

# R4 Rural Resilience Initiative

ANNUAL REPORT

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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	<i>Compagnie Nationale d'Assurance Agricole du Sénégal</i>
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	microfinance 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



Women build stonebunds to protect ricefields from sand in Senegal.  
WFP / Azzurra Massimino

## Executive Summary

In 2015, the R4 Rural Resilience Initiative expanded in Ethiopia and Senegal and started in Malawi and Zambia. The initiative now reaches over 192,000 people (32,000 farmers and their families) with its comprehensive risk management approach. Many others are benefitting from combinations of risk reduction, risk reserves and prudent risk taking interventions.

In 2015, the first phase of impact evaluation in Senegal was finalized, showing positive results in improving smallholder farmers' resilience in the face of increasing climate risk.

2015 saw the biggest payouts in the history of R4 with over US\$445,000 distributed to insured farmers in Ethiopia and Senegal due to the dry conditions caused by El Niño. This figure includes basis risk payouts. In the past few years, R4 implemented a comprehensive basis risk strategy enabling the program to compensate policy holders in case of mismatch between index-triggered payouts and actual losses affecting participants. Payout calculations for Malawi and Zambia will take place after the conclusion of the ongoing agricultural season in March 2016.

### Basis risk

Basis risk is the potential mismatch between the index-triggered payouts and the actual losses suffered by policy holders. It is an inherent problem to index insurance and derives from of the diverse microclimates found within relatively small geographic areas, the losses from risks not covered under insurance (e.g. pests), as well as contract design issues.

From a global policy perspective, 2015 marked a significant milestone. The Paris Agreement recognizes the fundamental priority of ensuring food security and ending hunger by addressing the impacts of climate change on food systems and livelihoods. R4 is seen as a leading example of how to help the most food insecure people address increasing climate risk and limit losses and damage building on safety nets.

With the end of the first phase of the R4 Rural Resilience Initiative (2011-2016), Oxfam America and the World Food Programme are committed to developing a second phase of the initiative aimed at reaching between five and 15 countries, and between one and five million people in the next five years by integrating R4 into national safety net systems and climate change adaptation plans. R4 will support at least 500,000 households become food secure and resilient, helping them diversify and increase their income and become more productive, while maintaining a strong focus on large scale community engagement.

### El Niño

El Niño is a pattern of unusually warm water stretching across the surface of the Pacific Ocean. It occurs every 3-7 years. During an El Niño event, the relationship between winds and ocean currents in the Pacific Ocean changes, modifying weather conditions around the world. The resulting changes in rainfall and temperature affect crop and pasture development. In 2015, although the weather event was felt mainly as drought, some parts of the world have seen greater amounts of rain than normal, raising the risk of large-scale floods.

**FIGURE 1. R4 Achievements**

<b>Payouts</b>			 \$ 17,000	 \$ 320,000	 \$ 24,000	 \$ 38,000	 \$ 445,000	
<b>Value of premiums</b>	 \$ 2,500	 \$ 27,000	 \$ 215,000	 \$ 275,000	 \$ 283,000	 \$ 306,000	 \$ 370,000	
<b>Total sum insured</b>	 \$ 10,200	 \$ 73,000	 \$ 940,000	 \$ 1,3m	 \$ 1,2m	 \$ 1,5m	 \$ 2,2m	
<b>Farmers insured</b>	 200	 1,300	 13,000	 18,000	 20,000	 26,000	 32,000	 40,000
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>Countries</b>	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 Sophie Romana

The fifth anniversary of the R4 Rural Resilience Initiative in 2015 marked a milestone. The symbolic benchmark of 30,000 farmers participating in R4 was reached, confirming that the combined risk management packages provided by the program are in growing demand.

Our local partners in Ethiopia, Malawi, Senegal and Zambia 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.

Despite an El Niño year, farmers in Ethiopia – where a severe drought has put over eight million people at risk of a major food security crisis – have fared relatively well in the R4 zones of Tigray. We are eager to further analyze the results and understand how R4 has contributed to building their resilience in these testing times.

R4's most important impact in 2015 may be visible on the international scene. At the UN World Conference on Disaster Risk Reduction in Sendai (May 2015), 187 states adopted a common framework recognizing the importance of disaster risk reduction. During the conference, the Ethiopian Ministry of Agriculture shared how much the government of Ethiopia valued R4 by pledging to integrate it into the country's safety net program (the Productive Safety Net Program – PSNP). In Paris during COP 21, the UN Secretary General, Ban Ki-moon showcased R4 as an efficient strategy to cope with the consequences of climate change.

Yet, we face a challenge in measuring resilience, an elusive concept that can be tracked through a multitude of indicators and frameworks. Evaluation experts are coming together, working hand in hand with program teams to capture the impact of initiatives like R4. Together they are showing that when complementary interventions are combined to improve natural resources management, facilitate access to financial services and build the capacities of the communities, the systems in which they live become more resilient. Evidence, combined with strong demand from farmers, is encouraging R4 to keep expanding and scaling up the initiative.

We have never heard a single female household head struggling to feed her family in Ethiopia or Senegal tell us that she wanted to be resilient. However, we do know that being resilient means becoming a thriving member of her village, a mother who can feed her family without foregoing a meal, a small entrepreneur who can spare a goat for a celebration, a woman who will see her children having a chance of a different life.

She is on our minds every day.



Farmers during participatory mapping activities in Bahir Dar, Ethiopia  
 IRI / GeoffreyMcCarney

# The R4 Rural Resilience Initiative

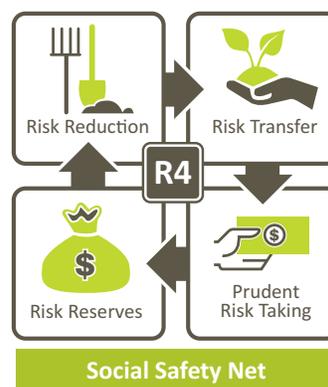
## Background

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.

reaching over 32,000 vulnerable farmers and their families 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





### 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.

#### Index insurance

R4 was mentioned as one of the top five index insurance initiatives globally by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). The report “Scaling up index insurance for smallholder farmers: Recent evidence and insights” explores evidence and insights from five case studies that have made significant recent progress in addressing the challenge of insuring poor smallholder farmers and pastoralists in the developing world.



### R2. Risk Reduction

Farmers 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.

#### Food assistance for assets

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.

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.



### R3. Prudent Risk Taking

Small 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.



### 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.



R4 participants prepare their land according to Conservation Agriculture practices, Zambia.  
WFP / Enoch Kavindele

## Project Status

In 2015, R4 reached 32,288 farmers in Ethiopia, Senegal, Malawi and Zambia. All of them have subscribed to weather index insurance products. The total sum insured amounts to over US\$2.2 million while the value of premiums reached almost US\$360,000. In Ethiopia, where R4 reached 27,668 participants, the initiative builds on the Ethiopian Government Productive Safety Net Programme (PSNP). In Senegal, R4 insured 3,621 farmers out of the 12,000 participants who participated in the FFA and/or savings components. In Malawi and Zambia, where operations began in 2015, R4 reached 999 farmers building on WFP's FFA (in Malawi) and FAO's Conservation Agriculture Scale Up (CASU) project (in Zambia). Triggered by El Niño's impacts on the 2015 agricultural season, a total payout of US\$445,063 was distributed in early 2016 in Ethiopia and Senegal (including basis risk payouts). In the past few years, R4 implemented a comprehensive basis risk strategy enabling the program to compensate policy holders in case of mismatch between index-triggered payouts and actual losses affecting participants. Payout calculations for Malawi and Zambia will take place after the conclusion of the ongoing agricultural season in March 2016.

### Ethiopia

#### Key Achievements

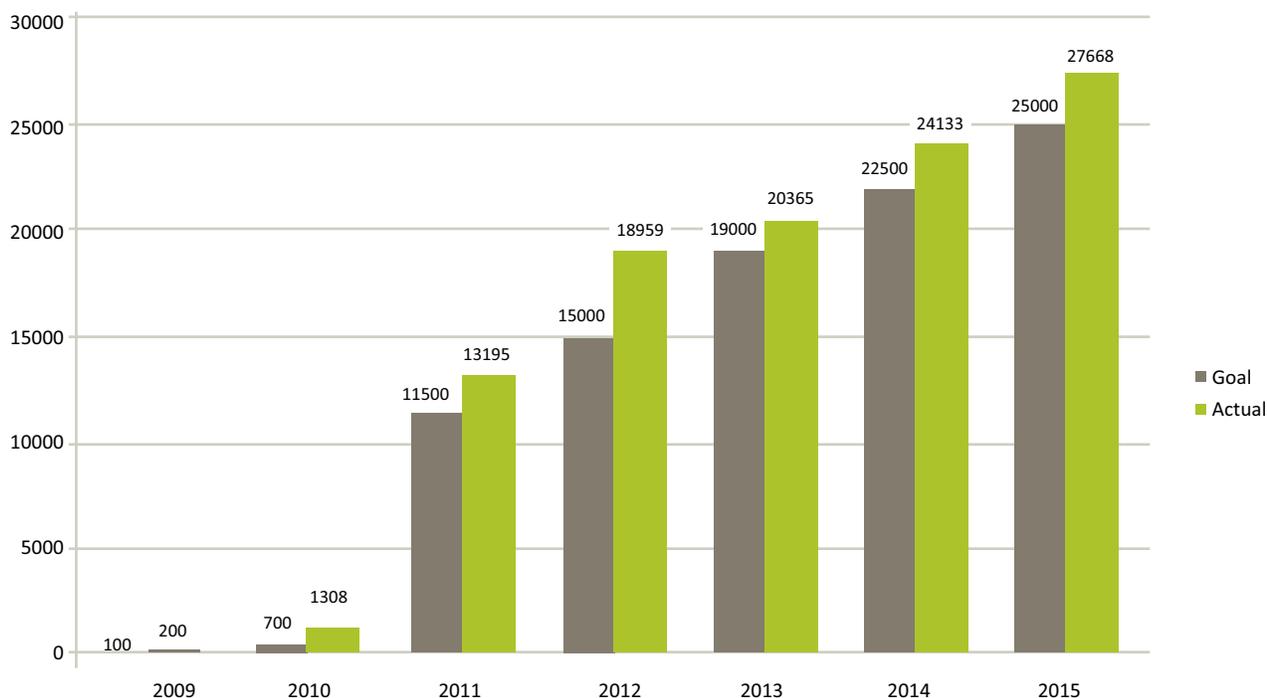
- 27,668 participants reached in two regions – Tigray and Amhara;
- Ten percent of farmers purchased insurance fully in cash; and
- All 25,773 farmers in Tigray received a share of US\$364,094 in payouts, including US\$200,000 from the Basis Risk Fund.

In Ethiopia, R4 extended insurance to 27,668 farmers in 81 villages in Tigray and five villages in Amhara. In Tigray, a total of 25,773 farmers purchased insurance, of whom 34 percent are women. In Amhara, 1,895 farmers purchased insurance, 24 percent of them women. In 2015, there was a two percent increase in the number of female farmers purchasing insurance.

Of the total farmers who enrolled for insurance, 90 percent are part of the PSNP. These farmers purchased insurance by contributing 10-20 percent of the insurance premium in cash, the remainder through the project's Insurance for Assets (IFA) mechanism. Participants worked on long-term risk reduction activities identified through the participatory capacity and

vulnerability assessments (PCVAs) conducted at the beginning of the agricultural season. These included watershed management and development of backyard plots. The remaining ten percent, including 2,109 men and 687 women purchased insurance by paying premiums fully in cash.

**FIGURE 2. R4 Scale-up: Goal vs. actual households covered**



Each year, before rolling out the insurance product, local partners REST and the Organization for Rehabilitation and Development in Amhara (ORDA) provide training on weather index insurance to participating farmers, agricultural development agents and other stakeholders. Repeated training is necessary to make sure farmers understand complex financial products like index insurance. Farmers in Tigray chose products that cover long-cycle crops such as maize, wheat, beans and sorghum as well as such short cycle crops as *teff*. In Amhara, farmers chose to insure their wheat, *teff* and maize crops.

The total sum insured in 2015 amounts to US\$1,457,627, with a total premium amount of US\$264,781. Seventy nine percent was paid by R4 while farmers paid the remaining 21 percent in cash. The average sum insured per participant increased from US\$52 in 2014 to US\$54 in 2015, a four percent increase. Insurance premium rates ranged from 13 percent to 23 percent, with an average of 18 percent of the total sum insured.

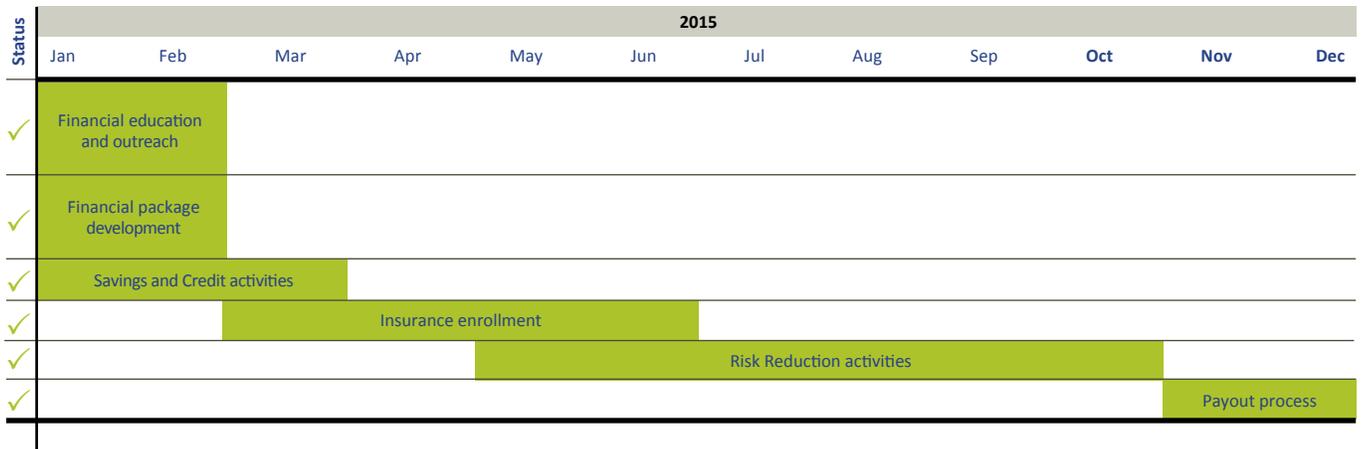
Of the total farmers registered for insurance, 15,048 in 50 villages in Tigray received a share of US\$164,094 in payouts for the early window, supplemented by US\$200,000 from the basis risk fund. There was no payout in Amhara as the rainfall recorded in the insured villages did not reach the threshold required in the policy to triggers payments.

In 2015 for the first time, farmers in Amhara contributed 10-20 percent of the insurance premium in cash, the scale of their contributions depending on their graduation status within the PSNP and the number of years they have been enrolling for insurance under the R4 program. In Tigray, all the farmers who purchased insurance through the IFA scheme contributed 15 percent in cash. R4's strategy is to gradually increase farmers' cash contribution and eventually transition them to fully paying cash for continued access to R4's comprehensive risk management services.

In 2015, OA and WFP in partnership with ILO (the International Labour Organization) held a National Weather Index Insurance Workshop to launch a new working group that will be instrumental in advancing agricultural micro insurance. Over 30 participants – from insurance companies, technology service providers, donor agencies and government stakeholders, including the DRMFS (Disaster

Risk Management and Food Security Sector) – shared current experiences and discussed the strategy and terms of reference of the new National Agriculture Index Insurance Working Group. The group will facilitate the scale up and sustainability of agricultural insurance in Ethiopia mainly through stakeholders capacity building, experience sharing/knowledge management and policy advocacy.

**FIGURE 3. R4 Ethiopia timeline for the 2015 agricultural season**



## Senegal

### Key Achievements

- 12,571 participants reached in three regions: Tambacounda, Kolda and Kaffrine; out of 3,621 insured farmers, 3,334 farmers received US\$80,969 in payouts; and
- 650 savings groups active.

R4 reached 12,571 participants in 2015 in the regions of Tambacounda, Kolda and Kaffrine under the **risk reduction** component. The impact evaluation showed a high increase in production of rice, a key crop supported by R4, in low-lying lands or dry riverbeds. R4 households improved their average rice production by 230 kg per household between 2013 and 2015, compared to a 20 kg increase by non-participants in the same period. In Kolda, in 2015 rice yields reached 4 MT/ha while in Tambacounda yields of 8 MT/ha were registered in Faraba. This is a significant improvement compared to the 2014 agricultural season which had registered very low yields.

In exchange for their work on assets during the dry season, 68,000 beneficiaries<sup>1</sup> in Tambacounda and Kolda received a total of 7,525 food vouchers for a value of US\$252,675 to ensure food security during the lean season. Vouchers were exchanged in local shops to buy cereal, pulses, salt, oil, sugar and soap. Additionally, 592 MT of rice were distributed to almost 52,000 beneficiaries in Kolda and Kaffrine. A further 619 MT of food will be distributed in January 2016 to 60,000 beneficiaries in Tambacounda and Kaffrine. Vouchers and food were distributed to compensate farmers for building assets during the rainy season. By the end of the current season, the R4 Initiative will have distributed 1,084 MT of food to 12,404 participants, in total more than 110,000 beneficiaries.

Under the **risk transfer** component, a total of 3,621 farmers in Tambacounda and Kolda accessed the weather index insurance product in 2015. Of these, 3,388 paid for the insurance

1. The term beneficiaries is used here to indicate participants and their household members, as WFP's food assistance takes into account all the individuals of each household, which in Senegal has an average size of nine.



## Malawi

### Key Achievements

- 500 participants joined the Insurance for Assets (IFA) scheme;
- 2,256 participants completed sustainable resource management activities; and
- The Global Framework for Climate Services (GFCS) radio show aired for the first time.

In early 2015 the planning and design phase of R4 in Malawi was finalized with all partners, including the Balaka District Council, Concern Universal, CUMO Microfinance, and NICO insurance, who underwrites the R4 insurance product.

Before program activities began, baseline data were collected using the household economy approach (HEA) by the Food Economy Group (FEG). Household surveys were designed in collaboration with the International Food Policy Research Institute (IFPRI).

Pilot implementation started in the second quarter of 2015. Through Food Assistance for Assets (FFA), 2,256 participants from five Group Village Heads (GVHs)<sup>3</sup> - Zalengera, Hambahamba, Mtumbwe, Pongolani and Silika - completed sustainable resource management activities that included compost and manure making, small-scale irrigation, construction of contour bands and marker ridges, and afforestation.

A total of 500 participants subsequently joined the IFA scheme, 64 percent women. By working 14 days (on a fish pond, roads and marker ridges) they gained access to the drought insurance.

The premium earned by the farmers is approximately US\$10 and the total sum insured per farmer is approximately US\$73. The policy has two insurance windows to cover critical times in the plant cycle: phase 1 from December 11 to January 10 (germination) and phase 2 from February 1 to March 10 (maturation).

Participants were registered using SCOPE, WFP's registration and information system. This allows tracking of work to meet IFA conditionality, transfers (insurance coverage), and compensation received through payouts.

The index is still being refined and is being assessed through a robust monitoring system. A basis risk plan and monitoring and claims settlement procedures have all been developed as part of this system.

The strategy for the **risk reserves** component is to strengthen existing saving groups and create new ones in the project areas. CUMO has identified and strengthened 49 existing saving groups and created 65 new ones. All the groups received technical support from CUMO in group formation, leadership, and loan and saving processes. In December 2015, 46 groups shared their savings across four GVHs. The total savings and interest shared was approximately US\$25,897. The other groups opted to wait until they accumulated more funds for a more significant share out. As CUMO continues their support to the groups, they will also begin to assess the maturity of the groups and support mature groups acquire loans from microfinance institutions (MFIs).

In 2015, WFP and Farm Radio Trust's radio show – a part of the Global Framework for Climate Services (GFCS) – aired for the first time. It aims to improve the flow of agricultural and climatic information to farming households in Balaka. This show is the first in Malawi to provide tailored agro-climatic advice to farmers.

## Zambia

### Key Achievements

- 499 farmers accessed insurance coverage by applying conservation agriculture to their land;
- A basis risk plan and monitoring system were developed to assess the performance of the index; and
- 234 farmers accessed an input package in support of their application of CA.

2015 began with a planning workshop that brought together key local partners to finalize the design of R4 in Zambia. Other multi-stakeholder processes including Development Aid from People to People Zambia (DAPP), Vision Fund Zambia (VFZ), FAO, and Mayfair Insurance have helped moved the implementation framework forward. Partners were trained in micro insurance and R4's weather index product. As in Malawi, a baseline data collection was conducted by FEG and IFPRI before pilot implementation began in the second quarter.

R4 implementation began with the roll out of conservation agriculture, insurance, and credit, and the promotion of market linkages and climate information services. Implementation

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

has taken place in the Pemba District, specifically the camp<sup>4</sup> of Kanchomba South, where FAO and MAL (Ministry of Agriculture and Livestock) are implementing the CASU program that R4 builds upon.

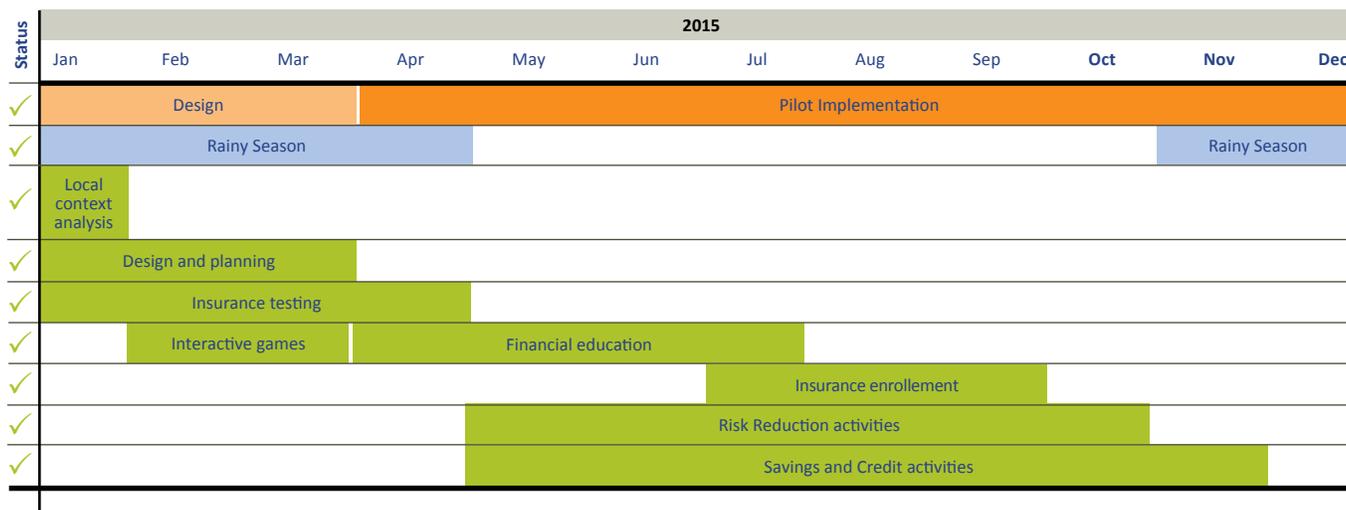
Under R4, 499 (270 women and 229 men) farmers in the camp purchased insurance by investing their labor in preparing at least one hectare of land, by completing lime and manure application, planting, and intercropping. They also participated in training on the principles of CA, land preparation and weed control.

In 2015 the total land insured was 685.5 ha, the amount insured was US\$77,000, and the premium amount paid is US\$9,550. A basis risk plan and monitoring systems have been developed to assess the performance of the index during the season and to address any issues that may arise. The insurance policy has two windows covering the critical middle stage of the season (the month of January) and the later part (10<sup>th</sup> of February to 10<sup>th</sup> of March).

As part of the monitoring system, an automated weather station was installed in the project area along with four manual rain gauges that are managed by R4 lead farmers who have been trained to collect rainfall data during the agricultural season. The lead farmers' engagement in collecting rainfall data offer building blocks for the development of the climate information services component of the program.

R4 farmers have also been offered access to input loans in support of their application of CA. In total, 234 of them obtained through solidarity groups the input package, containing lime, cow peas, sugar beans, maize, fertilizer and herbicides. The input packages are sourced through agro-dealers who also act as aggregators for WFP to buy surplus cowpeas from the farmers, as part of the market linkages component of the program. The total loan portfolio of Kanchomba South stands at US\$72,370. The groups are supported by financial literacy training offered by VFZ. In the future, savings mechanisms will be promoted, as per the Risk Reserve component and OA's Saving for Change (SfC) methodology.

**FIGURE 5. R4 Malawi and Zambia timeline for the 2015 agricultural season**



4. This is an administrative unit for a group of villages.



DRR irrigation project, WFP resilience programming, Zomba, Malawi.  
WFP / Bridget Reihardt

## Evaluation and Learning

Since its inception in 2008, R4 has placed strong emphasis on evaluation and learning through an approach that ensures results of the analysis feed directly into R4's strategic planning and which is independent, with outcomes and impacts evaluated by external stakeholders.

R4 strives to create a learning culture in which both successes and failures actively inform the development of future work. While some challenges and related lessons are context specific, the R4 global team seeks to continuously consolidate and use its experience to improve programming in existing countries and inform expansion in new countries. These lessons are summarized below:

### **R4 is helping improving the resilience of smallholder farmers**

Both the Impact evaluation of HARITA/R4<sup>5</sup> (highlighted in the 2014 Annual Report) and that conducted in Senegal in 2015, confirm that R4's comprehensive risk management approach contributes to farmers' food security in times of climate shocks. R4 achieves this by improving farmers' ability to invest in, and increase, agricultural production in 'normal' times while providing more diversified and 'safer' ways of storing the increased wealth generated from agriculture.

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5. <http://www.wfp.org/content/harita-r4-impact-evaluation>

### **An effective comprehensive risk management approach needs to be flexible**

While smallholders in sub-Saharan Africa face similar risks, they are typically confronted with different challenges and opportunities dictated by the context. This is why a flexible approach is better suited when it comes to improving the resilience of vulnerable populations. This is highlighted by R4's experience in Zambia where one of the building blocks of the initiative is FAO's Conservation Agriculture program, rather than R4's typical public works program.

### **Each R contains multiple tools**

The Malawi experience with climate services showed how other context appropriate risk management tools could, and should, enrich the R4 toolbox. Climate services are a key risk management tool to 'reduce risk', providing farmers with accurate information and advisory services to adapt to the changing climate. Senegal and Zambia are next in line to pilot its climate service component in 2016.

### **Addressing basis risk is key**

Basis risk is an inherent challenge to index insurance programs, which can generate farmers' distrust towards the insurance product and thus the overall initiative. R4 has been proactively working towards minimizing this risk for R4 participants since its launch by:

- continuously improving the indices;
- strengthening the risk reserves component as a buffer for non-catastrophic events;
- developing rigorous basis risk fund mechanisms in each country; and
- improving farmers' understanding of indices and of tradeoffs in insurance products.

### **Transferring capacity to local stakeholders is essential for the sustainability of the initiative**

Implementing R4 has reinforced the need to extend and improve capacity building at the local level, both for government and private sector partners. In Senegal, this process will start in 2016 with IRI conducting index insurance design workshops for R4 key partners in the risk transfer component. Plans in Ethiopia will ensure efforts towards building local capacities are linked with government ownership.

### **Effective data management tools are critical for scale up**

With the gradual expansion of R4 in Ethiopia and Senegal, household-level data collection and management became increasingly challenging. R4 will therefore be piloting WFP's corporate registration tool – SCOPE in Ethiopia, Senegal and Malawi in 2016. SCOPE will track farmers' participation in the four program components, allowing R4 to effectively monitor program interventions.

## **Going forward**

To improve implementation and measure success, in 2016, the R4 team is committed to four additional learning efforts:

- The R4 implementation guidelines will provide a practical methodology for developing a R4 project, from inception to monitoring and evaluation (M&E). The guidelines will also facilitate knowledge management by collecting literature produced by the R4 team and external stakeholders.
- A basis risk study will address the most significant challenges to R4's index insurance.
- A cost-benefit analysis will assess the comparative effectiveness of R4 in preventing or reducing the need for humanitarian responses in areas exposed to climate shocks.
- In Senegal and Ethiopia, the R4 team is set to carry out an impact evaluation, the final results of which will be available in mid-2016.

# Country Level Evaluation Results

## ETHIOPIA

### Assessing the risk transfer component: End of the season assessments in Ethiopia

In Ethiopia the insurance product covers two main drought perils: severely late onset of rainfall or significant dry spells for long cycle crops after sowing; and severely early end of rainfall or significant dry spells late in the season for all crops.

Thus, there are two insurance windows contributing respectively 30 and 70 percent of the maximum payout. Some crops are vulnerable to shortage of rain in both windows, while some crops are more specifically vulnerable to early cessation of rainfall in the late window. The index is triggered using the NOAA ARC2 satellite estimates of rainfall.

There is broad evidence indicating that 2015 was a major drought year across most of Tigray, with substantial yield losses. However, assessments of the severity of the impacts vary between data sources. In most parts of Tigray where the R4 project is operational, all sources of information show a late start to the *meher* (the main) rainfall season, with a great deal of heterogeneity in rainfall across the region. The late start to the season implied delayed planting by farmers, which required that rains extend longer than usual to compensate for the early season drought. However, 2015 had a mix of weak and strong end-of-season rainfall periods.

Reflecting the poor rainfall in the early part of the season, the early window indexes indicated 2015 had the worst start of any year since 1983 (the beginning of available data) for an unprecedented number of villages. This is a consequence of the El Niño effect and by far the worst average index level in HARITA/R4 project history. Early window indexes triggered in ten of the 12 woredas (administrative units) in R4 intervention areas, providing payouts in 50 of the 87 R4 villages. Most of the villages in Southern Tigray have 100 percent early window payout levels. Villages in Adwa, Were Lehe and Tanqu Abergele had substantial payout levels.

In Amhara, where farmers reported an excellent year, there were no early window payouts triggered in participating villages.

The insurance payouts did not fully meet expectations from partners or farmers. In northeastern Tigray farmers raised concerns when payments were only triggered in eight of the 21 villages, despite a reportedly below-normal rainfall with long dry spells in the whole area. The decision of farmers and local agriculture experts to insure 30 percent of the value of crops in the early window and 70 percent in the late window also contributed to low payouts.<sup>6</sup> The R4 country team held several meetings with farmers, local staff, and the senior management team of the Relief Society of Tigray (REST). It was jointly agreed to activate the Basis Risk Fund. This fund was allocated to farmers in accordance with the eligibility criteria and the payment calculations set out in the Basis Risk Fund Management Guidelines developed by the R4 team in close consultation with local partners.

Although 2015 was clearly a bad year, since 1983 there have been other years that were at least as bad and perhaps substantially worse, if both the early and late windows are taken into account. There are certainly technical improvements that can be made to the index. It is important to clarify price and coverage tradeoffs involved. Some of the solutions under consideration include:

- Improving the index through better packaging of the index elements, alternate satellite rainfall data sources – such as Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) – and the use of a hybrid rainfall/vegetative index. The latter was tested in 2015 and performed extremely well. It will likely become the standard index for 2016.
- The index should be recalibrated and repackaged to have more frequent full payouts. Project partners and farmers had deliberately opted for large payouts for one-in-five year events. They also expect full payouts for worst-case events in their village. This will involve difficult trade-offs related to the premium as a percent of maximum liability and frequency and size of payouts. It is important to address these trade-offs in discussion with farmers and partners.
- R4 is a holistic risk management initiative. Insurance alone is clearly not enough to adequately manage risk. Efforts to develop and strengthen other complimentary risk management strategies should continue.

6. This decision was reached based on past experience. For, historically, the probability of having a severely late end to the rainy season is much higher than that of a severely late onset of the rainy season. In 2015, however, the rains came very late and picked up in the second window. For this reason, although payments were triggered in the early window, the payouts were not of a significant amount as they were capped at 30 percent of the insurance value.

## Measuring outcomes: Ethiopia Outcome Monitoring Study

In October–November 2015, an outcome monitoring study was carried out in three *woredas* of Tigray by an external consultant. It covered 379 households, including 287 from the intervention areas (since 2008) and the remaining 92 as a control group. The study adopted a mixed-methods approach, collecting quantitative information using a household survey and qualitative information using Focus Group Discussions (FGDs) and key informant interviews. Some of the key results were:

- Farmers rely less on negative coping mechanisms, especially women. In order to cope with El Niño conditions and higher input prices, most insured farmers resorted to livestock sales and using their savings. This indicates a positive trend in the adoption of more stable coping mechanisms, rather than resorting to emergency food aid or reducing food consumption, as happened in 2012. It is also worth noting that in 2012 farmers insured through R4 had increased their savings and the number of oxen compared to uninsured farmers. These increased savings helped insured farmers to avoid negative coping strategies during the drought in 2015.
- Female-headed households adopted better coping mechanisms than male-headed households compared to 2012. Almost twice the number of female-headed households used savings as a coping strategy compared to 2012, while the increase for male-headed households was much smaller (two percent). Similarly, the number of female-headed households relying on selling accumulated livestock increased by almost 300 percent between 2012 and 2015, compared to a much smaller increase for male-headed households (from 20 percent to 36 percent). Thanks to the livestock accumulated between 2012 and 2015, women still had more livestock available after the bad season than in previous years.

- Insurance purchasers are satisfied with their decision to buy insurance. Around 96 percent of the sampled farmers who purchased index insurance in any of the previous three years reported that they are satisfied with their decision. The main reasons cited by farmers include peace of mind of not having to sell their assets (43 percent of respondents), or not having to reduce food consumption (22 percent). Some farmers (five percent) also stated that they saved more because of insurance. The relatively small number of households who are not satisfied with insurance cited high premium rates as the reason for their dissatisfaction.

R4 also led an **Annual Impact Reflection (AIR) workshop**. The AIR is a participatory internal process through which WFP and OA, together with partners and community representatives, discuss the successes and failures of the programme, lessons learned and potential improvements. The AIR indicated that farmers' increased confidence in insurance has led to an increased use of improved seed and fertilizers. Insured farmers also face fewer difficulties paying back their loans during droughts compared to uninsured farmers. Local stakeholders have also observed how the livelihood of farmers using all 4Rs has improved all the four Rs, and have particularly emphasized the importance of savings and credit within the R4 approach. Furthermore, the stakeholder discussions and anecdotal inferences during the AIR confirm positive results of disaster risk reduction (DRR) interventions. For example, in sites where water storage and diversion structures have been constructed, instead of producing a single harvest farmers are now able to produce two or even three times per year. Furthermore, using compost as an alternative to chemical fertilizers has reduced farmers' production costs.

## SENEGAL

### Assessing the risk transfer component: End-of-season assessment and insurance survey in Senegal

In Senegal, the index insurance product covers two drought perils: weak or late onset of rainfall, which impacts sowing and the establishment of long cycle crops; and weak or early end of rainfall, which impacts filling and maturation of all crops. The two windows operate independently, contributing 50 percent of the maximum payout each.

To address the dominant perils, two separate indexes were initially developed. One intended to target frequent,

smaller droughts (dry index) and the second large, infrequent droughts (very dry index). In 2015, based on farmers' preferences, only the dry index that captures frequent, smaller droughts was commercialized. This index is calibrated to have a meaningful payout for the worst year out of five in the historical dataset. One of the major improvements made with the 2015 index was the setting of a daily rainfall cap parameter to allow for a more sensitive capturing of rainfall pauses (or dry spells). A daily cap would have been successful in capturing 2014 dry spells that were not detected by the 2014 decadal cap. This refinement made the index more accurate and sensitive to rainfall distribution.

During the 2015 season, satellite data (ARC2), as well as ground reports showed a later than average onset of rainfall, which triggered index payouts in all villages except one, Woundoudou Amirou for the first window. Once the rains started, the level of rainfall in the R4 region remained within expected levels during the middle of the rainy season, and above average by the end of the rainy season (the month of September). Therefore, no payouts were triggered for the second window.

After a thorough field assessment, which confirmed that the rainy season in this village was comparable to that in the other villages in the area, the R4 team decided to include Woundoudou Amirou in the payout group with a basis risk payment of ten percent.

In November 2015, WFP conducted an **insurance survey** which showed a strong interest for index insurance by participants. Despite some issues related to the functioning of the index in 2014 and some operational problems, insurance subscribers value the benefits that insurance brings to their lives: Payouts have allowed them to supplement household resources and they understand and value the protection that it guarantees their investments. Farmers understand the catastrophic nature of the insurance coverage, as they see agricultural insurance as the ‘spare wheel of a car on which to rely during difficult times’, as a farmer suggested. Participants noted however that much more effort on education and awareness raising is needed along the value chain to make this tool understood at all levels.

### MEASURING IMPACT: R4 Senegal Impact Evaluation and Annual Impact Reflection (AIR) workshop

In 2015, R4 commissioned Dalberg Global Advisors to undertake the first phase of the impact evaluation to. The consultants used a quantitative (difference-in-differences) and qualitative (desk-based research and focus group discussion) methodology, analyzing R4 impacts on a sample of 1,776 households. The evaluation revealed a worsening situation between 2013 and 2015 in the pilot area of Koussanar with regards to food production and consumption due to a decrease in agricultural and livestock production during preceding years. The Food Consumption Score (FCS)<sup>7</sup> worsened over the two years for both participants and non-participants of R4. However, R4 farmers were able to maintain their food security level compared to farmers living in the same area and exposed to the same shocks. Participants’

FCS dropped from 59.02 to 56.24 points (-8.1 percent) as opposed to non-participants who witnessed a decrease from 56.2 to 28.6 points (-49.1 percent). According to the FCS’s categorization,<sup>8</sup> on average non-participants went from an ‘acceptable’ food security situation, to a ‘limited/borderline’ food security situation. R4 participants on the contrary, while experiencing a drop in their FCS, remained in the ‘acceptable’ food consumption group. An increase in rice production was also observed among R4 farmers compared to the control group. Rice is a key crop supported by the R4 Initiative through better management of low-lying land. R4 participants improved their average rice production by 229.79kg per household over the survey period, while non participants increased production by 20.13 kg, less than ten percent of the increase observed for participants. In 2016, a further data collection will finalize the results of the impact evaluation.

#### Ibrahima Diop, Deputy Mayor of the village of Mereto, characterizes the four Rs:

*“To me, R4 means Reap, Remuneration, Rejoice and Revitalization: the program enables us to harvest more (Reap) through the use of adapted seeds, support, agricultural materials, and guarantees through insurance, it helps sell more (Remuneration) to have more financial resources and be happier (Rejoice), and to reinvest and revitalize the household (Revitalization).”*

As in Ethiopia, the R4 Senegal team also conducted an **AIR workshop**. The main points highlighted were:

- Insurance can be accessed by the poor: mechanisms such as the IFA have contributed to breaking the myth of insurance being inaccessible. Trust begins to develop between the insurance company and farmers.
- A new dynamic has emerged in the households, with women seemingly enjoying a more rewarding status. Women’s contribution to the household, both in-kind (increased rice production) and in cash (savings and income from Income Generating Activities) is now valued. Their contribution to the household economy is appreciated as it strengthens food security and improves income.
- Communities particularly value the risk reduction component, because the assets built are tangible and concrete. They recognize the importance of the assets and their utility, and this has reinforced their strong participation in DRR activities. The many volunteers who participated in asset building activities without receiving food or vouchers confirm this.

7. The Food Consumption Score (FCS) 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. It is measured as follows:  $FCS = a_1 \times x_1 + a_2 \times x_2 + \dots + a_8 \times x_8$ , Where  $i$ =food group,  $x$ =frequency,  $a$ = weight. FCS captures both quality (different food groups/dietary diversity) and quantity (food frequency) elements of food security.

8. The FCS categorizes households into Food Consumption Groups (FCG). In Senegal, cut-off points are: Poor food consumption: 0-28, Limited/Borderline food consumption: 28.5 – 42, Acceptable food consumption: >42.

## MALAWI AND ZAMBIA

Implementation of R4 in Malawi and Zambia started in 2015. A systematic M&E process was put in place to measure the effects of the initiative on the food and income security of participating households. A key outcome of this process was the development of the project's baseline.

The baseline records key information before the activities begin in order to benchmark progress throughout the project's life cycle. As such, it provides a solid foundation for the M&E system and a tool to measure changes in the targeted households as a result of R4.

The R4 baseline was conducted in two phases, using a combination of qualitative and quantitative tools. The qualitative component, and Phase 1 of the baseline work, employed the Household Economy Approach (HEA) to collect information on participants food sources, incomes and expenditure patterns, as well as assets, livelihoods and coping strategies for the livelihood zone (beyond the target population). The quantitative component, Phase 2, used a household survey to gather data from a sample of households targeted by the project in order to generate information on their status prior to the implementation of R4. This is relevant for the development of monitoring indicators.

The use of the HEA is an innovation being piloted by R4 southern Africa. The HEA is intended to contextualize the household surveys and to generate Livelihood Protection and Resilience Thresholds which will be used as a benchmark to measure progress of R4 households towards resilience.

The Resilience Threshold establishes the level of income needed by households in a particular wealth group to be resilient to a particular shock. The level of income is set at the amount required to protect the household's livelihoods in a shock event without resorting to negative coping strategies,

such as destocking or selling of household assets. To reach this result, the community was divided into wealth groups, with each wealth group being assigned its own resilience threshold as it will take different income levels to protect the current livelihoods of each group. A modelling process was used to define the thresholds using the household data and simulating moderate drought and severe drought shocks.

Through this exercise, the team learned that the majority of R4 farmers in Zambia are in the very poor (41 percent) and poor (39 percent) wealth categories, while 14 percent and six percent are in the middle and better-off categories. Based on these profiles and the HEA modelling, we know that on average 46.5 percent of participating households may be resilient to a moderate drought event. This figure drops to 39.75 percent when the magnitude of the shock increases.

For Malawi, the prevalence of food distribution greatly influences the household economy and thus has to be factored in when establishing resilience thresholds. Overall, 43 percent of the households would be able to withstand a moderate drought event when there is food aid. When, there is no food aid, this drops to 35 percent. This huge drop is indicative of the overarching poverty found in the project area. However, unlike Zambia, only 46 percent of the population falls under the very poor and poor wealth categories. It is expected that a higher proportion of households will be included in the very poor and poor categories. A re-assessment of the wealth indicators is under way in order to check if these are properly capturing the real situation on the ground to better contextualize wealth rankings and Resilience thresholds. Through the same efforts, the targeting of the project is being reviewed.

Moving forward, R4 will continue to use the M&E system to inform its understanding of the context, the impacts of the project, and ways through which activities could be improved.



A farmer stands in front of the village vegetable garden, Tambacounda, Senegal.  
WFP / AzzurraMassimino

## R4 Policy Engagement

**The current El Niño phenomenon, which began in early 2015, is one of the strongest on record and is now affecting the food security of a vast number of already vulnerable people. One of the hardest hit countries is Ethiopia, which is dealing with a drought-related emergency that could be the worst in 50 years.** In 2015, both the *belg* (March to May) and *meher* (July to

September) growing seasons were affected, with humanitarian needs rising sharply. According to the 2016 Humanitarian Requirements Document prepared by the government and its humanitarian partners, more than ten million people will be in need of relief food assistance in the first six months of 2016 – more than triple the number at the beginning of 2015.

**The current El Niño and the complex droughts, storms and floods the world is experiencing provide a window into what our future climate could look like.** By linking climate change to the broader sustainable development agenda, **the Paris Agreement<sup>9</sup> signed in 2015, represents a major step forward in recognizing the fundamental priority of ensuring food security and ending hunger by** addressing the climate change consequences on food systems and livelihoods.

**The agreement also recognizes the need to reduce and manage the losses and damage that increasing climate extremes will cause.** It calls for increased efforts in such things as early warning systems; emergency preparedness; slow onset events; comprehensive risk assessment and management; climate risk insurance; and resilience of communities, livelihoods and ecosystems.

**R4 is seen as a leading example of how climate risk management can address loss and damage by being integrated into safety nets.** In 2015, R4 was highlighted in numerous global fora. These included:

- **At the Conference of the Parties (COP21), the UN Secretary-General** mentioned R4 during the launch of the A2R – Anticipate, Absorb, Reshape – Climate Resilience Initiative,<sup>10</sup> as a transformative project linking insurance and social protection.
- **At the 2015 Third UN World Conference on Disaster Risk Reduction**, held in Sendai, Japan in March 2015, Ethiopia's State Minister of Agriculture highlighted R4 as an effective disaster risk reduction approach.

**At the national level**, R4 has shaped the way governments, NGOs, the private sector and local partners approach risk management for smallholder farmers. Some examples of the initiative's policy engagement include:

#### **Integrating the R4 model into Ethiopia's PSNP**

A Memorandum of Understanding has been signed between the DRMFS of the Ministry of Agriculture, which leads on the design and implementation of the PSNP, to explore the possibility of integrating R4 in the PSNP. As part of this effort, a Steering Committee was set up in 2015, chaired by the head of the DRMFS and including stakeholders from OA, WFP, International Labor Organization (ILO), the Early Warning and Response Directorate, REST, and ORDA. The Steering Committee has created a Technical Committee to define a work plan and budget to carry out the integration of R4 within the PSNP.

#### **R4's Collaboration with the Government of Senegal's National Delegation for Social Protection**

The government of Senegal has prioritized social protection in rural areas. Recent revision of its National Social Protection Strategy provides an opportunity to integrate R4's risk management model within the national strategy and ensure the extension of the government's social protection mechanisms in rural areas. R4 has consulted extensively with the parliamentary committee in charge of Social Protection, the Economic and Social Commission, and the General Delegation on Social Protection. As a result, OA is now part of the working group engaged in drafting the social protection strategy.

#### **2015 Climate Week NYC Event**

Nearly five years after the initial launch of R4, OA and WFP co-organized a high-level policy discussion during Climate Week NYC entitled "The Role of Public-Private-People Partnerships in Building Resilience of Vulnerable Communities." The panel discussion was moderated by the Deputy Editor of ClimateWire. The Executive Director of Oxfam International and WFP's Deputy Executive Director both made opening remarks. Panelists included the State Minister of Agriculture of the Government of Ethiopia; the Executive Director of the Relief Society of Tigray; OA's Vice President for Programs; the Chief of WFP's Climate and Disaster Risk Reduction Unit and the Deputy Director of IRI, Earth Institute at Columbia University. In his speech, the State Minister of Agriculture strongly supported the integration of R4 within the PSNP. During the policy discussion, R4 partners reflected on successes, challenges, opportunities, lessons learned and the importance of people-centered approaches to development to generate large-scale finance and action to build resilience against climate change. The Politics of Poverty blog post<sup>11</sup> summarizes key messages from discussions.

9. 2015 saw an historic agreement on climate change reached by the parties to the United Nations Framework Convention on Climate Change (UNFCCC) at the 21st session of the COP21 in Paris. This agreement is essential for limiting the extent of climate change and mitigating its impacts, particularly on the most vulnerable populations. The objective of the Paris Agreement is to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty. It includes three sub-goals: (1) Limit the increase in the global average temperature to well below 2 °C; (2) Increase the ability to adapt to the adverse impacts of climate change, foster climate resilience and pursue sustainable development with low greenhouse gas emissions and stable food production; and (3) Ensure that financial flows are consistent with a path towards low greenhouse gas emissions and climate-resilient development.

10. <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/>

11. Oxfam America (2015). *Putting the missing "p" in public-private-partnerships: Lessons from the R4 Rural Resilience Initiative* [http://politicsofpoverty.oxfamamerica.org/2015/10/putting-the-missing-p-in-public-private-partnerships-lessons-from-the-r4-rural-resilience-initiative/?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+oxfamamerica%2Fpoliticsofpoverty+%28Oxfam+America%27s+Politics+of+Poverty%29](http://politicsofpoverty.oxfamamerica.org/2015/10/putting-the-missing-p-in-public-private-partnerships-lessons-from-the-r4-rural-resilience-initiative/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+oxfamamerica%2Fpoliticsofpoverty+%28Oxfam+America%27s+Politics+of+Poverty%29)



Plantin seedlings on bunds in Libokemkem, Ethiopia.  
*REST / Asmamawu Mihret*

## Conclusion

### Funding progress

R4 has raised over US\$5,360,000, allowing the program to grow in Ethiopia and Senegal during 2015. By reaching four countries by 2014, R4 accomplished the geographical expansion objectives set out in 2011 when the program started.

The R4 model continues to attract substantial interest from both private sector and state donors. Considering the commitments

put forward by donors prior and during COP21, particularly around loss and damage, there are great opportunities in the next few years to expand and replicate the initiative in other countries.

Figure 10 shows the contributions of R4's current donors and technical partners.

**FIGURE 6. Donor contributions to R4**

Donor	Recipient	Total contribution (USD)	Countries	Funding period
Swiss Re	Oxfam America	1 250 000	Ethiopia, Senegal	(2012–2016)
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)
Swiss Agency for Development and Cooperation - SDC	WFP	6 579 000	Malawi, Zambia	(2014–2017)
Margaret A. Cargill Foundation	Oxfam America	5 000 000	Ethiopia, Senegal	(2015–2016)
FAHU Foundation	Oxfam America	60 000	Ethiopia	2015
France	WFP	300 000	Senegal	2015
<b>TOTAL</b>	<b>WFP/OA</b>	<b>26 046 453</b>	<b>All</b>	

## Looking ahead

WFP and OA America launched the R4 Rural Resilience Initiative in 2011. Their strategic partnership builds on the success of OA's Horn of Africa Risk Transfer for Adaptation project and builds on each other's strengths, networks, and institutional opportunities to test and scale up a comprehensive risk management approach to help communities be more resilient to climate variability and shocks.

In 2015, the initiative expanded in Ethiopia and Senegal, while starting in Malawi and Zambia. A feasibility study was also carried out in Kenya to assess the viability of the R4 approach in arid and semi-arid regions. 2015 also saw the biggest payout in the history of R4 with over US\$445,000 being distributed to insured farmers in Ethiopia and Senegal due to the dry conditions brought by El Niño (this figure includes basis risk payouts).

In October 2015, the R4 Global Team met in Boston to assess the first five years of the WFP/OA partnership in R4 and agree a way forward. The discussion led to a commitment to operate in 5-15 countries (impacting between one and five million people) in the next five year phase of the partnership. It is planned to integrate R4 into national safety net systems and climate change adaptation plans, supporting at least 500,000 households become food secure and resilient, and encouraging at least 200,000 to become

commercial insurance customers. R4 will help these households diversify, increase their income and become more productive, maintaining a strong focus on large-scale community engagement.

Core strategic paths identified by the team to reach this objective include:

- integrating the R4 approach into national safety nets;
- leverage innovative delivery mechanisms, such as mobile platforms;
- contributing to the creation of enabling policy environments for scaling up integrated social protection and comprehensive climate risk management programs, like R4, with a dedicated focus on social protection, food security, agriculture, climate change and enhancing resilience;
- strengthening capacity of key national stakeholders (public and private);
- building an R4 advisory and technical service to support governments to develop R4 programs – both in countries where R4 is operating and in new countries;
- continuing to make R4 a center of innovation and learning, focusing on measuring the impacts of integrated climate risk management in safety nets as well as developing operational tools needed to achieve scale; and
- develop a coherent strategy for market-based systems.



Market in Monze, Southern Province, Zambia.  
WFP / Nick Ophoff

# Annex I: R4 partners and institutional roles

## Our local/national partners in Ethiopia

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

## Our local/national partners in Senegal

- **Agence Nationale de Conseil Agricole et Rural (ANCAR) - National Agency for Rural and Agricultural Assistance:** Technical agency affiliated with the Ministry of Agriculture. In Koussanar, it is responsible for leading community awareness and mobilization activities, and providing seeds as well as technical advice to farmers. Like PAPIL and INP (listed below), ANCAR is a key partner for the Risk Reduction component.
- **Agence Nationale pour l'Aviation Civile et de la Météorologie (ANACIM) - National Meteorological and Civil Aviation Agency:** ANACIM helps with the design of insurance product(s) by providing historical and current climate data, and installing and maintaining weather stations.
- **Union des Institutions Mutualistes d'Epargne et de Credit (U-IMCEC) - Savings and Credit Cooperatives' Union:** A microfinance institution with which we are currently implementing the risk taking component particularly the warrantage and other financial products tailored to the needs of rural women. It is a growing institution seeking to expand its network in rural areas especially.
- **Compagnie Nationale d'Assurance Agricole du Senegal (CNAAS) - National Agricultural Insurance Company of Senegal:** Senegal's only agricultural insurance company (public-private company founded in 2008 by the government). It is the insurance provider for the product(s) offered under the Risk Transfer component.
- **Institut National de Pédologie (INP) - National Institute for Pedology:** Technical agency affiliated with the Ministry of Agriculture, in charge of soil conservation and restoration projects, including building stone bunds and check dams, and composting.
- **BAMTAARE:** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Tambacounda.
- **PASA:** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kongehuel.

- **Caritas Kolda:** Religious organization carrying out DRR projects on access to water and sanitation, production and processing, and migration management, and leading voucher distribution in Kolda.
- **La Lumière:** A grass-root Senegalese NGO which provides financial services to low-income rural households. It is the current implementation partner for Oxfam's Saving for Change program in Senegal, and the implementation partner for the Risk Reserves component.
- **Projet d'Appui à la Petite Irrigation Locale (PAPIL) - Project to Support Small Local Irrigation:** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kolda.
- **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.
- **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 the insurance. Approver of insurance products and manages insurance risk in the insurance market.
- **Malawi Meteorological Department:** Responsible for climate change assessments, weather forecast, early warning information and works in collaboration with DoDMA and MOA in the dissemination of early warnings to the people of Malawi.
- **Ministry of Agriculture (MOA):** Responsible for agriculture policies and programs at national and local level. It supports provision of extension services in the R4 project areas.
- **Ministry of Finance Economic Planning and Development (MoFEP&D):** Oversees the National Social Support Policy that governs the establishment of sub-programs including Social Cash Transfer Scheme (SCTS), Public Works Programme (PWP), School Meals, Village Savings and Loans (VSL) and Microfinance. Strategic partner to establish technical and operational synergies with existing programs.
- **NICO Insurance Company:** Main insurance underwriter for index-based insurance products in Malawi.

## Our local/national partners in Malawi

- **Balaka District Council:** The local government administrative authority responsible for the implementation of FFA in the district, which includes activities like community mobilization and training, distribution of project inputs, supervision and monitoring, as well as liaising with other relevant District authorities.
- **Concern Universal (CU):** Long term presence in the country with a strong community-oriented approach, and experience in agriculture and savings projects. Supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.

## Our local/national partners in Zambia

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

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

## Our global partners

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

# Annex 2: Metrics from the field

## ETHIOPIA



### Risk Reduction

The following DRR activities were undertaken in Tigray:

- Excavation of 1,286 m<sup>3</sup> of soil for construction of 47 percolation ponds, surpassing the target of 28 ponds – these structures will enhance moisture availability and increase ground water recharge on lower catchments;
- Plantation of different multi-purpose trees using 191,573 seedlings (exceeding the plan of 150,000) to strengthen stability of trenches.
- Rehabilitation of over eight kms of gullies (exceeding the target of seven kms) with the construction of check dams supported with plantation of 310,000 cuttings of elephant grass. This included construction of loose check dams with capacity of 2,846 m<sup>3</sup> and 198 m<sup>3</sup> capacity gabion check dams;
- Construction of 32 kms of deep trenches (in 1m x 1m x 4m lengths).
- Construction of 28 kms of simple runoff diversion structures (exceeding a target of 12 kms) by excavating 28,254 m<sup>3</sup> of soil in order to enable irrigation on 650 hectares of land, directly benefiting 5,657 farmers.
- Establishment and maintenance of micro-gardens benefiting 1,015 female-headed households (FHHs); purchase and distribution of 50 kg of tomatoes, 50 kg of cabbage, 50 kg of lettuce, and 50 kg of onion seeds among FHHs.

- Plantation of 171,508 pads of cactus (exceeding the 170,000 planned) in backyards and on communal land, benefitting 2,998 farmers.
- 2,058 compost pits prepared by 1,100 FHHs. The compost was used by farmers to grow vegetables in their backyard plots and for the planting seasons. 500 FHHs received training on best practices in compost making; and
- Agricultural tools (1,581 watering cans, 1,000 shovels, 1,000 pickaxes, and over 500 gabion boxes) distributed to support DRR activities.

In Amhara, soil and water conservation efforts included:

- Construction of 2.3 km of terraces and maintenance of an existing 0.5 km of terrace.
- Construction of 2,000 meters of trenches, 500 half-moon contour bunds, check dams with capacity of 50 m<sup>3</sup>, gabion check dams of 420 m<sup>3</sup> capacity, seven kms of stone faced soil bunds, 2.6 kms of stone bunds, six kms of soil bunds, 4.6 kms of hillside terraces, 3.3 kms of hillside terrace with trenches, 151 micro-trenches, 54 eyebrow basins, 183 micro-basins and 460 micro-trenches; and
- Preparation of 84,260 pits and plantations of different species of trees including leucaena trees, vetiver grass and elephant grass.



### Risk Transfer

- Insurance indices for 81 villages were refined, based on the performance of the indices in previous years.
- In Tigray, a total of 25,773 farmers purchased insurance, of whom 8,778 (34 percent) are women.
- In Amhara, 1,895 farmers purchased insurance, 24 percent of them female.
- The total sum insured in 2015 was 30,901,700 ETB, or US\$1,457,627, with a total premium of US\$264,781 (ETB 5,613,359).
- The average sum insured per participant increased four percent from US\$52 (1,082 ETB) in 2014 to US\$54 (1,125 ETB) in 2015.

- Of the 27,668 farmers registered for insurance in 81 villages in Tigray and five villages in Amhara, 25,773 farmers in Tigray were compensated due to the adverse conditions. Of these, 15,048 farmers received payouts from insurance companies. The remaining 10,725 received a compensation from the US\$200,000 supplemented by the Basis Risk Fund. The average payout was US\$14.10.
- A hybrid product based on the Enhanced Vegetation Index (EVI) was integrated into the ARC2 index's late window contract for a dry run in 2015 and has shown positive results showing better performance of the hybrid index compared to ARC2 in the majority of villages.



## Prudent Risk Taking and Risk Reserves

**In Tigray**, each of the 2,408 households organized under Village Economic and Social Associations (VESAs) have accessed an average loan amount of US\$140 (ETB 3,000) via Rural Savings and Credit Cooperatives (RUSACCOs) to start income generating activities (IGAs).

### In Amhara:

- 1,585 farmers are organized into 83 Village Savings and Loan Groups (VSLGs) in five villages.

- The groups have saved a total of US\$8,504 (ETB 180,870).
- A total of US\$16,140 (ETB 343,246) has been loaned to 1,415 VSLG members (including 244 women) for small businesses involved in trading grain, purchasing inputs, and other petty trade activities and also for covering such unforeseen expenses as health care.
- A total of 463 VSLG members (124 women) accessed loans worth US\$100-200 (ETB 2,000-4,000) each through a revolving fund of US\$22,950 (ETB 459,000) set up in 2013; 94 percent of loans have been repaid.
- ORDA conducted training in sheep rearing, forage development and veterinary services for 463 farmers (124 women) selected for loans.

## SENEGAL



## Risk Reduction

### In Tambacounda:

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

### In Kolda:

- 345 metric tons (MT) of rain fed rice cultivated on 115 ha of recovered land;
- rice yields varied from 3 tons to 4 tons per hectare. Average yields across ten sites were 3.5 MT/ha. Total rice production of 414 MT (20 percent increase over 2014);
- commencement of run-off water mobilization works to harvest and store rainfall for rice cultivation and groundwater recharge;
- assets built during the dry and the rainy seasons surpassed planned targets:
- 17,470 LM of small embankments separating rice plots (diguettes de parcellisation) built out of the 10,000 LM planned;

- 1,665 LM of stone bunds built along the slope of valleys and ponds; and
- 2 wells built in Tamsir Sare and Sare Pathé Kamako, with 3 more built in the market garden perimeters of Sare Sare, Demba, and Oumar Sy.
- market gardening was practiced in all R4 sites, an income-generating activity allowing women to increase their income and improve the food security of their households.
- 37 Kg of vegetable seeds for 14 hectares of market gardening distributed; and
- 221 MT of food delivered to 1,993 participants (1,139 men and 854 women) in October 2015.

### In Kafrine:

- 164 ha sown with rain-fed rice;
- seeds of pepper, tomato and okra distributed via the gardening production program and sown in 15.4 ha;
- 372 MT of food distributed to 3,755 participants;
- 1,398 farmers trained in agricultural production innovative techniques;
- 5 run-off water assets rehabilitated;
- 6 market garden perimeters fenced;
- 15,063 LM dikes of small embankments separating rice plots built, surpassing the annual target of 4,000 LM;
- 6,586 LM of stone bunds built, surpassing the 1,000 LM target;
- soil defense protected 195 ha of land in valleys and lowlands exposed to silting;
- one pond for livestock watering created; and
- 458 MT of rice produced on 164 ha, yields varying from 3.4 to 1.9 MT/ha, depending on the sites.



## Risk Transfer

- 3,621 farmers insured in Kolda and Tambacounda. 3,388 farmers insured through the IFA scheme (of whom 1,236 were women), and 233 insured through the partnership with IFAD funded program PADAER.
- Total premium amounts to US\$87,103 (52,697,146 CFA) and total sum insured US\$592,888 (358,697,465 CFA).
- Under the IFA: total premium of US\$70,975 (42,939,780 CFA) of which US\$34,897 (21,082,390 CFA) was paid by WFP, US\$640 (387,500 CFA) paid by farmers, and the remaining 50 percent subsidized by the Government. IFA sum insured amounted to US\$485,473 (293,711,064 CFA).
- Under PADAER: total premium: US\$15,306 (9,183,366 CFA) of which US\$1,463 (877,535 CFA) paid by farmers.
- Under IFA, insurance was introduced for the first time in Kolda through a commercial insurance product covering rice (rainfall-based) developed by PG/CNAAS for the USAID-funded project Naatal Mbay.
- Of 3,388 IFA farmers, 287 were part of Naatal Mbay, located in 9 villages in the Medina el Haj area; and
- Under Naatal Mbay the total premium was US\$957 (574,000 CFA) and total sum insured US\$15,218 (9,130,601 CFA).

## Index monitoring

- All locations in Tambacounda, except Woundoudou Amirou, triggered.
- Based on data collected by *Institut Sénégalais de Recherches Agricoles* (ISRA), Woundoudou Amirou was identified as the location that received the least amount of rain in the area. Decision taken to make basis risk payout in this location of 10 percent of sum insured.
- 3,334 farmers received payouts in Tambacounda, none in Kolda.
- Total payout received by insured farmers is of US\$80,969 (48,985,951 CFA); and
- Total loss ratio was 92.96 percent.

## Stock and livestock Insurance

- Training event organized on stock and livestock insurance products by CNAAS.
- Action plan for promotion and marketing of stock and livestock insurance products in place; and
- Livestock insurance sold in R4 locations.

## Result of ISRA first report of the campaign

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



## Risk Reserves

- 650 savings groups created since the beginning of the project (518 for women, 132 for men), engaging 16,089 members (12,997 women and 3,092 men).
- Total cumulative current savings US\$125,194 (75,742,400 CFA).

- 10,970 members took out loans from the savings groups: value of the loans portfolio US\$110,002 (66,551,200 CFA).
- Working with CNAAS 11 associations of savings groups (10 in Tambacounda and 1 in Kolda) have used as a delivery channel for insurance in 2015; and
- 35 savings groups in Tambacounda shared their funds (US\$27,015) to prepare for the rainy season.



## Prudent Risk Taking

- 40 cereal bank management committee members trained on stock management and *warrantage*; and

- Under the revolving credit fund, 15 associations of savings groups in Tambacounda and Kolda accessed revolving credit for income-generating activities from *L'Union des Institutions Mutualistes Communautaires d'Épargne et de Crédit* (IUMCEC) totaling US\$17,325.

## MALAWI



### Risk Reduction

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

#### Water and sanitation

- revamped and trained 44 Village Health Committees that actively participate in promoting water and sanitation activities;
- 16 boreholes maintained;
- 1 borehole rehabilitated, benefitting 71 households; and
- 3 shallow wells built.

#### Forestry

- 132,000 seedlings raised and shared among households for enhanced agroforestry and wood production.
- 56 Village Natural Resources Management Committees revamped and trained; and
- 48 woodlots maintained and 33 new created.

#### Nutrition

- 735 backyard gardens established;
- demonstration plots set up for drought resistant crops: cassava, sweet potatoes, sorghum, millet and pigeon peas;
- 48 nutrition groups formed to train participants in food diversification, budgeting, food processing, preservation; and
- 9 fish ponds maintained.

#### Land and soil management

- 2,040 m of swales (to manage water run-off) built, conserving 3.06 hectares of land;

- 15,645 m of marker ridges constructed, conserving 234.7 hectares of land;
- 7,430 composite manure pits built and used by 1486 households;
- promotion and training on CA, resulting in 351 plots under CA;
- ridge realignment promoted in all 5 Group Village Heads (GVHs); and
- 7 vetiver nurseries established.

#### Irrigation

- rehabilitation of Muthe Irrigation Scheme, involving 40 out of 76 hectares of rice land;
- 17 hectares of land irrigated under micro irrigation scheme with different crops planted;
- 12 permanent shallow wells constructed; and
- farmers continuously trained in irrigation scheme operation and maintenance.

#### Gender and HIV prevention

- 4 community-based organisations (CBOs) supported and trained;
- condom distribution and HIV testing and counselling conducted during community meetings and food distributions. 98 people tested (77 percent ),and
- HIV/AIDS sensitization campaigns.

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

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



### Risk Transfer

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



### Risk Reserves

- 29 new village savings and loan (VSL) groups and 53 re-vamped groups shared out on December 15, 2015;
- shared amount was approximately US\$13,500 (10 million MK) plus dividends of roughly 20 percent. Groups formed during the quarter, which are newer, did not share out.

- Other groups also decided to wait till the lean season to share out;
- in addition to the existing 82 groups, R4 expanded into an additional GVH in Silika, adding 560 participants to the program; and
- mapping and formation of new VSL groups conducted in GVH Silika with a total of 32 new VSL groups established.

## ZAMBIA



### Risk Reduction

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



### Risk Transfer

- 499 farmers applied CA on 1 or more ha of land and participated in CA training to gain access to the insurance component (236 men and 264 women).
- Total sum insured: US\$74,300 (ZMW 846,525).
- Total premium: US\$9,213 (ZMW 104,969).
- Training of trainers on weather index insurance (WII) for 48 lead farmers and farmer club committee members, including topics on financial literacy, and farming as a business.
- Installation of manual rain gauges and 1 automatic weather station; and
- 18 lead farmers trained on rainfall measurement and recording using manual rain-gauges.



### Prudent Risk Taking

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

# Annex 3: Advocacy, media citations and resources

## In the News

- UN Secretary-General's initiative aims to strengthen climate resilience of the world's most vulnerable countries and people: <http://www.un.org/sustainabledevelopment/blog/2015/11/un-secretary-generals-initiative-aims-to-strengthen-climate-resilience-of-the-worlds-most-vulnerable-countries-and-people/>
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- Stephan Faris, "[Seeds for Change](#)", Time (Sept. 24, 2012).
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## Stories/BLOGS

[“Putting the missing “p” in public-private-partnerships: Lessons from the R4 Rural Resilience Initiative”](#)

[“Dear G7 Leaders: Insurance is hardly enough. Trust us, we know from experience”](#)

[“Ethiopian Farmers Get a Payout, Easing Effects of Drought”](#)

[“With Insurance, Loans, and Confidence, This Ethiopian Farmer Builds Her Resilience”](#)

[“In Northern Ethiopia, Weather Insurance Offers a Buffer Against Drought”](#)

[“Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought”](#)

[“Medhin Reda’s Best Asset Is Her Own Hard Work”](#)

[“Gebru Kabsay Relies on Rain But Has the Security of Insurance”](#)

[“Selas Samson Biru Faces Uncertainty with the Seasons”](#)

## Videos/multimedia

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

[R4: The Rural Resilience Initiative](#)

*A Tiny Seed and a Big Idea*

*A New Tool for Tackling Poverty*

## Photography

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

## Partner Reports

- [IRI FINAL 2013 End of Season Assessment Report](#): This report provides an assessment of the 2013 rainfall season for the R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2013 indices.
- [HARITA IRI Updated 2012 HARITA Initial End of Season Assessment October 2012](#): This report is a deliverable by the International Research Institute for Climate and Society (IRI) to Oxfam America. It provides an early, exploratory assessment of the 2012 rainfall season for the HARITA/R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2012 indices.
- [HARITA IRI Report to Oxfam America March 2012](#): This report is a deliverable by the IRI to Oxfam America on the 2012 index development processes and presents the final indices offered in the project villages.

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

## Other reports

- Million Tadesse and Marjorie Victor, “Estimating the Demand for Micro-Insurance in Ethiopia,” Oxfam America (2009). A report commissioned by the International Labour Organization and the United Nations Capital Development Fund.
- 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.



Farmers build water and soil conservation assets such as stone bunds in exchange for insurance, Tambacounda, Senegal.  
*WFP / Carla De Gregorio*

# Annex 4: Rural resilience event series

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

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

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



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



# 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.

[www.wfp.org/r4](http://www.wfp.org/r4)

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Oxfam America is an international relief and development organization that creates lasting solutions to poverty, hunger, and injustice, working with individuals and local groups in more than 90 countries. Oxfam America does not receive funding from the US government.

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