Risk Reduction (UNISDR), ["From Shared Risk to Shared Value –The Business Case for Disaster Risk Reduction. Global Assessment Report on Disaster Risk Reduction"](#) (May, 2013).
- Disaster Risk Financing and Insurance Program (DRFIP), Global Facility for Disaster Reduction and Recovery (GFDRR), ["Senegal: Disaster Risk Financing and Insurance Country Note"](#) (November, 2012).
- Agence de Presse Sénégalaise, ["Sénégal: Le projet R4 veut aider les agriculteurs à faire face aux changements climatiques"](#), AllAfrica (Nov. 13, 2012).
- Sénégal – Humanitaire, ["Lancement au Sénégal d'une initiative de résilience rurale"](#), SousLeManguier (Nov. 14, 2012).
- ["Sécurité alimentaire: L'assurance agricole pour réduire les risques en zone rurale"](#), Le Soleil (Nov. 14, 2012).
- 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).
- Victoria Eastwood, ["Insurance Helps Kenya's Herders Protect Against Drought"](#), CNN (June 18, 2012).
- Forum for Agricultural Risk Management in Development (FARMD), ["Oxfam & WFP's R4 Initiative Begins Expansion into Senegal, Fueled by Success in Ethiopia"](#), FARMD Member Updates (June 5, 2012).
- David Satterthwaite, ["Weather Insurance Builds Resilience for Farmers"](#), Momentum (March 2012).
- Jim French, ["Ethiopian Crop Insurance and the Secret Farm Bill"](#), Hutchnews (Dec. 22, 2011). This was also posted by: TreeHugger.com, All Voices: Local to Global News, and the World Food Programme.
- David Bornstein, ["News Flash: Progress Happens"](#), The New York Times (Dec. 15, 2011).
- Agnieszka Flak, ["Games Wake People Up to Climate Change"](#), Reuters (Dec. 2, 2011).
- Laurie Goering, ["Insurance Aims to Help Herders Avoid 'Downward Spiral' from Drought"](#), AlertNet (Nov. 30, 2011).
- Lisa Jones Christensen, ["Case Study: Swiss Re and Oxfam"](#), Financial Times (Nov. 1, 2011).
- DesMoinesRegister.com, ["Crop Insurance Can Pay Off for Small African Farms"](#) (Oct. 13, 2011).

- Alertnet, "Scaling Up Innovative Climate Change Adaptation and Insurance Solutions in Senegal" (September 19, 2011).
- Global Washington blog, "[Reforming Aid: Transforming the World](#)" (Sept. 8, 2011).
- Alertnet, *Index Insurance in East Africa*, a video produced by the International Research Institute for Climate and Society (Sept. 2011).
- Reuters, "[Swiss Re Joins Ethiopian Micro-Insurance Project](#)" (June 10, 2011).
- Tina Rosenberg, "[To Survive Famine, Will Work for Insurance](#)", *The New York Times* (May 12, 2011).
- IRIN Humanitarian News and Analysis, "[Ethiopia: Taking the Disaster Out of Drought](#)" (Nov. 24, 2010).
- "[Global Insurance Industry Statement on Adapting to Climate Change in Developing Countries](#)", ClimateWise, in collaboration with the United Nations Environment Programme Finance Initiative, the Geneva Association, and the Munich Climate Insurance Initiative (MCII) (September 2010).
- Evan Lehmann, "Supporters of Global Insurance Program Hope to Rebound After Dreary Copenhagen Summit," *ClimateWire* (Aug. 4, 2010).
- *MicroRisk*, "Swiss Re Climate-Linked Crop Insurance Takes Off" (July 2010).
- Deborah Kerby, "Climate Covered," *Green Futures* (July 2010).
- Lloyd's News and Features, "[Microinsurance to Mitigate Climate Change Impact](#)" (June 4, 2010).
- Anne Chetaille and Damien Lagrandré, "[L'Assurance Indicielle, Une Réponse Face aux Risques Climatiques?](#)" *Inter-réseaux Développement rural* (March 31, 2010).
- Pablo Suarez and Joanne Linnerooth-Bayer, "[Micro-Insurance for Local Adaptation](#)", *Wiley Interdisciplinary Reviews: Climate Change* (March 12, 2010).
- New England Cable News, "Oxfam Provides Farm Insurance in Africa" (Nov. 6, 2009).
- James F. Smith, "[World's Poorest Farmers Now Offered Insurance](#)", *The Boston Globe* (Oct. 13, 2009).
- Evan Lehmann, "[Africa Experiments with Climate Insurance—for \\$5 a Year](#)", *The New York Times* (Sept. 30, 2009).
- "[Swiss Re, Oxfam America, Rockefeller Foundation, and Columbia's IRI Expand Joint Risk Initiative in Tigray, Ethiopia](#)", Swiss Re press release (Sept. 25, 2009).
- *The Guardian*, "[Climate Insurance: What Kind of Deal Can Be Made in Copenhagen?](#)" (July 24, 2009).
- Jeff Tollefson, "[Insuring Against Climate](#)", *Nature* (July 22, 2009).
- Catherine Brahic, "[An Insurance Plan for Climate Change Victims](#)", *New Scientist* (July 1, 2009).
- Omer Redi, "Insurance Firm Sows Seeds", *Addis Fortune* (June 14, 2009).
- *Newsweek*, "[Coping with Climate](#)" (Dec. 29, 2008).

## Academic journals and publications

- Ted London, "The Base of the Pyramid Promise: Building Businesses with Impact and Scale", Stanford University Press (2016).
- Olaf Weber and Blair Feltmate, "Sustainable Banking: Managing the Social and Environmental Impact of Financial institutions", University of Toronto Press (2016).
- Alberto Garrido et al, "Agricultural Markets Instability: Revisiting the Recent Food Crises" (2016).
- Swenja Surminski and Thomas Tanner, "Realising the 'Triple Dividend of Resilience': A New Business Case for Disaster Risk •Management" (2016).
- OECD, "Disaster Risk Financing A global survey of practices and challenges" (2015).
- Michael Bamberger, Jos Vaessen and Estelle Raimondo, "Dealing With Complexity in Development Evaluation: A Practical Approach" (2015).
- Damon Coppola, "Introduction to International Disaster Management" (2015).
- OECD, "Climate Resilience in Development Planning Experiences in Colombia and Ethiopia", (2014).
- Lisa Schipper et al, "Community-Based Adaptation to Climate Change: Scaling it Up" (2014).
- Judith Rodin, "The Resilience Dividend: Being Strong in a World Where Things Go Wrong" (2014).
- Gabriel Pons Cortès and Itziar Gómez Carrasco, "First Line of Defence: Assessing the potential of local food reserves in the Sahel" (2013).
- The Worldwatch Institute, "State of the World 2012: Moving Toward Sustainable Prosperity" (2012).
- Erinch Sahan and Julia Fischer-Mackey, "Making Markets Empower the Poor" (2011).
- Pablo Suarez and Jaanne Linnerooth-Bayer, "[Insurance-Related Instruments for Disaster Risk Reduction](#)", Global Assessment Report 2011, International Strategy for Disaster Risk Reduction (October 2011).
- Joanne Linnerooth-Bayer et al., "Drought Insurance for Subsistence Farmers in Malawi," *Natural Hazards Observer* 33, no. 5, Natural Hazards Center, University of Colorado (May 2009).
- Molly E. Hellmuth, Daniel E. Osgood, Ulrich Hess, Anne Moorhead, and Haresh Bhojwani, "Index Insurance and Climate Risk: Prospects for Development and Disaster Management," International Research Institute for Climate and Society (IRI), Columbia University (2009).
- Peter Hazell, Jamie Anderson, Niels Balzer, Andreas Hastrup Clemmensen, Ulrich Hess, and Francesco Rispoli, "Potential for Scale and Sustainability in Weather Index Insurance for Agriculture and Rural Livelihoods," International Fund for Agricultural Development (IFAD) and World Food Programme (March 2010).
- Marjorie Victor Brans, Million Tadesse, and Takeshi Takama, "Community-Based Solutions to the Climate Crisis in Ethiopia," *Climate Change Adaptation and International Development: Making Development Cooperation More Effective*, Japan International Cooperation Agency (JICA) Research Institute (December 2010).

## Stories/BLOGS

['Is insurance a climate cure-all? It's complicated.'](#)

["How To Dodge A Drought"](#)

["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

[\*The R4 Rural Resilience Initiative in Senegal\*](#)

[\*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.
- Woldeab Teshome, Nicole Peterson, Aster Gebrekirstos, and Karthikeyan Muniappan, "Microinsurance Demand Assessment in Adi Ha" (2008). A study commissioned by Oxfam America.
- Nicole Peterson and Conner Mullally, "Index Insurance Games in Adi Ha Village, Tigray Regional State, Ethiopia" (2009). A study commissioned by Oxfam America.
- Nicole Peterson, "Livelihoods, Coping, and Microinsurance in Adi Ha, Tigray, Ethiopia" (2009).
- Tufa Dinku et al., "Designing Index-Based Weather Insurance for Farmers in Adi Ha, Ethiopia," IRI (2009). Report to Oxfam America.



# Annex 5: 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.
- **PlaNet 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.
- **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 credit and savings 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 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.

## 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.
- **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 Organization (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.





# 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.

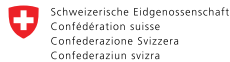


The World Food Programme is the world's largest humanitarian agency fighting hunger worldwide.

Each year, WFP assists some 80 million people in around 80 countries.

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