R4 Rural Resilience Initiative

ANNUAL REPORT

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WFP World Food Programme

OXFAM America

Cover: Cathreen, an R4 farmer, bagging maize at her house in Malawi.
WFP/Badre Bahaji

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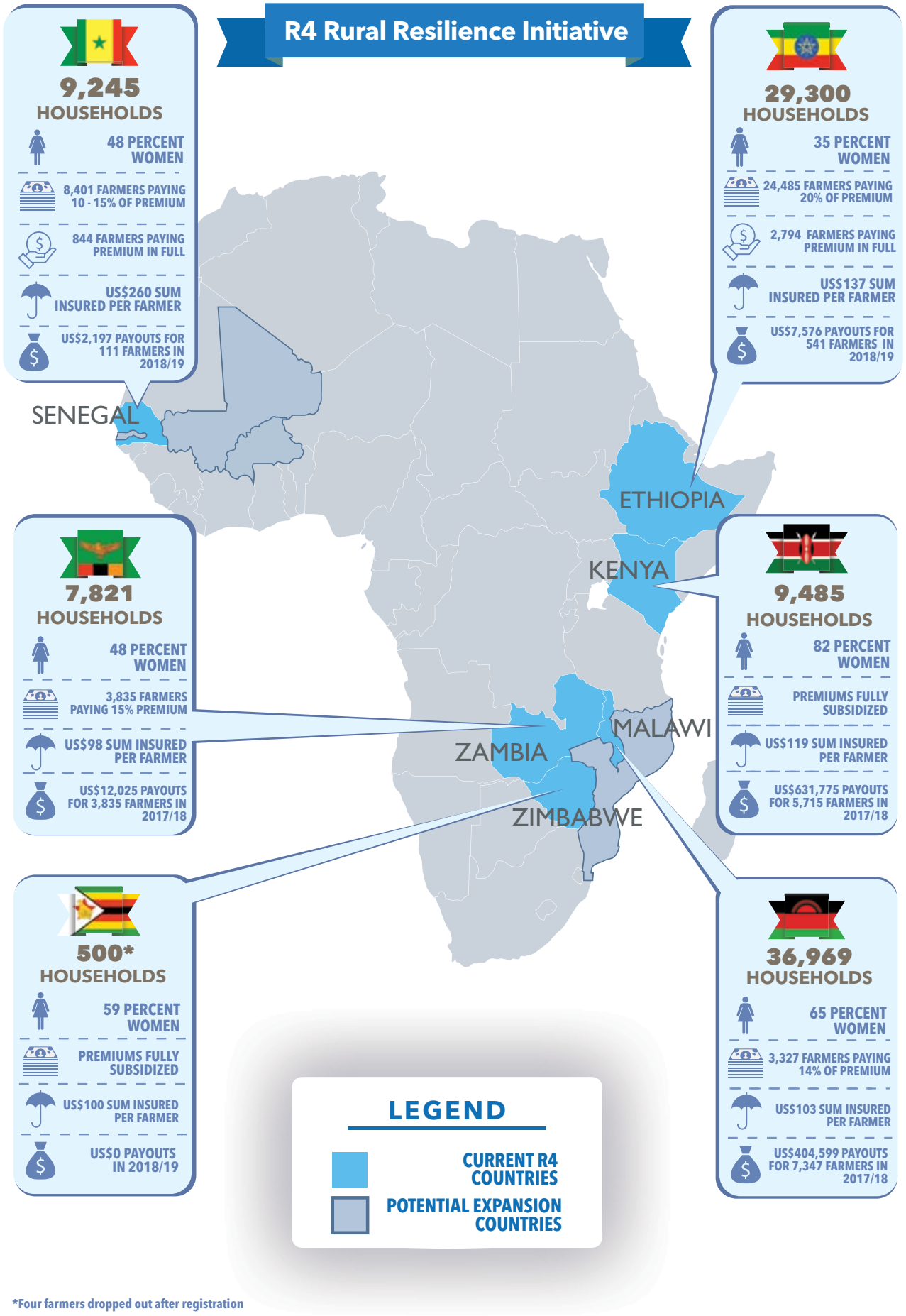
Acronyms

AIC	Africa Insurance Company
ANACIM	Agence Nationale pour l'Aviation Civile et de la Météorologie
ANCAR	Agence Nationale de Conseil Agricole et Rural
AQZ	Aquaculture Zimbabwe
AYII	Area Yield Index Insurance
ASALs	arid and semi-arid lands
CA	Conservation agriculture
CASU	Conservation Agriculture Scale Up Project
CERAAS	Centre d'étude regional pour l'amélioration de l'adaptation à la sécheresse
CIMMYT	International Centre for Maize and Wheat Improvement
CNAAS	Compagnie Nationale d'Assurance Agricole du Sénégal
CO	Country Office
CSI	Coping Strategy Index
CSP	Country Strategic Plans
DAPP	Development Aid from People to People
DCCMS	Department of Climate Change and Meteorological Services
DECSI	Dedebit Credit and Savings Institution
DFID	Department for International Development
DMMU	Disaster Management and Mitigation Unit
DoDMA	Department of Disaster Management Affairs
FAO	Food and Agriculture Organisation
FbF	Forecast-based Finance
FCA	Foreign Currency Account
FCS	Food Consumption Score
FEWS NET	Famine Early Warning Systems Network
FFA	Food Assistance for Assets
FGD	focus group discussion
FHH	female-headed household
FICA	Government of Flanders International Cooperation Agency
FISD	Foundation for Irrigation and Sustainable Development
FSIN	Food Security Information Network
GCF	Green Climate Fund
GFCS	Global Framework for Climate Services
GVH	Group Village Head
HARITA	Horn of Africa Risk Transfer for Adaptation
IFAD	International Fund for Agricultural Development
IGA	income generating activity
IRI	International Research Institute for Climate and Society
ISD	Institute for Sustainable Development
KCEP-CRAL	Kenya Cereal Enhancement Programme- Climate Resilient Agricultural Livelihoods Window
KfW	German state-owned development bank

KPI	Key Performance Indicators
MAL	Ministry of Agriculture and Livestock
MEL	monitoring, evaluation and learning
MFI	microfinance institution
MLAWCRR	Ministry of Lands, Agriculture, Water, Culture and Rural Resettlement
MoALF&I	Ministry of Agriculture, Livestock, Fisheries, and Irrigation
NDMA	National Drought Management Authority
NMA	Ethiopian National Meteorological Agency
OA	Oxfam America
OMICO	Old Mutual Insurance Company Private Limited
ORDA	Organization for Rehabilitation and Development in Amhara
PADAER	Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise Développement Agricole et à l'Entreprenariat Rural
PAPIL	Projet d'Appui à la Petite Irrigation Locale
P4P	Purchase for Progress
PICSA	Partcipatory Integrated Climate Sercives for Agriculture
PSNP	Productive Safety Net Program
RCI	resilience capacity index
REST	Relief Society of Tigray
RIMA	Resilience Index Measurement and Analysis
RUSACCO	Rural Savings and Credit Cooperative
RWH	rain water harvesting systems
SAMS	Smallholder Agricultural Market Support
SDC	Swiss Agency for Development and Cooperation
SfC	Saving for Change
SIIPE	Satellite Index for Pastoralists in Ethiopia
SNV	The Netherlands Development Organisation
SNNRP	Southern Nations, Nationalities, and People's Region
U-IMEC	Union des Institutions Mutualistes d'Epargne et de Credit
WII	weather index insurance
WFP	World Food Programme
VESA	Village Economic and Social Associations
VFZ	Vision Fund Zambia
VSLG	Village Savings and Loan Group
ZMD	Zambia Meteorological Department

FIGURE 1. R4 Countries Map



*Four farmers dropped out after registration

Weather insurance boosts the resilience of Malawian farmers

Badre Bahaji, May 2018

This section reports an article published in May 2018 on R4 in Malawi. Dry spells during the last agricultural season, triggered payouts totaling US$404,599 for 7,347 farmers, the largest amount to date.

"I had never heard about weather insurance. I only knew about vehicle insurance," said Cathreen Thomas, a smallholder farmer living in Masaka, south of Malawi. "Last year, I harvested ten bags of maize, but this year, it did not rain for twenty-five days during the rainy season so I am only expecting to harvest two bags of maize this year," she added.

However earlier this year, Cathreen insured her crops against drought through the UN World Food Programme's (WFP) and Oxfam America's R4 Rural Resilience Initiative and received a payout of 38,000 Malawi Kwacha (US$55) as a compensation for the dry spells she experienced. "It's a relief for my family. I am planning to use the payout to buy seeds which I will plant in my newly irrigated fields."

One of the innovations under the R4 initiative is that poor farmers, like Cathreen, can pay for weather-index insurance through their labour. This means that a farmer has access to insurance by providing up to fourteen days of work within a period of two months. Farmers are required to create assets that contribute to improving their capacity to resist weather shocks, like irrigation systems.
"What I am very happy about is that I benefitted from crop insurance by digging swales. Because I dug these swales, my fields are moist from trapping water, soon, I will be planting seeds for my next crop." said Cathreen.

Petros Malunga, 29, also lives in Masaka. He was one of the first smallholder farmers to join the R4 Initiative. "Last year, I harvested twelve bags of maize, but this year I'm expecting only four bags. Elders in the village talk about how dry spells have become more intense and frequent. With my payout, I'm going to buy seeds and work on my garden which will bring me some benefits and help me get through the year" he said, whilst digging a trench in a field he irrigated, destined to be planted with sweet potatoes.

"This season in Malawi, more than 7,000 drought-affected families will receive an insurance pay-out valued at around US$400,000. This is the first time that a weather index insurance programme has delivered payouts at such a large scale in Malawi," said Benoit Thiry, Country Director for WFP Malawi. "Given the impacts of climate change, weather insurance, a key element which complements other initiatives being undertaken to make people more resilient to weather-related shocks, needs to grow in Malawi."

Using a wide range of interventions and an integrated approach, including village saving and loans as well as micro-credit, WFP's R4 Rural Resilience Initiative has broken new ground in climate risk management by enabling the poorest farmers to pay for drought insurance with their labour, while developing their capacity to pay for it with cash.

The insurance is index based, meaning satellites are used to monitor rainfall and payouts are triggered automatically if rainfall is below pre-agreed amounts. Farmers are actively participating to develop a tailored product and greater understanding of insurance. They also collect records on rainfall levels to help track the likelihood of a payout.

The success of the R4 Rural Resilience Initiative wouldn't be possible without multi-stakeholder partnerships. WFP is implementing R4 in partnership with local stakeholders and the government supported by funding from Swiss Agency for Development and Cooperation, Government of Flanders International Cooperation Agency and DFID (United Kingdom).

R4 farmer and her daughter in a tree nursery in Malawi.
WFP/Badre Bahaji

Executive Summary

In 2018, the R4 Rural Resilience Initiative (R4) scaled up to over 87,000 farmers (55 percent women) benefiting approximately 545,000 people in Ethiopia, Senegal, Malawi, Kenya, Zambia, and Zimbabwe. In addition, nearly 6,000 non-R4 farmers have accessed insurance products developed by the R4 initiative, either delivered through non-WFP programmes or by paying their insurance premium fully in cash.

R4 significantly scaled up in Malawi, reaching over 36,000 farmers with insurance and expanding to three additional districts. The initiative also grew in Zambia, increasing its participants from 3,835 to 7,821 and expanding to four new districts. In Ethiopia, the initiative reached 29,300 farmers with weather index insurance. WFP also began offering insurance to pastoralists through the Satellite Index Insurance for Pastoralist in Ethiopia (SIIPE), with a total of 5,001 participants registered for the index-based livestock insurance in the Somali region of Ethiopia. In Senegal, the number of insured farmers has increased from over 6,000 to 9,245. In Kenya, the programme doubled the number of participants from over 4,000 to 9,485 in one year. This year also marked the introduction of the initiative in Zimbabwe, where the insurance product was finalized and piloted in the 2018/19 agriculture season, reaching 500 farmers.

Poor rainfall in parts of Africa during the 2017/18 agricultural season triggered the largest insurance payout to date for smallholder farmers participating in the R4 scheme. Overall, 31,000 farmers (52 percent women) received insurance payout totalling US$1.5 million to compensate for weather-related crop losses in Ethiopia, Kenya, Malawi, Senegal, and Zambia. Payouts enabled these vulnerable farming households to meet their basic needs such as buying food and paying for children's school fees, while also giving farmers the opportunity to invest a portion of the payout into seeds or fertilisers or livelihoods diversification activities, such as starting a small-scale family business. Since 2011, more than US$2.4 million in payouts have been distributed to R4 participants as compensation for weather-related losses.

FIGURE 2. R4 achievements

Planting year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Payouts			US$17,000	US$320,000	US$24,000	US$38,000	US$450,000	US$74,000	US$1.5m	US$9,800
Value of premiums	US$2,500	US$27,000	US$215,000	US$275,000	US$283,000	US$306,000	US$362,000	US$770,000	US$1.1m	US$1.7m
Total sum insured	US$10,200	US$73,000	US$940,000	US$1.3m	US$1.2m	US$1.5m	US$2.2m	US$4.9m	US$6.6m	US$10.3m
Cash contribution							US$43,000	US$86,000	US$78,000	US$128,000
R4 Farmers insured through WFP (percent of women)	200 (38)	1,308 (39)	13,195 (33)	19,407 (21)	20,015 (31)	24,970 (33)	29,279 (32)	37,419 (40)	51,955 (50)	87,557 (55)
Non-R4 Farmers insured*							3,918	4,448	6,603	5,763
Countries	Ethiopia	Ethiopia	Ethiopia	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Senegal	Ethiopia Malawi Senegal Zambia	Ethiopia Malawi Senegal Zambia	Ethiopia Kenya Malawi Senegal Zambia	Ethiopia Kenya Malawi Senegal Zambia Zimbabwe

* Farmers accessing insurance developed through the R4 Initiative, either subsidized through other programmes or paying fully in cash.

Our vision: 500,000 insured farmers in 2022.

Foreword

The effects of extreme weather events force some 26 million people into poverty every year.[1] It is estimated that the risk of hunger could increase by up to 20 percent by 2050 unless increased efforts are made to enable the world's most vulnerable communities to better prepare for, respond to and recover from climate shocks and stresses. A 2012 study by the Boston Consulting Group for the Africa Risk Capacity (ARC) concluded that every US$1 spent on early interventions saves nearly US$4.5 spent after a crisis materializes.[2] In such a context, humanitarian and national actors must adopt planning and financing instruments which enable a more forward-looking and prevention-focused approach to climate risk management.

The World Food Programme recognizes that a comprehensive set of integrated risk management strategies can reinforce the ability of food insecure communities to recover from and cope with future shocks. The R4 Rural Resilience Initiative is a tried and tested example of an integrated programme which empowers communities and households to manage weather shocks and adapt to the effects of climate change. It demonstrates how social safety nets can be conceived to protect vulnerable people, but also to reduce and transfer the risks of disasters on food systems, communities and productive ecosystems.

Over the past years, WFP has worked with its global partner Oxfam America to translate the R4 concept into a context based, participatory and results- oriented risk management model which was consistently being mainstreamed into WFP country strategies and programmes. This has included efforts to develop strategic and operational linkages with other key areas of WFP's work, including asset creation and livelihoods, social protection, smallholder access to markets, and nutrition. Such work is essential not only to take the integrated approach to a larger scale, but also to ensure its sustainable contribution to SDG 2 – zero hunger by 2030.

In 2018, R4 has provided over 87,000 families (about 545,000 people) in Ethiopia, Senegal, Malawi, Zambia, Kenya, and Zimbabwe with access to index insurance and a range of complementary risk management options. Moreover, nearly 6,000 non-R4 farmers have accessed insurance products developed by the R4 initiative, either delivered through non-WFP programmes or by paying their insurance premium fully in cash. Local partners across all countries have delivered a solid performance in educating smallholder farmers in vulnerable settings on weather index insurance products, financial literacy, and engaging local communities in building and maintaining community assets for disaster risk reduction.

Traditional and new donors are committed to supporting the R4 Initiative and scaling-up the integrated approach in existing and new countries. In 2018, support from the UK's Department for International Development (DFID) has allowed a large scaling up and expansion of the R4 climate risk management approach in Malawi. The German Kreditanstalt fuer Wiederaufbau (KfW) has committed to scale up R4 in Ethiopia, where the initiative aims to reach 180,000 households and expand its intervention to the Oromia region and to the Southern Nations, Nationalities and People's Region (SNNRP) by 2021.

Strong demand from smallholder farmers, in tandem with the continued support from donor partners, is extremely encouraging. Building on the evidence and lessons generated to date, 2019 will continue to see an important expansion of R4 within its current programme countries and beyond, replicating the approach in the Sahel, South Asia, and the Latin America and Caribbean region.

Gernot Laganda
Chief, Climate and Disaster Risk Reduction Programmes Unit
World Food Programme

1. Hallegatte et al. 2017. Disasters and Climate Change Economics: A New Journal for a Changing World. *Economics of Disasters and Climate Change*. Volume 1, Issue 1.
2. African Risk Capacity. 2012. *The cost of drought in Africa*.

Old Mutual staff explaining the performance of the index to the community in Masvingo Ward 17, Zimbabwe.
WFP/Lorenzo Bosi

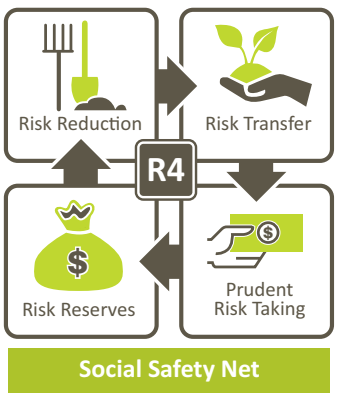
The R4 Rural Resilience Initiative

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.

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 reaches 87,557 vulnerable farmers** (55 percent women) and their families in Ethiopia, Senegal, Malawi, Zambia, Kenya, and Zimbabwe with an integrated risk management strategy that combines four components: **improved natural resource management through asset creation or improved agricultural practices** (risk reduction), **microinsurance** (risk transfer), **increased investment, livelihoods diversification, and microcredit** (prudent risk taking) and **savings** (risk reserves). In addition, 5,763 farmers access insurance developed under R4, either subsidized through other programmes or paying fully in cash.



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 a 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. Rapid 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. R4 is also implementing an Area Yield Index Insurance (AYII) product as part of its risk transfer component in Kenya. AYII can offer coverage against a host of risks including pests and uses crop sampling at the end of season to determine value loss. Due to the inherent design of AYII, expected payout timeframe is longer compared to weather index-based insurance, but shorter than traditional agriculture insurance.

R2. Risk Reduction

Those households that are cash constrained have the option to pay insurance premiums by engaging in asset creation 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. The risk reduction component is usually built into government safety net and other programmes, as well as WFP Food Assistance for Assets (FFA) initiatives.

Farmers contribute their labour to risk reduction activities identified through participatory assessment and planning. In Ethiopia, Malawi, Zimbabwe, Kenya and Senegal, asset creation activities have contributed to natural resource rehabilitation and agricultural development. In Zambia, farmers apply conservation agriculture (CA) techniques to improve their agricultural productivity and sustainability.

R3. Prudent Risk Taking

Smallholder farmers are often reluctant to invest in productive inputs or hired labour 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 labour, knowing that the financial risk of drought is minimized.

R4. Risk Reserves

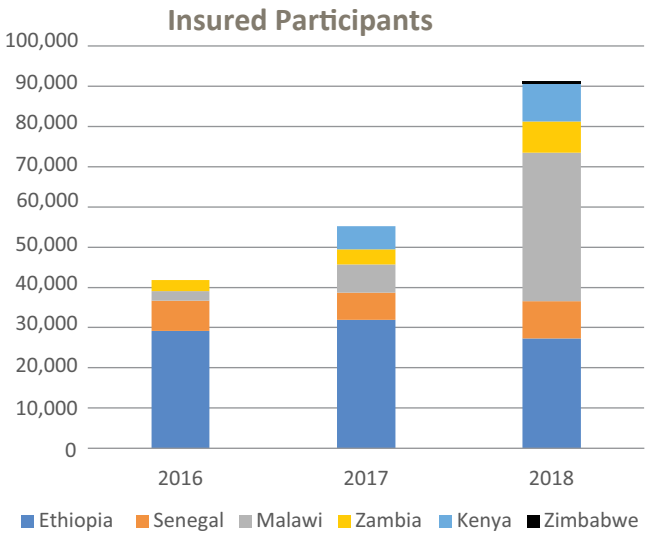
Through individual or group savings, farmers can build a financial base that serves multiple purposes. For instance, they provide a buffer for short-term needs, increasing a household's ability to cope with shocks. Group savings can be loaned to individual members with particular needs, providing a self-insurance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

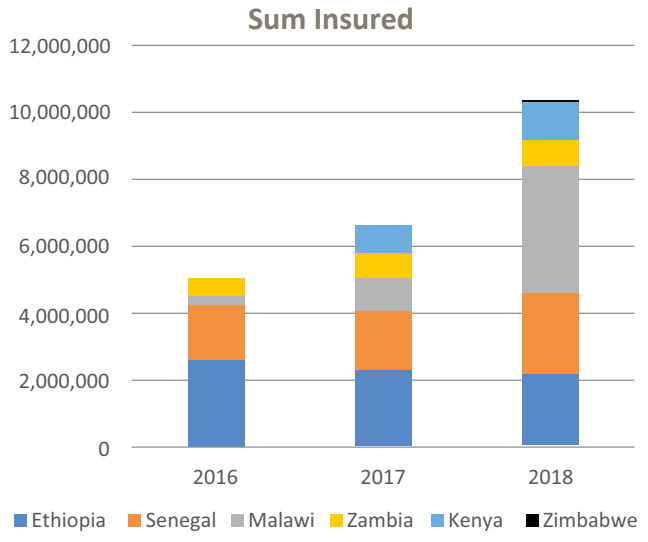
Farmers take part in a sensitization activity to increase their knowledge and interest in insurance in Nsanje, Malawi.
WFP/Jyothi Bylappa

Project Status

R4 reached 87,557 farmers in Ethiopia, Senegal, Malawi, Zambia, Kenya, and Zimbabwe in 2018. In addition, nearly 6,000 non-R4 farmers have accessed insurance products developed by the R4 initiative, either delivered through non-WFP programmes or by paying their insurance premium fully in cash. This year, the total sum insured amounted to approximately US$10.3 million.

FIGURE 3. R4 achievements by indicator[3]





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

An R4 farmer stands in front of the rain water harvesting system constructed as part of the risk reduction activities of R4 in Tigray, Ethiopia.
WFP/Michael Tewelde

R4 Ethiopia 2018

Since **2009**

29,300 households (143,570 persons)

35 percent women

Tigray and Amhara regions

AIC, DECSI, Ethiopian farmers' cooperative, IRI, ISD, Mekelle University, NMA, Nyala Insurance, ORDA, REST, RIB Union

KfW, Oxfam America, Swiss Re, Margaret A. Cargill Foundation, Norway

Key Achievements

- **Sustainability:** 24,485 farmers paid 20 percent of their insurance premium in cash and 2,794 farmers paid their premium fully in cash.
- **Cash contribution:** US$80,361.

R4 Programme in Ethiopia

In Ethiopia, R4 builds on the initial success of the Horn of Africa risk transfer for adaptation (HARITA) initiative, started in 2009 by Oxfam, the Relief Society of Tigray (REST), and several other national and global partners. The initiative builds its risk reduction component on the government's Productive Safety Net Programme (PSNP).

Risk Reduction component: The risk reduction component builds on the national Productive Safety Net Programme (PSNP)'s public works. The model is focused on a community-based watershed development approach, developed by WFP in collaboration with the Government of Ethiopia during the MERET programme. In order to build long-term resilience, farmers work on soil and water conservation, water harvesting, small scale irrigation, agroforestry and reforestation programmes for a number of selected days on top of the PSNP public works to receive crop insurance coverage. The activity is implemented by the implementing partners.

Risk Transfer component: By building assets, farmers can access weather index insurance. In order to be insured farmers should work on asset between two and seven days, depending on the sum insured participants require, as their contribution to the premium. The cash contribution is collected by the Rural Saving and Credit Cooperatives (RUSACCOs) and REST or the Organization for Rehabilitation and Development in Amhara (ORDA) and then paid to the insurance company branch. In 2018, participants contributed 20 percent on top of the amount of premium received.

Risk Reserves and Prudent Risk Taking components: Farmers practice regular savings in Village Economic and Social Association (VESAs) and RUSACCOs. Under the prudent risk taking component, R4 manages a revolving fund providing loans to farmers who want to invest in their agricultural activities through RUSACCOs. First, participants become members of RUSSACOs to access loans. Subsequently, the local partners REST and ORDA provide trainings to the participants before distributing the loan through RUSACCOs. The participants repay the loan to the RUSACCOs and then it revolves in the village through RUSSACOs.

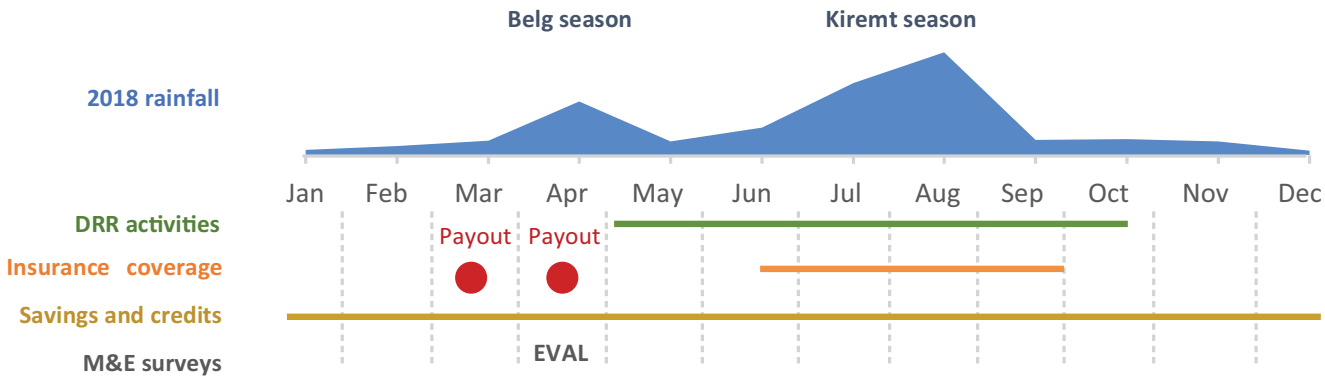
2018/19 Agricultural season: Normal to above average rainfall in R4 intervention areas except for two villages

The 2018 agricultural season, on average, was characterized by a dry beginning and more wetter conditions towards the end of the season. In June, normal to above average rainfall conditions were recorded in the R4 intervention areas. Some heavy rainfall conditions were experienced in most parts of Tigray during the months of June and July. Higher than average rainfall conditions had positive impacts on the agricultural activity in most of the 'Meher' growing areas, resulting in adequate water availability for perennial plants and pasture, as well as for land preparation and human consumption.[4] To inform index design and basis risk[5] minimization in each location, village specific information is required in addition to maps of current conditions. Communities classified 2018 as a year with ample rainfall in the majority of the villages, although few places experienced localized issues. Most of the villages did not receive a payout due to the normal rainfall conditions, except for two villages that received a small payout.

Project Status

In 2018, 29,300 farmers (35 percent women) participated in the R4 initiative in the Amhara and Tigray regions of Ethiopia.

FIGURE 4. Ethiopia 2018 seasonal calendar[6]



4. National Meteorology Agency. 2018. 2017-18 *Bega Seasonal Outlook*. FEWSNET. 2018. *Ethiopia Food Security Outlook*.
5. Basis risk is the potential mismatch between the index triggered payouts and the actual losses suffered by policy holders. It is an inherent problem to index insurance because of the diverse microclimates found within relatively small geographic areas.
6. Payouts disbursed in March in Amhara and in April in Tigray refer to the 2017 planting year. Claims have not yet been settled for the 2018 planting year.

Risk Reduction Component
A total of 24,485 farmers participated in long-term risk reduction activities, including construction of water percolation trenches and micro trenches, seedlings cultivation, composting and gardening activities, as well as installing roof rain water harvesting systems (RWH). RWH systems are helping households to easily access water for micro irrigation, contributing to their micro-gardens and helping them to diversify their nutritional intake, in addition to increasing their incomes or savings and improving the households' hygiene.

Risk Transfer Component
In 2018, a total of 29,300 farmers (35 percent women) were insured in Amhara and Tigray regions of Ethiopia. Of these farmers, 24,485 are being supported by WFP to access insurance, with WFP paying 80 percent of their premium costs. Of the remaining 4,815 farmers, 2,794 are paying for their insurance premium fully in cash and 2,021 are accessing R4's insurance product through other donor-funded programmes.

Following dry spells during the 2017/18 season, a total of 9,856 farmers received insurance payouts totalling US$88,014 in Amhara and Tigray regions. Moreover, this year, two villages in the Raya Azebo and Atsbi districts of Tigray region experienced lower than average rainfall. As a result, the index triggered payouts of approximately US$14 for 541 farmers, totalling US$7,576. A joint field mission and review meeting conducted by WFP, the Relief Society of Tigray (REST) and other R4 stakeholders in October noted there was a high insurance payout expectation from farmers regardless of the rainfall received. Moreover, there were also basis risk complaints due to the mismatch of the satellite and ground realities, and variabilities within villages and individual farms. To address this situation, the project is conducting further analysis to develop zonal indexes in addition to improving seasonal monitoring and consumer education. Indeed, it is possible that participants expect payouts too frequently compared to what the index is designed to cover.

Satellite Index Insurance for Pastoralists in Ethiopia (SIIPE)
WFP also began offering insurance to pastoralists in 2018 through the Satellite Index Insurance for Pastoralists in Ethiopia (SIIPE). This year, a total of 5,001 farmers have registered for the index-based livestock insurance in the Somali region of Ethiopia. Similar to R4, SIIPE is targeting PSNP households who own between five and eleven Tropical Livestock Units.[7] Pastoralists can access insurance by investing their time in building assets.

INSURANCE PERFORMANCE INDICATORS

- **Growth ratio:** 8.2 percent decrease from 2017 to 2018.
- **Consumer protection investment ratio:** 13.6 percent.
- **Promptness of claims settlement:** Claims have not yet been settled for the 2018 planting year.

Risk Reserves and Prudent Risk Taking Components
R4 farmers are practicing regular savings in both Village Economic and Social Associations (VESAs) and Rural Saving and Credit Cooperatives (RUSACCOs).

In Tigray, 4,400 farmers (38 percent women) participated in 186 VESAs and saved US$24,146 and a total of US$25,813 from RUSACCOs. Moreover, 465 farmers accessed loans worth US$7,371 with a repaid loan amount of US$2,902.

In Amhara, 3,926 farmers (34 percent women) grouped in 213 saving groups, achieved a cumulative savings of US$14,274 and a total of US$670 savings through RUSACCOs. 3,134 farmers accessed loans worth US$27,519 with a repaid loan amount of US$15,285.

R4 farmers engaged in several income generating activities (IGAs), such as shoat rearing, fattening, and poultry production activities. The field mission and review meeting indicated a proper utilization of loans from farmers. Households who took out loans witnessed improvements in their livelihoods in terms of income, supplementary nutritious food sources from their own gardening and asset holdings.

7. Tropical Livestock Units are livestock numbers converted to a common unit.

Key programme findings

The results of the impact evaluation published in 2018[8] covering the implementation of R4 in Amhara Region from 2012 to 2017, indicated clear progress toward R4 objectives in the following main components:

1. Improvement in household agriculture production and consumption levels

- The programme has demonstrated good results in reducing the adverse impact of shocks on the food security of programme participant households. A comparison of the Food Consumption Score (FCS) and Coping Strategy Index (CSI) of participants with non-participants revealed that participants coped better with the different challenges that they faced.
- The findings also indicated that the programme enabled participants to cope better with the shock, as programme participants experienced a higher improvement on their CSI compared to non-participants.

2. Income, investment, and assets are increased among targeted households

- Compared to non-participants, programme participants' income, livestock assets and engagement in income generating activities (IGAs) and other livelihood options showed better progress of trend.
- The programme demonstrated substantial progress in strengthening institutional capacity of local stakeholders and communities in disaster risk reduction, natural resource management, and IGAs. Participants' selection and the programme's limited area and time coverage challenged the impact of the programme compared to its anticipated level.
- The programme increased participants and non-participant's knowledge and desire to engage in weather index insurance. 83 percent of respondents from programme participants and 65 percent from non-participants believe in the importance of weather index insurance. Focused Group Discussions (FGDs) confirmed that both R4 participants and non-participants showed demand for the insurance product. Particularly, respondents believe that weather index insurance protects the depletion of assets.

Outlook for 2019 and beyond

In 2019, R4 in Ethiopia is expected to scale up to 35,000 households in Amhara and Tigray regions. The initiative is planning to reach 180,000 households and expand its intervention to the Oromia region and to the Southern Nations, Nationalities and People's Region (SNNRP) by 2021 as a result of the support received from KfW. In addition, R4 in Ethiopia is planning to conduct targeting, graduation and credit, saving strategies. Moreover, the initiative is planning to hire four field monitors, two Disaster Risk Reduction officers, a saving and credit officer and a livelihood officer.

8. Oxfam America. 2018. *R4 Rural Resilience Program Evaluation in Amhara Regional State of Ethiopia*. Impact Evaluation Report.

An R4 farmer watering a community vegetable garden in Senegal.
WFP/Carla De Gregorio

R4 Senegal 2018

Since **2012**

9,245 households (80,432 persons)

48 percent women

Kolda and Tambacounda

ANCAR, ANACIM, BAMTAARE, Caritas Kolda, CEERAS, CNAAS, IFAD, INP, La Lumière, PlaNet Guarantee, PASA, PAPIL, Swiss Re, SEN RE, U-IMCEC

GCF, Oxfam America, France, USAID, Norway, Rockefeller Foundation, Swiss-Re, Cargill Foundation

Key Achievements

- **Scale up:** The number of insured farmers increased from 6,739 in 2017 to 9,245 in 2018.
- **Sustainability:** 844 farmers paid their premium fully in cash with total cash contributions amounting to US$28,147.
- **Cumulative value of savings:** US$317,000.

R4 Programme in Senegal

In Senegal, R4 builds on WFP's FFA and Oxfam America's Saving for Change (SfC) programmes. The initiative is also linked to IFAD-funded program Projet d'Appui au Développement Agricole et à l'Entrepreneuriat Rural (PADAER), an agricultural development initiative providing farmers with agricultural inputs as well as insurance through WFP.

Risk Reduction component: By participating in WFP's FFA programme, farmers build assets that decrease their vulnerability to climate shocks over time.

Risk Transfer component: Farmers access weather index insurance by investing their time in building assets. As their contribution to the insurance premium, farmers have to work 10 days in building productive assets. When a drought hits, compensation for weather-related losses prevents farmers from selling assets and stimulates faster recovery.

Risk Reserves and Prudent Risk Taking components: Insurance policies are delivered through SfC Associations, which support participants in establishing small-scale savings, used to build 'risk reserves'. Savings help build a stronger financial base for investing – but also act as a buffer against short-term needs and idiosyncratic shocks, such as illness and death and could be used to pay insurance premiums in cash. Saving and microcredit also enable investment on livelihoods, increasing household production and income, gradually allowing them to access insurance commercially and contributing to the general sustainability of the initiative.

2018/19 Agricultural season: normal to above average rainfall conditions in all locations except dry spells in Kolda

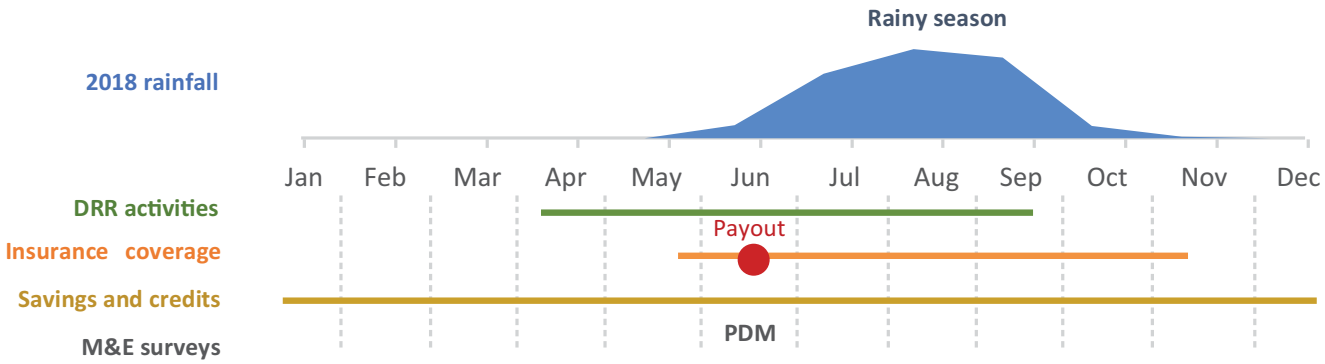
Overall, the 2018 rains in Senegal were moderate despite long dry spells towards the end of July and in August. All locations received normal to above average rainfall during the second window.[9]

In 2018, Tambacounda experienced a rather normal season characterized by an average start, some dry spells end of July and in August, and average to above average rainfall in September and October, except in three locations where conditions were not as good. In Kolda, the agricultural season was characterized by major dry spells and poor rains, triggering insurance payouts.

Project Status

This year marked the sixth year of implementation of R4 in Senegal. In 2018, a total of 9,245 farmers (48 percent women) were covered by insurance in Tambacounda and Kolda.

FIGURE 5. Senegal 2018 seasonal calendar[10]



9. The term 'window' here refers to critical periods within a growing season that the index targets. An early window coverage targets severely late onset of rainfall or significant dry spells for long cycle crops that occur after sowing, while a late window coverage targets severely early end of rainfall or significant dry spells in the late season that affects flowering and grain filling for all crops.
10. Payouts disbursed in June refer to the 2017 planting year. Claims have not yet been settled for the 2018 planting year.

Risk Reduction Component
FFA activities were undertaken and completed by 9,887 farmers (34 percent women) for both the dry and rainy season. The number of participants has increased by 60 percent compared to 2017 in the two regions. Main activities implemented included vegetable garden cultivation and nurseries development. These activities improve access to nutritious food for farmers, allowing households to enrich their basic diet.

Risk Transfer Component
Between 2017 and 2018, the number of insured farmers under R4 increased from 6,739 to 9,245. Furthermore, the number of farmers contributing to their premium in cash continued to increase. In 2018, 844 farmers (46 percent women) paid their premium fully in cash, a 19 percent increase compared to last year. Moreover, a total of 6,220 farmers (44 percent women) paid 15 percent of their premium in cash, and 2,181 farmers (57 percent women) paid 10 percent of their premium in cash. Farmers contributing a percentage of the premium in cash are required to work fewer days to receive insurance policies, proportionate to the amount of their cash contribution.

In Senegal, the insurance component is offered in the Northeastern region of Tambacounda based on a satellite index and in the South-Eastern region of Kolda through a rain gauge index. The 2018 Senegal satellite indexes, similar to the 2016 and 2017 indexes, focused on two drought perils, namely (i) severely late onset of rainfall or significant dry spells for long cycle crops after sowing and (ii) severely early end of rainfall or significant dry spells late in the season for all crops.

In June, following dry spells during the 2017/18 agricultural season, a total of 5,279 farmers received insurance payouts totalling US$264,145, with an average payout per farmer of US$34. Moreover, in 2018 the index triggered payouts of US$2,197 for 111 farmers in Kolda. The sum insured has increased by 37 percent compared to 2017, totalling US$2,404,465.

INSURANCE PERFORMANCE INDICATORS

- **Growth ratio:** 37 percent from 2017 to 2018.
- **Consumer protection investment ratio:** 27 percent indicates that more than a quarter of insurance budget is dedicated to improving financial capacity and understanding of farmers.
- **Promptness of claims settlement:** Claims have not yet been settled for the 2018 planting year.

A Beneficiary Contact Monitoring survey was conducted in June to assess the payout distribution process and level of satisfaction among farmers using WFP's Mobile Vulnerability Assessment and Mapping (mVAM).[11] A total of 170 households were interviewed two weeks after the insurance payout. A majority of respondents were overall satisfied with the R4 initiative and participants expressed their interest in continuing to participate and a willingness to pay 100 percent of the premium, currently amounting to US$18. Households mainly spent their money on food, agricultural inputs, school fees and medical expenses.

The payout has helped farmers ensure basic social needs, avoiding the deterioration of households' food security and limiting the loss of livelihoods through the purchase of agricultural inputs. In addition, some of the payment has been saved to meet future needs. The survey also suggested some points for improvement, including the need to raise awareness amongst participants about the reasons behind the payout, the accountability system as well as the procedures to request information and file complaints. Suggestions were also made on the need for a faster disbursement of the payout and the need to reduce travelling time, limiting the risks faced by some participants while accessing payouts.

Risk Reserves and Prudent Risk Taking Components
Under the savings and credit components, 665 saving groups are currently active across the two regions. In 2018, a total of 14,846 farmers (80 percent women) farmers saved US$317,000 and 10,226 farmers accessed loans worth US$192,000.

Key programme findings

The report from the 2017 outcome monitoring survey provided insightful information on the evolution of R4 participants in Kolda and Tambacounda. Some of the key findings from the survey are reported below:

Food security: The overall food security situation has improved compared to 2016 due to the good harvest experienced in 2017, with the number of households presenting a poor food consumption score decreasing from 34 percent in 2016 to only 14 percent in 2017.

Agricultural production: Millet, maize, sorghum and groundnuts are the main crops produced by households in the areas of intervention. Men are slightly more inclined to produce cash

11. WFP's Mobile Vulnerability Assessment and Mapping (mVAM) is a system that collects data remotely through mobile phone interviews.

crops than women (67 percent vs. 63 percent). However, vegetable production is led by women (21 percent vs. 3,6 percent). At the time of the survey, R4 participants had higher food stocks than non-participants, ensuring their food security for almost four months while non-participants can cover only three months of consumption.

Socio-economic situation: The saving capacity of R4 participants is three times higher than non-beneficiaries (US$445 vs. US$156) and is invested by 37 percent of participants on income generating activities. With respect to credit, 39 percent of R4 participants accessed loans for an average amount of US$270 and invested 40 percent of this amount on income generating activities. The survey also analysed the socioeconomic situation of R4 participants that are no-longer supported by the programme, revealing that their income diversity, saving capacity and access to credit are maintained and remain higher than the control group one year after their participation in the programme.

Outlook for 2019 and beyond

The Green Climate Fund (GCF) will support the expansion of R4 in five regions, including Kaffrine, Kolda, Tambacounda, Fatick, Kaolack, with the plan to reach 45,000 households from 2019 to 2023. Key objectives of the initiative for next year include a complete handover to the local partners for the insurance component, as well as the graduation of participants.

Farmers take part in a sensitization activity to increase their knowledge and interest in insurance in Mangochi, Malawi.
WFP/Jyothi Bylappa

R4 Malawi 2018

Since **2015**

36,969 households (207,026 persons)

65 percent women

Southern Region

CUMO, DoDMA, DCCMS, FISD, Hannover Re, Insurance Association of Malawi, MoA, MoFEP&D, UP, World Vision Malawi

SDC, DFID, FICA

Key Achievements

- **Scale up:** From 10,327 farmers insured in 2017 to 36,969 in 2018.
- **Expansion:** The programme expanded from three to six districts (Balaka, Zomba, Blantyre, Mangochi, Chikwawa, and Nsanje).
- **Sustainability:** 3,327 farmers paid 14 percent of their premium in cash.
- **Cumulative value of savings:** US$500,710.

R4 Programme in Malawi

In Malawi, R4 is part of the Country Office's integrated resilience building portfolio, which also includes on-going activities by the Global Framework for Climate Services (GFCS) and WFP's FFA. The integrated approach also includes market access support and climate information services for participating farmers.

Risk Reduction component: By participating in WFP's FFA programme, farmers build assets such as soil and water conservation structures in addition to applying conservation agriculture techniques.

Risk Transfer component: Farmers access weather index insurance by investing their time in building homestead assets to improve their productivity. Cash contribution has been introduced only in Balaka and will be introduced in Zomba and Blantyre next season. Farmers work for an average of 14 days on this component.

Risk Reserves and Prudent Risk Taking component: Savings are promoted through Village Saving and Loans (VSL) groups to act as a buffer for smaller, individual shocks, and to fund investments in diversified and more resilient livelihoods.

Credit is promoted through microfinance institutions to support farmers in making larger investments in their livelihoods, for prudent risk taking.

2017/18 Agricultural season: Poor rainfall performance triggered payouts in all locations

The 2017/18 season was characterized by an overall poor rainfall performance. While southern Malawi experienced normal to above average rainfall in November and December 2017, some villages experienced slight deficits in November and a persistent dry spell was recorded in December.[12] This situation was worsened by the rainfall deficits in January, resulting in below-average 2018 main and winter harvests in southern Malawi.

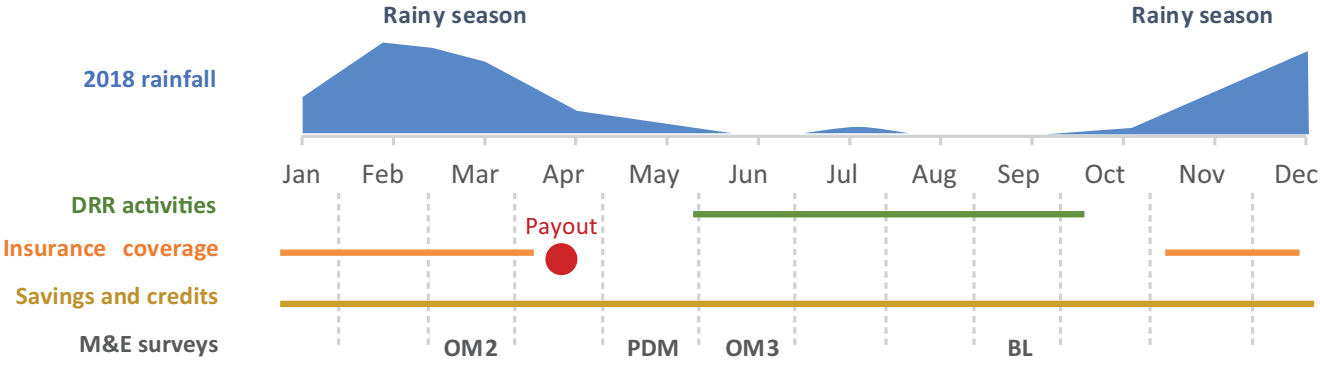
In 2018, crop production estimates released by the Ministry of Agriculture, Irrigation and Water Development in September indicated that the production of maize, rice, and sorghum was 17, 2, and 61 percent below the five-year average, respectively. These major cereal crops typically contribute to about 75 percent of rural households' annual food requirement. Very poor and poor households in the worst-affected areas were increasingly reliant on market purchases due to household production deficits, and September marked an atypically early beginning of the lean season in southern Malawi.

This climatic situation affected farmers in the areas of intervention, with the index triggering large payouts in Zomba and Blantyre, whereas in Balaka, the recorded rainfall was not as catastrophic, and triggered a smaller payout.

Project Status

R4 in Malawi scaled up considerably from 10,327 to 36,969 farmers (65 percent women) for the 2018/19 season. The initiative expanded to three new districts, namely, Mangochi, Chikwawa, and Nsanje, in addition to Balaka, Zomba, and Blantyre.

FIGURE 6. Malawi 2018 seasonal calendar[13]



12. FEWSNET. 2018. *Stressed and crisis outcomes projected in central and southern Malawi.*
13. Payouts disbursed in April refer to the 2017 planting year.

Risk Reduction Component

Of the targeted 39,297 participants, a total of 36,969 farmers (65 percent women) fulfilled the asset creation conditionality. As part of the risk reduction component, farmers were mainly involved in seed multiplication for drought-tolerant crops, including cassava and sweet potatoes. These two crops are used to diversify the income of R4 farmers to mitigate the impact of dry spells by ensuring food security, while also providing new value chains and market options. Going forward, the activities will provide options for generating additional income among participating households, enabling them to diversify their livelihoods and effectively start contributing to the premium. As part of the risk reduction activities, farmers also engaged in constructing individual trenches and community roads, lining of shallow wells, and planting of tree seedlings.

Climate services activities were also carried out as part of the risk reduction component. Agricultural extension officers and other stakeholders disseminated agro-climatic messages based on the downscaled seasonal forecast from the Department of Climate Change and Meteorological Services (DCCMS) to farmers in Mangochi, Nsanje and Chikwawa districts. This information is meant to guide farming decisions for the 2018/2019 agriculture season.

Risk Transfer Component

In 2018, the number of farmers insured under R4 significantly increased from 10,327 to 36,969 (65 percent women). The index design process was finalised during the last quarter of 2018, moving away from the pixel to zonal approach. This shift allowed multiple villages with similar weather and climate features to be grouped under a single index, rather than having multiple pixel level indexes. The approach has eased administrative burden including communication to participants on the technical parameters of the index.

INSURANCE PERFORMANCE INDICATORS

- **Growth ratio:** 258 percent from 2017/18 to 2018/19; High growth ratios are to be expected as the project is in its expansionary stage. This must be supplemented with robust tools and systems (e.g. registration, data systems), to ensure sustainability of this expansion.
- **Consumer protection investment ratio:** 26 percent for the 2017/18 season; The ratio is quite healthy given the expansionary stage of the project, demonstrating a strong focus on consumer protection.
- **Promptness of claims settlement:** 45 days for the 2017/18 season; Well within the ideal limit of two months from policy closure.

In Balaka district, cash contribution was introduced for the second year and 3,327 farmers contributed 14.3 percent of their premium in cash, US$2.7 (MK1,930) each. The level of contributions will continue to increase over the next seasons, enabling farmers to eventually transition to paying their premium fully in cash.

Across the different districts, the total sum insured in 2018/19 amounted to US$3,806,479 with a total premium amount of US$685,105.

The 2017/18 agricultural season was severely affected by prolonged dry spells in January, triggering payouts totalling US$404,599, the largest amount to date. A total of 7,347 farmers received an average of US$55 in insurance payouts during April.

A beneficiary contact survey conducted one month after payouts were received showed that it was split equally between food and non-food expenditures, with more than 90 percent of households using the payout to purchase food. The most important non-food expenditures were allocated to credit repayment, education, agricultural inputs and livestock. Thus, the insurance payout can be considered useful for purchasing food, limiting the degradation of household food security after a failed agricultural campaign, as well as limiting the erosion of livelihoods through the purchase of livestock and agricultural inputs. In terms of product perception, as the amount of payout received was different in the three districts of intervention (ranging from US$3.9 to US$68.7), different perceptions on the insurance product were reported that aligned with the amount received. While households in Blantyre and Zomba who received the highest amounts were for the most part satisfied with the insurance product, the ones in Balaka have a largely negative perception. This result revealed that additional efforts need to be done to harmonize and convey adequate information on the insurance product and the amount of payout to be received, avoiding false expectations for participants.

This year was also characterized by a strong effort to foster integration with WFP's Smallholder Agricultural Market Support (SAMS),[14] aiming to support farmers in gradually shifting to commercial activities and building resilience to climate shocks. To this end, 104 surplus producing farmers in Zomba contributed 50 percent of the insurance premium in cash during insurance sign-ups in December. WFP contributed the remaining 50 percent, and farmers are expected to meet 100 percent of the premium in the subsequent years if their harvests for the 2018/19 season are sufficient. The coordination between SAMS and R4 is expected to provide lessons learnt on integration and graduation for WFP's resilience interventions.

Risk Reserves and Prudent Risk Taking Components
The savings component continued to achieve considerable progress throughout 2018, significantly growing and expanding to the new districts. In all R4 districts, 22,000 farmers (77 percent women) in 846 saving groups saved a total of US$500,710, with farmers approximately saving US$23 each. Moreover, a total of 15,294 farmers accessed loans totalling US$109,172.

In 2018, the two microfinance institutions (MFIs) that are partnered with WFP, CUMO Microfinance and FISD Fund, continued supporting R4 activities to facilitate savings and credit, conducting training sessions for participants on leadership, business and financial management. During the last quarter of 2018, some VSL groups started sharing out and utilizing proceeds from their shares to buy inputs for the 2018/19 agricultural season.

The demand for formal microfinance loans has steadily grown among participating households. The cooperating partners in the districts conducted a mapping exercise during the last quarter of 2018 to better understand the eligibility of VSL participants for credit and matching the demand with available loan products within the product portfolio of the MFIs.

Key programme findings

In September 2018, the R4 programme monitoring system conducted a baseline for the new expansion areas. In addition, the evolution of participants having joined the programme in 2017 was monitored through quarterly outcome surveys since September 2017, giving a picture of the potential effects of the programme over the year. Preliminary results show that, compared to the control group, R4 participants have better addressed the lean season (December 2017 to March 2018) with a high percentage of food secure households (60 percent vs. 37 percent) that did not need to resort to any type of coping strategy (45 percent vs. 28 percent).

The main programmatic findings from the beneficiary contact monitoring survey completed after the payout disbursement showed the need, despite efforts already made, to improve communication with participants regarding the reasons behind receiving different payouts amounts as well as reflect on the possibilities during product design to determine a minimal amount of payout to be disbursed. This will be even more challenging as the portfolio quickly scales up.

Outlook for 2019 and beyond

In 2019, The Swiss Agency for Development and Cooperation (SDC) and the Government of Flanders will support the continuation of activities in four of the six districts (Balaka, Zomba, Mangochi, Chikwawa). As part of the scale up strategy, R4 in Malawi planned to reach 45,000 households in 2019. However, a funding shortfall is expected from July to December 2019 for Blantyre and Nsanje, which will hinder the expansion. New funding from the Department for International Development (DFID) will allow implementation of R4 in the district of Phalombe. Key objectives of R4 next year include continuation of fostering linkages with WFP's SAMS and working towards national ownership and handover of the insurance product. The initiative aims to reach 50,000 households by 2023.

14. Smallholder Agricultural Market Support (SAMS) is WFP's flagship program connecting smallholder farmers to markets.

Rain gauge operator explaining the rainfall reading in Zambia.
WFP/Crissy Mupuchi

R4 Zambia 2018

Since **2015**

7,821 households (53,965 persons)

48 percent women

Southern Region

DAPP, DMMU, FAO, Hannover Re, Mayfair insurance, Vision Fund Zambia, ZMD

SDC, KOICA

Key Achievements

- **Scale up:** The programme doubled the number of participants from 3,835 in 2017 to 7,821 farmers in 2018.
- **Expansion:** The programme expanded within the Southern Province from one to five districts (Pemba, Gwembe, Namwala, Monze, and Mazabuka).
- **Sustainability:** 3,835 farmers paid 15 percent of their premium in cash.
- **Cumulative value of savings:** US$74,443.

R4 Programme in Zambia

In Zambia, R4 builds on FAO's Conservation Agriculture Scaling-Up (CASU) Project, whereby farmers access insurance by applying conservation agriculture (CA) techniques. The integrated risk management approach is based on four components:

Risk Reduction component: In Zambia, farmers apply CA techniques such as minimal soil disturbance, permanent soil cover and crop rotations. Farmers also receive tailored weather and climate information services to help them better cope with increasing climate variability and adapt their decision-making and farming practices.

Risk Transfer component: Farmers are insured by applying CA techniques on at least 1 hectare of land.

Risk Reserves and Prudent Risk Taking component: Farmers participate in SfC model developed by Oxfam America. Farmers also have access to input loans to support their application of CA. 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 programme. R4 farmers are selling their cowpeas to WFP's Smallholder Agricultural Market Support platforms at market prices. This secures the income needed to meet consumption needs and contributes to the repayment of input loans. Lastly, under the Virtual Farmers' Market (VFM), a total of 90 R4 farmers became 'ambassadors' and were trained to use an android app-based e-commerce platform where farmer's supply and buyer's demand for crops is facilitated by WFP.

2017/18 Agricultural season: Risk of serious crop losses due to rain shortage

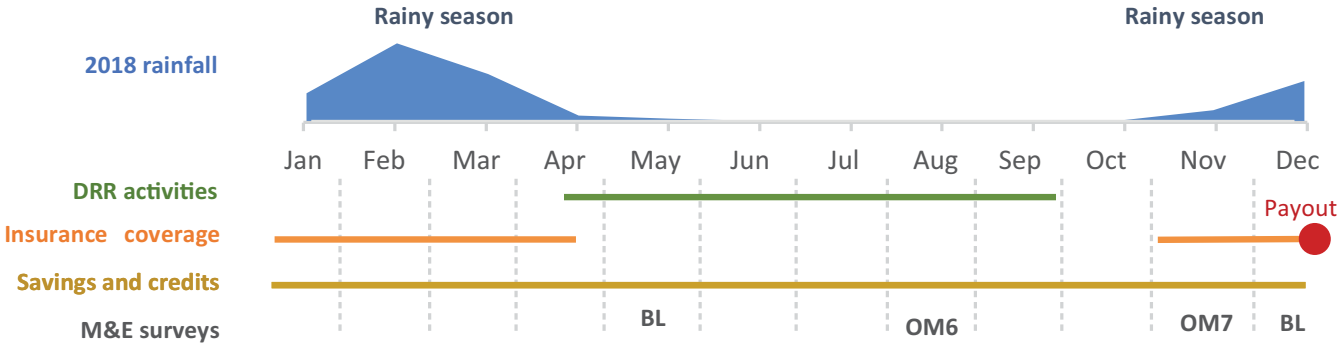
The 2017/18 agricultural season in Zambia was characterized by prolonged dry spells and late onset of rains, negatively impacting agricultural production. Additionally, lash flooding in some southern districts in Zambia led to widespread leaching[15] and loss of crop nutrients.[16] These factors contributed to reduced crop production in the main districts in Zambia. Particularly, maize production was negatively affected by the dry spells and national maize production decreased by 34 percent while small grains also registered a decline in production.

The prolonged dry spell affected mostly the southern part of Zambia where rainfall performance was below normal. About 28 districts had prolonged dry spells of between 31 and 40 days mostly in the Central, Eastern, Lusaka, Southern and Western provinces. In addition to the dry spells, Fall Army Worm and stalk borer[17] outbreaks also impacted crop production.

Project Status

In Zambia, R4 is implemented in five districts of the Southern Province. The integrated approach scaled up to four additional districts in the Province, including Gwembe, Namwala, Monze, and Mazabuka, in addition to the existing operations in Pemba district.

FIGURE 7. Zambia 2018 seasonal calendar[18]



15. Leaching in agriculture refers to the loss of water-soluble plant nutrients from the soil.
16. Integrated Food Security Phase Classification (IPC). 2018. *In-depth vulnerability and needs assessment report.*
17. The stalk bore is an insect belonging to the Noctuidae family of moths, including the cutworms and Army worm.
18. Payouts disbursed in December refer to the 2017 planting year.

Risk Reduction Component

In 2018, 7,821 farmers applied CA as part of the risk reduction component of R4. Compared to 2017, the number of farmers who applied CA more than doubled in 2018. During the year, farmers planted cowpeas, beans, sweet potatoes, and soy beans and were trained on CA, land preparation techniques, nutrient application, seeding and herbicides handling and usage. Climate information services are also provided as part of the risk reduction component. In 2018, 48 rain gauge minders were trained on recording, disseminating, and interpreting climate information.

Risk Transfer Component

Based on the fulfilment of CA application conditionality, all 7,821 farmers (48 percent women) who participated in the risk reduction component were insured for the 2018/19 season. This year also saw an increase in the number of farmers paying a percentage of their premium in cash, with 3,835 farmers (49 percent women) paying US$3 (15 percent) of their premium for a total of US$11,505.

INSURANCE PERFORMANCE INDICATORS

- **Growth ratio:** 104 percent from 2017/18 to 2018/19; High growth ratios are to be expected as the project is in its expansionary stage. This must be supplemented with robust tools and systems (e.g. registration, data systems), to ensure sustainability of the expansion.
- **Consumer protection investment ratio:** 13 percent for the 2017/18 season; Given the expansionary stage of an initiative with strong focus on consumer protection, this ratio is acceptable.
- **Promptness of claims settlement:** 269 days after insurance coverage closure; this is a major outlier as it significantly exceeds the recommended timeline of two months after policy closure. The delay was a result of several factors, including activation of Basis Risk Strategy, administrative and legal processes to channel basis risk payments, and lack of an efficient claims settlement mechanism already in place. These will be critical to address in the upcoming seasons to prevent recurrence of such delays.

Nearly full payouts amounting to US$132,025 were triggered in 2 pixels during Window I, in accordance with the extensive dry spell of January as recorded by both satellite and rain gauges. Though the dry spell of January was recorded by the satellite in remaining pixels, the first window was placed from December 11 to January 10 in consultation with farmers, national experts and partners in the aftermath of the 2015/16 season. As such, due to the design of the first window, this extensive dry spell of January (starting January 2-5) was not captured by the index in its entirety. Also, due to above-average rainfall conditions in the second window, no payouts were triggered. Since all locations targeted under R4 suffered similar damage on the ground, main stakeholders of the projects collectively decided that all participants would receive a payout to mitigate the basis risk situation. According to the Zambia Basis Risk strategy and in agreement with the insurance company and other partners, a basis risk contribution of US$43,000 was released so that all the 3,835 insured farmers could receive a compensation of approximately US$46.

As per the basis risk strategy, it was also agreed that the International Research Institute for Climate and Society (IRI) would refine the index for the 2018/19 season based on the recent experience by introducing: (i) overlapping windows to avoid missing payouts during important drought years, allowing coverage of the whole growing season and no longer missing any key dry spell during an uncovered window; and (ii) a zonal approach to limit the variability of prices and payout between neighbouring villages, easing efforts to scale up. In addition to this, it was agreed that the risk takers would assume additional responsibility during the index design phase as well as for any eventual high basis risk situations, as no further financial support would be provided by WFP from the project in such cases for sustainability purposes.

Risk Reserves and Prudent Risk Taking Components

In 2018, 3,308 farmers (64 percent women) participated in 174 saving groups, resulting in a cumulative savings of US$74,443, with farmers saving US$23 on average. Of the total participants, 1,765 farmers (55 percent women) took out loans totaling US$89,744 with a repaid loan amount of US$75,765.

In 2018, 60 producer groups were trained on Oxfam's SfC methodology, with a total of 1,600 participants (60 percent women) in Mazabuka and Gwembe. During the 2017/18 agricultural season, 215 farmers accessed input credit worth US$25,800 in Monze, Namwala, Gwembe, and Mazubuka.

Market linkages have been enhanced through WFP's innovative Maano Virtual Farmers Market (VFM).[19] Following the pilot of VFM in 2017, a total of 89.9 MT of produce, including cowpeas (18.2 MT), soya beans (68.9 MT), and groundnuts (2.8 MT) were successfully aggregated. Moreover, 21 pre-harvest contracts were signed for soya beans, cowpeas, and groundnuts for the 2017/18 marketing season in the five districts of Monze, Namwala, Mazubuka, Gwembe, and Pemba. A total of 90 farmers were trained as ambassadors to involve other farmers looking for possible buyers for their farm produce.

Throughout 2018, R4 participants attended several trainings on CA land preparation techniques, weather index insurance, SfC methodology, financial education, climate and weather recording, post-harvest loss management and market access. These trainings are aimed at enhancing farmers' knowledge and building their capacity on the different initiative's components.

Key programme findings

A baseline was conducted in May 2018 across the expansion areas, including Monze, Namwala, Mazabuka and Gwemba. The survey provided a complete profile of R4 participants and a control group that presented similar characteristics of livelihood and resilience capacities to serve as reference to analyse the effects of the programme in these new geographical areas.

In addition, the programme conducted an outcome monitoring survey in August assessing the food security and socioeconomic situation of R4 participants that were enrolled into the programme in 2015 in the pilot camp of Kanchomba in Pemba district. Subsequently, in 2016 the programme expanded within Pemba to Muzoka, Ndondi, Kasiliki and Kasiya camps, and finally to Bulanda and Demu camps in 2017. The key findings are reported below:

Food security: The results showed an overall deterioration of the number of households having an acceptable FCS, that may be attributed to the poor weather conditions, including dry spells and floods, experienced in the 2017/2018 farming season. However, diet diversity and the use of consumption coping strategies were maintained or slightly improved over the period.

Socio-economic situation: Saving is practiced by all participants, with a preference through formal bank institutions (80 percent of the respondents). Households from the pilot camp accessing loans have gradually increased, reaching 100 percent in 2018. In addition, the capacity to repay loans also increased compared to the previous year. Only 6 percent of farmers had outstanding loans in 2018 compared to 28 percent in 2017. Finally, there was a gradual increase in the household assets score observed in all camps, with the biggest increase detected in the pilot camp, implying that households are becoming better off and are not using negative coping strategies, such as selling productive assets or livestock.

Following the different information collected, the report concludes that access to services such as markets and financial services are vital for strengthening farmers' coping capabilities to deal with shocks and subsequently improve their food security status.

Outlook for 2019 and beyond

The Swiss Agency for Development and Cooperation (SDC) and the Korea International Cooperation Agency (KOICA) will support the expansion of R4 in the country, aiming to reach more than 17,000 households by 2021 in five districts in Zambia's Southern Province including Pemba, Gwembe, Namwala, Monze, and Mazabuka. Moreover, contributions from the GCF will allow the implementation of a joint project aimed at strengthening the climate resilience of smallholder farmers in two agro-ecological regions in Zambia, covering 16 districts in the Southern, Central and Eastern Provinces. WFP has been assigned a responsible entity role to provide technical assistance to the Government of Zambia to manage post production activities, including aggregation, credit and insurance, and market access, among others, targeting 100,000 smallholders.

19. Virtual Farmers' Market (VFM) is an app-based e-commerce platform where farmers' surplus and buyers' demand for crops are advertised and traded. VFM builds on P4P.

R4 participants are signing up for insurance policies in Kitui Rural, Kenya.
WFP/Jyothi Bylappa

R4 Kenya 2018

Since **2017**

9,485 households (63,550 persons)

82 percent women

Kitui County

MoALF&I, NDMA, County Government of Kitui, Kenya Agriculture and Livestock Insurance Pool, Catholic Diocese of Kitui, Pula Advisors

CIDA

Key Achievements

- **Scale up:** The programme doubled the number of participants from 4,752 to 9,485 in one year.
- **Insurance payout:** All 4,752 farmers insured for the 2017 short rains season received payouts totalling US$585,657.

R4 Programme in Kenya

In Kenya, the initiative is implemented through the collaboration of WFP with the Ministry of Agriculture, Livestock, Fisheries, and Irrigation (MoALF&I), the National Drought Management Authority (NDMA), County Government of Kitui, Catholic Diocese of Kitui, and private sector partners. The integrated climate risk management approach is based on two components:

Risk Reduction component: Through the FFA programme, farmers receive food or cash assistance while working on asset creation and rehabilitation activities such as improving water and soil retention. Assets built promote resilience by steadily reducing farmers' vulnerability to shocks over time.

Risk Transfer component: By building assets, farmers can access area yield index insurance (AYII). AYII can offer coverage against several risks including pests and uses crop sampling at the end of season to determine the value of losses. In order to be insured, farmers should at least grow one drought resistant crop, including green grams, sorghum, millet and cow peas, as well as work six extra days in building productive assets as their contribution towards 50 percent of their insurance premium. The MoALF&I contributes the remaining 50 percent of the premium. When a major shock affecting the community hits, compensation for losses prevents farmers from selling productive assets and stimulates faster recovery.

2017/18 Agricultural season: Poor 2017 short rains season led to low crop production in Kitui county

The 2017 short rains season started on time in Kitui in mid-October, however spatial distribution was uneven with most of the county receiving 75-90 percent of normal rains, and eastern and south western Kitui East and north western Kitui South receiving amounts that were 25-50 percent lower than normal rains. In addition, temporal distribution was poor, and the end of the short rains season came early in mid-December when in normal years rains continue until mid-January. The performance of the rains was adequate for pasture regeneration, however, this was not enough for most of the crops grown in the county.

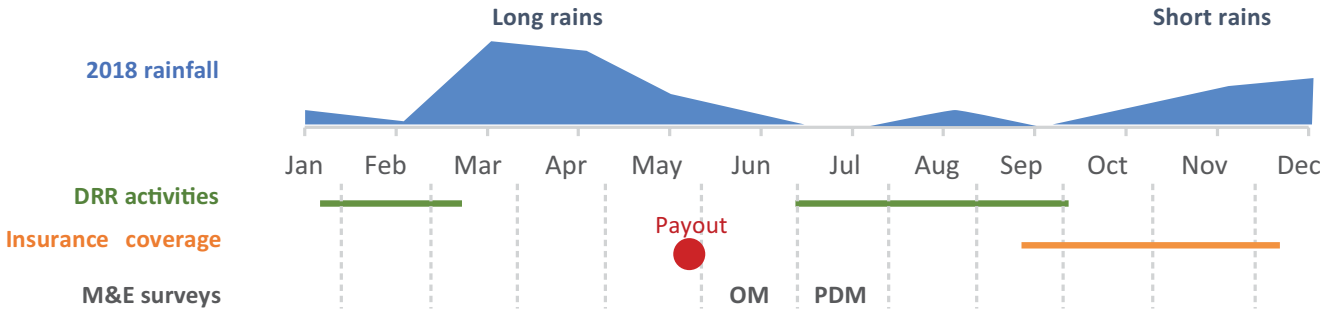
Green gram production was 39 lower than the Long Term Average (LTA) yield, while cowpeas production was 21 percent lower than the LTA. Due to a total crop failure, maize production was the most affected at three percent of LTA. The decline in production for all the major crops was caused by the poor performance of the rains, as the end of the short rains season was much earlier than normal.[20]

In contrast, 2018 started with an above average long rains season that contributed to an improved food security situation all over the country. Crop production of maize in Kitui was above average and cowpeas and green grams recorded production 110 percent higher than LTA due to an increase in acreage driven by favourable rainfall and county government-led initiatives in partnership with WFP to provide certified seeds and increase access to insurance for vulnerable households.[21]

Project Status

In 2018, the R4 initiative in Kenya scaled up its coverage to Mwingi North and consolidated its presence in Kitui Rural, Kitui South and Kitui East.

FIGURE 8. Kenya 2018 seasonal calendar[22]



20. Kenya Food Security Steering Group and Kitui Steering Group. 2018. *Kitui County 2017 Short Rains Food Security Assessment Report.*
21. FEWSNET. 2018. *Food security improvements driven by above-average long rains and low staple food prices.*
22. Payouts disbursed in May refer to the 2017 short rains season.

Risk Reduction Component
Between July and September 2018, a total of 10,235 participants were engaged in risk reduction activities, including excavation of zai pits, terraces, farm ponds and manuring in preparation for the short rains. Farmers also participated in community mobilization and sensitization meetings related to area yield insurance coverage, good agricultural practices, and land preparation for the short rains.

Risk Transfer Component
The number of insured farmers for the 2018 short rains season doubled from 2017, with a total of 9,485 farmers (82 percent women) insured.

The insurance product offered to R4 farmers in Kenya is an Area Yield Index Insurance. Payouts are based on the realized average yield of an area such as a county, a district or even a village, not the actual yield of the insured farmer. The insured yield is established as a percentage of the historical average yield for the area. A payout is triggered if the realized yield for the area is less than the insured yield regardless of the actual yield on the insured's farm. A credible and consistent yield time series at the selected level of aggregation is required to design such an index insurance product.

Poor rainfall during the 2017 short rains season triggered insurance payouts amounting to US$585,675 for 4,752 farmers (85 percent women). Approximately 3,158 farmers received a payout of US$125 in Kitui East and South and 1,594 received a payout of US$119 in Kitui Rural. The total sum insured in 2018 amounted to US$1,127,489, with a total premium amount of US$211,968, with both figures having increased by 36 percent compared to last year.

INSURANCE PERFORMANCE INDICATORS

- **Growth ratio:** 66 percent increase from 2017/18 to 2018/19.
- **Consumer protection investment ratio:** 23 percent indicates that almost a quarter of the insurance budget is dedicated to improving the financial capacity and understanding of farmers.
- **Promptness of claims settlement:** 105 days were needed to finalise all processes for payout disbursement. This timeframe is above the optimal recommended limit of 60 days and needs to be improved in upcoming seasons.

A Beneficiary Contact Monitoring survey was conducted with 130 households two months after the payout to determine the quality of payout process, utility and participants' satisfaction. Through this survey and through other qualitative surveys, participants reported that their experience with index insurance was positive, as the payment of the insurance premium translated into productive assets they created on their farms. The payouts received also enabled households to pay for school fees after a failed agricultural season. Schooling is a priority household expenditure as it is considered a main driver of resilience in their communities, as households with higher levels of education are usually better off. Moreover, farmers suggested that the insurance cushioned them against crop failures thereby enabling them to take some degree of risk when investing in their farms. Insurance functioned as a guarantee and allowed farmers to borrow seeds from commercial agro-vets and repay when the payouts were received. The Beneficiary Contact survey presented an overall satisfaction with the insurance product but showed that the withdrawal process needs to be improved to reduce the time and cost of transport as well as the fees paid to retrieve the payout.

Key programme findings

After one year of the programme, the outcome monitoring system followed the evolution of a set of key indicators related to food security, household economics, agricultural practices, financial capability and resilience capacity, providing positive results. The key findings are reported below:

- Compared with the control group, the insurance payout received by R4 participants has contributed in reducing the need to undertake consumption coping strategies such as reducing the number or portion of meals in a statistically significant way.
- R4 participants maintained their resilience capacity index, which attempts to measure progress towards building the capacity of households to withstand future shocks, while households in the control group experienced a slight decrease over the period. The differences observed are due to an improvement on the saving capacity of R4 participants and a reduction on the amount of remittances received by the control group.
- The insurance payouts received by R4 participants proved to be efficient in improving livelihood resilience by reducing the number of households resorting to negative consumption coping strategies, enhancing the saving capacity and reducing household indebtedness. These effects allowed households to invest in agricultural and livestock production to improve their yields and protect and restore their herds.

Outlook for 2019 and beyond

Future scale up of the R4 programme in Kenya will be informed by the design of an area yield index for two additional semi-arid counties, which are part of the Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL) partnership for strengthening resilience in the arid and semi- arid lands (ASALs). The technical assessment will also identify opportunities for synergies with existing national risk management mechanisms and tools, and thus contribute to national capacity strengthening in climate risk financing.

A member of a Village Savings and Loans group (VSL) in Masvingo Ward 17 showing part of the saved funds.
WFP/Ashley Baxstrom

R4 Zimbabwe 2018

Since **2018**

500 households (2,800 persons)

59 percent women

Masvingo

Aquaculture, Blue Marble, CIMMYT, Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement, Old Mutual, SNV

SDC, USAID, France

Key Achievements

- 500 farmers officially protected by weather index insurance for the 2018/19 season.
- **Cumulative value of savings:** US$4,955.

R4 Programme in Zimbabwe

The R4 initiative in Zimbabwe builds upon and combines the knowledge and capacity accumulated by WFP and partners on productive asset creation (FFA), appropriate seeds and agricultural practices, weather index insurance, promotion of savings and access to credit. In addition to the four risk management activities, R4 in Zimbabwe also supports farmers' access to markets, linking with WFP's P4P programme, as well as the improvement of farmers' decision making in the context of climate change and erratic rainfall patterns, through climate services.

Risk Reduction component: In Zimbabwe, farmers participate in WFP's FFA programme, building assets that decrease their vulnerability to climate shocks over time. Farmers also take part in appropriate seeds and agricultural practices activities, such as establishing demo plots.

Risk Transfer component: Farmers gain access to weather index insurance policies through investing additional labour in building risk reduction assets. When a drought occurs, compensation for weather-related losses prevents farmers from selling assets and stimulates faster recovery.

Risk Reserves and Prudent Risk Taking component: Farmers participate in Village Savings and Lending groups (VSLs), which support participants in establishing small-scale savings used to build 'risk reserves'.

2017/18 Agricultural season: Erratic rainfall conditions led to low crop production

The 2017/18 rainfall season pattern in Zimbabwe[23] was erratic, characterized by late onset, long mid-season dry spells, late wet spells, leading to flash floods in low lying areas. This resulted in a reduction in household crop production as compared to the previous season and the recent five-year average in most areas.

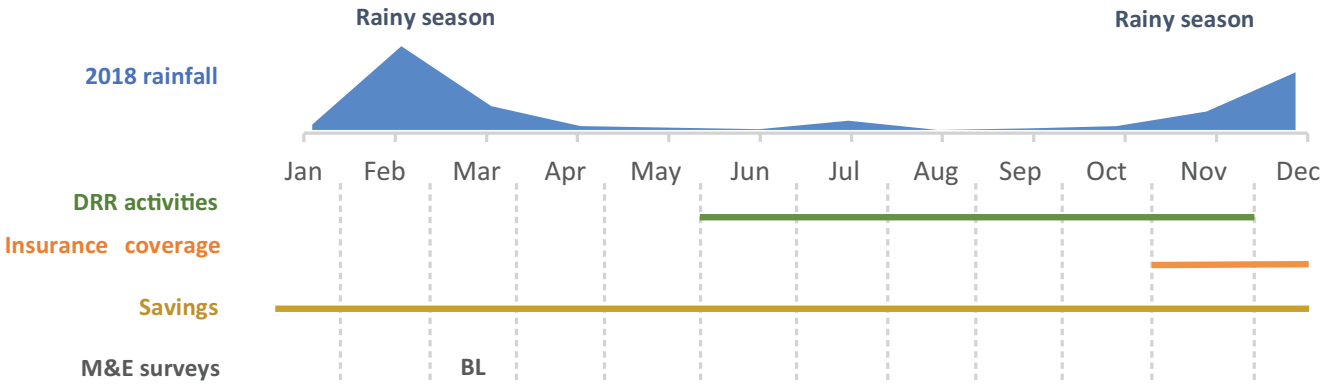
Despite a relatively positive 2016/17 agricultural season, most households had lower levels of cereal stocks compared to consumption of the two previous years. This is being exacerbated by low incomes and constrained livelihood strategies.

The cereal security situation analysed during the period April to June 2018 is expected to deteriorate during the peak hunger period -from January to March 2019- with the population in crisis or worse increasing up to about 28 percent of the rural population in need of urgent humanitarian support.

Project Status

The R4 initiative is implemented in the Masvingo District of Zimbabwe. The weather index insurance product was finalized and piloted for the 2018/19 agricultural season.

FIGURE 9. Zimbabwe 2018 seasonal calendar



23. Integrated Food Security Phase Classification (IPC).2018. *Current and projected acute food insecurity situation.*

Risk Reduction Component
Under the risk reduction component, farmers completed the asset creation activities planned for the first year of implementation, including the water catchment protection, the construction of a demonstration grain storage facility, the upgrading of the water conveyance system, and rehabilitation of the access road.

Risk Transfer Component
In 2018, the insurance product was finalized and a total of 500[24] farmers (59 percent women) registered for insurance under R4 in Masvingo District. Farmers have been officially protected by weather index insurance since 31 October 2018.
Due to current macro-economic challenges in the country, with a rise in inflation rates and increases in prices since October 2018, WFP and its insurance partner Old Mutual have been concerned about the settlement mechanism of insurance payouts, if triggered, for farmers. Consequently, WFP and Old Mutual have rearranged the planned payout procedures, which involved transfers to participants through mobile money in local currency accounts. After evaluating different options and discussing with Econet, the major mobile money provider in country, WFP and Old Mutual agreed to transfer money in case of a triggered payout by using the Foreign Currency Account (FCA) facility by Ecocash.

Risk Reserves and Prudent Risk Taking Components
Financial education trainings to establish VSLs have been carried out as planned, with nine trainings conducted with 293 households between October and December. A refresher training on the integrated R4 approach was also conducted, including all R4 participants. 293 farmers (93 percent women) participated in 20 VSL groups, resulting in a cumulative savings of US$4,955. A total of 54 famers (92 percent women) accessed loans for a total of US$6,382 with a repaid loan amount of US$5,772.
In November, a delegation from the Swiss Agency for Development and Cooperation (SDC) visited the community in Masvingo District to verify the progress during the first year of R4 implementation in the country. The visit included explanations from the community on how the weather index insurance and VSL components functioned, as well as a tour of all the assets built through FFA with an overview of the appropriate seeds and agricultural practices utilized in the first established demonstration plot.
The SDC delegation was satisfied about the progress made by the programme and was particularly impressed by the farmers' knowledge of the weather index insurance product. As part of its feedback, the SDC delegation stressed the need to ensure that the programme's components are closely linked together to develop synergies, this being one of the main objectives for WFP and its partners in 2019. Strengthening integration will be the key topic of the first R4 Partners Quarterly Meeting in 2019 in Masvingo.

Key programme findings
A baseline survey to collect key indicators was carried out in February, thanks to the joint efforts of the Country Office Monitoring and Evaluation (M&E) team, WFP HQ, and the Masvingo Field Office. The key recommendations of the exercise are in line with the proposed R4 interventions and are reported below:

- The main drivers of food insecurity in the area are related to low productivity, low investment capacity and lack of climatic information. To address these issues, existing development interventions need to promote access to reliable climate services, credit and savings facilities, as well as appropriate agricultural practices and linking households to markets.
- In terms of gender dynamics, the average crop production, access to credit, and savings capacity is lower for women compared to men. Similarly, for food expenditure share distribution, more women were found to be severely food insecure. Programmes need to focus more on strengthening women's participation in development activities to improve their investment capacity, agriculture productivity and improve their wealth status.

The mid-term survey for the first ward of intervention, Ward 17, as well as the new baseline for additional wards following the initiative's scale up, will be carried out in February 2019.

Outlook for 2019 and beyond
In Zimbabwe, R4 aims to reach 50,000 people by 2021 in Masvingo and Rushinga Districts. In 2019, the initiative will expand to three additional wards in Masvingo, reaching a total of 2,000 households.

24. Four farmers dropped out after insurance registration.

An auto rain gauge at Cheelo weather station in Muzoka, Zambia.
WFP/Crissy Mupuchi

The Risk Transfer Component

Under the risk transfer component, index-based insurance - an innovative type of insurance based on a proxy for losses- is offered to participants. Index based insurance compensates farmers based on changes in a pre-determined index correlated with agricultural yield, rather than on-site assessments of actual damage incurred due to insured risks. Insurance payouts are distributed to insured farmers if the index falls beyond a pre-determined threshold e.g. rainfall recorded over a certain period is below the value set in the index for drought coverage. The indexes are designed by specialized research institutions such as the International Research Institute for Climate and Society (IRI) or technical service providers from the private sector, such as Pula Advisors or Blue Marble, in close consultation with farmers, local and national government ministries, local partners and experts in agro-meteorology and remote sensing. Discussions during the index design phase determine the parameters for the index such as triggers, exits, frequency of payouts, fixed start of season, coverage windows and amount of the payout allocated to each window. Index based insurance can be categorized into two types:

Weather index insurance

Payouts are triggered by the actualization of a specific weather parameter such as rainfall measured surpassing a threshold over a pre-specified period of time, using either a particular weather station or via satellite. The parameters of the insurance contract are set so as to correlate, as accurately as possible, with the value of loss for a specific crop type. WII utilized by R4 is designed to cover two main drought perils: (i) severely late onset of rainfall or significant dry spells after sowing or in the middle of the season; and (ii) severely early cessation of rainfall or significant dry spells late in the season. As payouts are based on the same contract and rainfall measurement for a unit area, the need for an in-field assessment is eliminated and all insured farmers within this defined area receive the same payout levels. This product is currently offered to R4 farmers in Ethiopia, Senegal, Malawi, Zambia and Zimbabwe, with some adjustments depending on the needs. Additionally, a hybrid index using vegetation indices has been adopted for the second window in Ethiopia.

Area yield index insurance

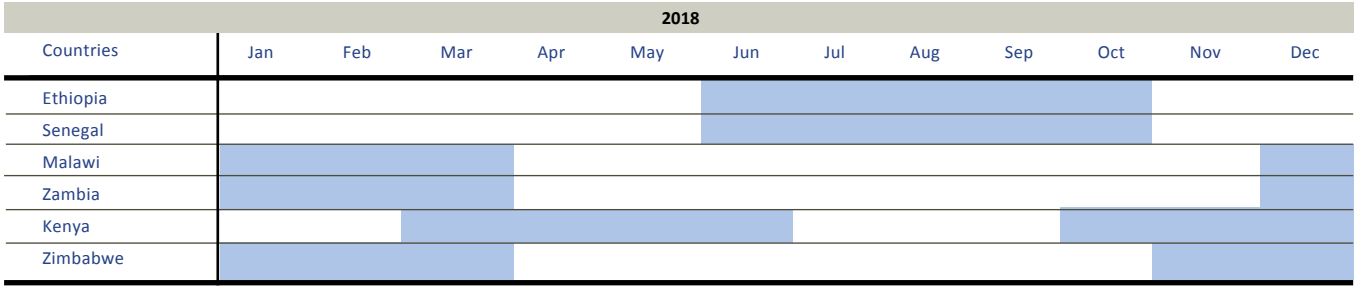
Payouts are based on the realised average yield of an area such as a county, a district or even a village, not the actual yield of the insured farmer. The insured yield is established as a percentage of the historical average yield for the area. A payout is triggered if the realised yield for the area is less than the insured yield regardless of the actual yield on the insured's farm. A credible and consistent yield time series at the selected level of aggregation is required to design such an index insurance product. This product is currently offered to R4 farmers in Kenya.

Index-based Livestock Insurance

Starting in 2018, index insurance is also offered to pastoralists in the Somali region through the Satellite Index Insurance for Pastoralist in Ethiopia (SIIPE). SIIPE uses a pre-emptive approach, providing livestock asset protection insurance with the aim of keeping core breeding animals alive during major droughts. Under this type of insurance product, instead of providing payouts at the end of the season when the animals might have already died, early and regular payouts are provided in case of droughts to keep the core breeding animals alive and build the resilience of households in coping with droughts. These regular payouts during droughts can be used to provide supplementary feeding as well as timely veterinary care, which can be critical in keeping livestock alive.

The insurance coverage uses innovative satellite technology to measure the availability of pasture in grazing lands for pastoralists. The product index is based on the Normalized Vegetative Difference Index (NDVI) with triggers calibrated to ensure that payouts start to trigger when pasture and grazing resources are scarce and likely to lead to animals' malnourishment.

FIGURE 10. Calendar of rainy seasons in R4 countries



Insurance Performance Indicators

To ensure the quality of the insurance component, the programme has set up an Insurance Performance Indicators monitoring system. These Key Performance Indicators (KPIs) are standard indicators recommended by the Microinsurance Network- a global multi-stakeholder platform for professionals and organisations working on microinsurance. KPIs are used to track the quality of the insurance component and how products are providing value for money. Included below are key Insurance Performance Indicators that are being measured by R4.

Growth ratio

This indicator determines the increase in number of insured participants on an annual basis. The acceptable value varies according to the project design target.

Data required for calculation

The total number of participants in the current season and the total number of insured participants in the previous season both at national and district level will be required for this indicator.

How to calculate

$$\textit{Growth ratio} = \frac{\textit{Number of insured (t)}}{\textit{Number of insured (t-1)}}$$

Significance and interpretation

The trend in growth ratio is an important indicator of the success of the programme over the period under consideration. The expected growth ratio for a voluntary programme like R4 should follow the classical S-shaped pattern – a bit slower at first, increased growth as awareness improves and marketing becomes more effective, and then a slowdown as the coverage ratio reaches 100 percent. Such a trend may be applicable for the full cash participants under R4 but may not be the case for the Insurance for Assets (IfA) (full/partial) category as growth in this category is also constrained by budget considerations.

Red flags

The following patterns may raise red flags about the viability of the programme:

- Very erratic growth rate;
- Declining/negative growth rates over several consecutive years;
- Very rapid increase in growth rate with a nil or negative growth in 'consumer protection investment ratio'. This can pre-empt a discussion that a sufficient investment to build capacities to sustain this large growth in the near future is not being made.

Promptness of claims settlement

This indicator measures the efficiency of the claims settlement process. The acceptable value is less than two months from closure of second window for WII and crop cuts for AYII.

Data required for calculation

As per the claims settlement process in place for a given district or country, claims may reach the insured participant either directly or through an aggregator such as a farmers' organisation. Data needs to be collected at each stage of claims settlement, once declared by the insurer. For direct transfers from policy holder to the participant, this data can be accessed from the relevant policy holder partner. For indirect transfers through aggregators, a survey may need to be conducted to capture this information.

How to calculate

$$\textit{Promptness of claims settlement}_{\textit{policyholder}}$$
$$= \textit{\#days required to process claims to policyholder}$$

$$\textit{Promptness of claims settlement}_{\textit{aggregator}}$$
$$= \textit{\#days required to process claims to aggregator}$$

$$\textit{Promptness of claims settlement}_{\textit{participant}}$$
$$= \textit{\#days required to process claims to participant}$$

Number of days must be calculated from the end of second window for WII and end of crop cuts for AYII. Additionally, the last date of process completion must be considered.

Significance and interpretation

As timely insurance payout plays a vital role in facilitating recovery from droughts and ensuring food security, tracking this indicator will provide a key measure of effectiveness of the risk transfer component of R4. Calculating this indicator at different intervals of the settlement process can also help identify key bottleneck areas that must be strengthened for the next seasons.

Red flags

The following cases may raise red flags for this indicator:

- Payouts to participants 3 months after closure of second window for WII;
- Poor track record of promptness of claims settlement with high increase in growth rate.

Consumer protection investment ratio

This indicator measures the amount of resources dedicated for consumer protection -financial literacy, awareness, and communication. The indicator is the proportion between the consumer protection investment and the implementation cost of the risk transfer component of R4. The acceptable value has to be greater than 10 percent.

Data required for calculation

The total number of participants in the current season and the total number of insured participants in the previous season both at national and district level will be required for this indicator.

How to calculate

$$\textit{Consumer protection investment ratio} = \frac{\textit{Consumer protection investment}}{\textit{Implementation cost of risk transfer}}$$

Significance and interpretation

This indicator helps to capture what proportion of the total risk transfer cost is being utilised to build capacity at the participant level through direct and indirect means, including local and national capacity strengthening. Trends in this indicator can provide insights into whether investments being made are sufficient in proportion to sustain the growth of the scale up planned. Additionally, a comparative analysis of this indicator across different countries can highlight areas that require strengthening and where resources can be used efficiently.

Red flags

Given the importance of this indicator, red flags are to be raised in the following cases:

- Consumer protection investment ratio and growth ratio are not comparable with each other;
- Consumer protection investment ratio is lower than 5 percent of total risk transfer cost.

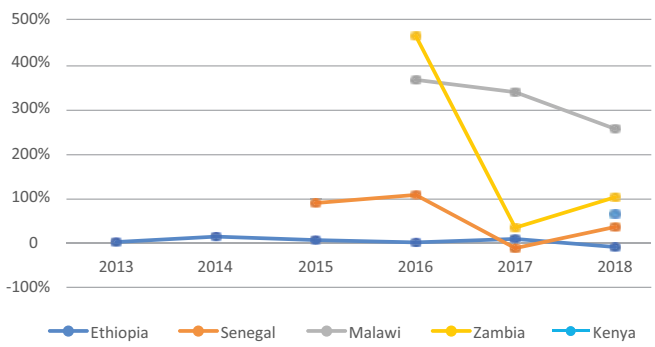
Comparative Analysis of Insurance Performance Indicators

This section highlights key takeaways from comparison of a selection of Insurance Performance Indicators between the five R4 countries where the risk transfer component is operational. These indicators showed a positive trend on portfolio growth and quality of the product. However, improvements need to be done on the speed at which payouts are released after the index triggers. The time for participants to receive a payout is currently averaging 116 days. WFP expects to reduce this time to 60 days, ensuring that participants receive a timely transfer after a shock and making insurance an essential component of an integrated climate risk management approach.

Growth Ratio

High growth ratios are observed in Malawi and Zambia as expected, given the expansionary nature of the project in these countries. This should be supplemented with robust tools and systems (e.g. registration, data systems), to ensure sustainability of the expansion. After the initial high growth in the expansionary stage in Ethiopia, growth is more modest but still positive, which could be a result of the resources available for the project. Senegal experienced a drop in its insured portfolio due to resource constraints in 2016/17.

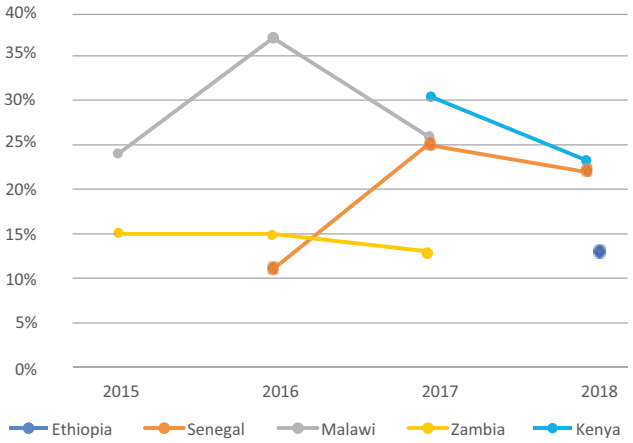
FIGURE 11. Growth Ratio indicator in the five R4 countries



Consumer Protection Investment Ratio

Given the expansionary stage of a project with strong focus on consumer protection, ratios in Malawi, Zambia and Kenya are quite healthy. In Senegal, the ratio for 2016 is above the required threshold but a bit on the lower end compared to other countries. This could be a result of the maturity of the program or resource constraints. This ratio could not be computed for Ethiopia (except for 2018) due to the lack of available data.

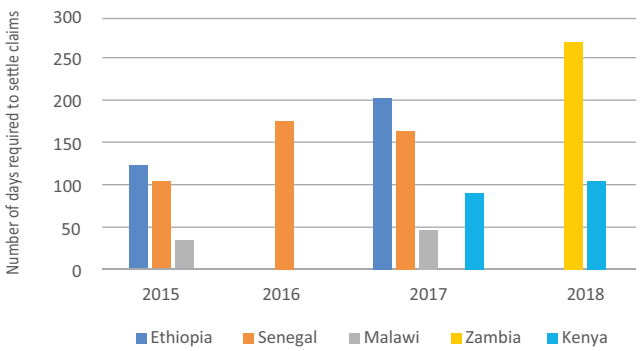
FIGURE 12. Consumer Protection Investment Ratio indicator in the five R4 countries



Promptness of Claims Settlement

Though there is an increase in number of days required to settle claims after closure of second window in 2017/18 compared to 2015/16, Malawi is the only country where the figures are within acceptable limits. It is to be noted that this was possible due to WFP's lead in the settlement process, which may not be sustainable in the long run. In all other countries, the number of days required to settle claims after closure of second window is extremely high and outside the acceptable range. As one of the key benefits of index insurance is the ability to quickly settle claims, this benefit is compromised in such a case.

FIGURE 13. Promptness of Claims Settlement indicator in the five R4 countries



Haftu Kidanu Hadgu joined the R4 programme seven years ago and now helps collect data that determines insurance payouts.
WFP/Michael Tewelde

Monitoring, Evaluation, and Learning (MEL)

In the evaluation and learning agenda of R4, different tools have been applied to assess progress in the implementation of the programme and its effects on participant households by country and across the different development stages of the initiative.

A rigorous monitoring, evaluation and learning (MEL) system is being streamlined across countries in order to assess the impact of the program in its totality. This system is based on a sequential set of assessments to track participants' access to different services over time, assessing the quality of those services – particularly the performance of microinsurance, including the opinion of users, and measuring the effects of the integrated approach in a rigorous, transparent and cost-effective manner. The different components of the MEL system provide information on:

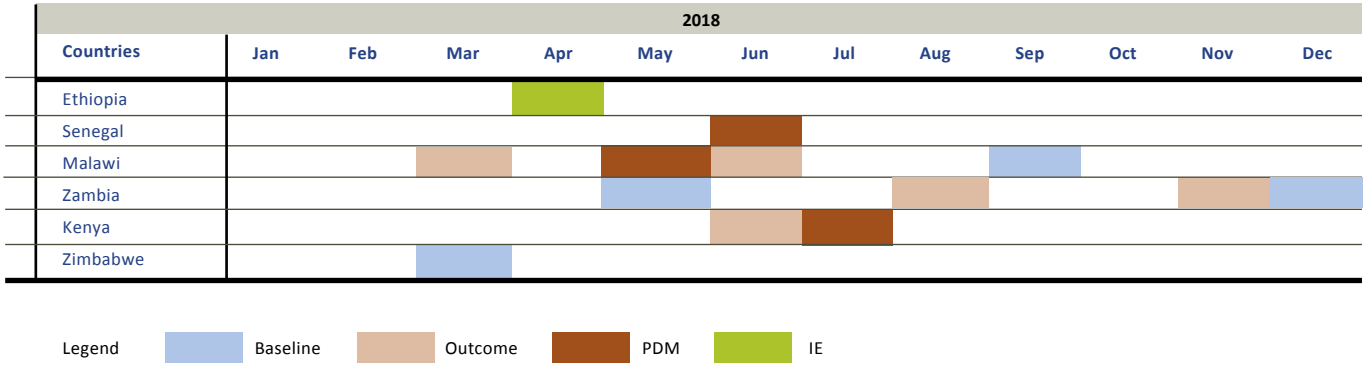
- **Household registration and output monitoring:** this is periodically done with the support of implementing partners to inform WFP on the magnitude of the intervention, access to the different components, entry and exit over time and to assist in defining a clear graduation path. In line with WFP's beneficiary guidance, the organization continues developing a standardized corporate tool and methodology for registering beneficiaries. However, systematically recording who accesses which services over time has proven particularly challenging given the technicalities of registering a large number of people living in remote, rural areas.

- **Use of and satisfaction from insurance payouts**, through a series of Beneficiary Contact Monitoring surveys, WFP is able to determine how participants are utilizing the

insurance payout, which has highlighted the importance of payouts to purchase food and meet other financial and social obligations. These surveys are usually conducted one month after an insurance payout is disbursed and are aimed at informing and orienting the initiative to the real needs and perceptions of the population served. For instance, past surveys have confirmed the positive effects of insurance, but have indicated a need to improve the timeliness, communication and withdrawal methods for insurance payouts in order to increase participants' satisfaction. This has fostered further action to improve consumer protection and education, as well as improving the promptness of claims settlement. This year, participants showed high levels of satisfaction with the product and expressed interest in continuing to participate in the R4 programme.

- The evolution of **outcome indicators** for R4 participants and for a control group to understand the effects of the integrated climate risk management intervention. While the MEL system does not yet have enough long-term data to document changes across the board, the preliminary results are encouraging. Indicators collect information on the food security, wealth, agricultural production and financial situation. In addition, resilience is measured through the adaptation and testing of the Resilience Index Measurement and Analysis (RIMA) model, which is one of the analytical tools based on the resilience framework from the Food Security Information Network (FSIN).

FIGURE 14. Timeline of M&E surveys or analysis conducted in 2018



Key Results

While this comprehensive MEL system is being progressively rolled out in every country, preliminary data suggest that the R4 Initiative is achieving progress in these key areas:

- Surveys conducted in Kenya, Malawi and Senegal showed that insurance payouts were mainly used to purchase food, cover basic needs and livelihood investments. Utilizing the payouts for these purposes has the potential to limit the degradation of household food security after a failed growing season. For example, in Senegal and Kenya, after several seasons of bad harvests, R4 **farmers were able to maintain their food security** compared to others exposed to the same risks.

- The programme has promoted improvements **in household saving capacity as well as access to credit.** A previous impact evaluation in Ethiopia, showed that insured farmers saved more than twice compared to those without any insurance, and R4 farmers invested more in seeds, fertilizer and productive assets. In Malawi, after two years of implementation, a 74 percent increase was observed in the number of households being able to save and almost all participants had access to credit.

- In general, **participants are highly satisfied with the R4 programme** and the microinsurance component. Participants in Malawi reported that the intervention increased their wellbeing, with women noting the greatest gains. In the different R4 countries, households that received an insurance payout stated they would like to enroll again and are willing to pay a cash contribution for insurance in the future.

Lessons Learned

R4 places a strong emphasis on the need to regularly assess its impact on participants, identify challenges, and ensure that results of the analysis feed directly into R4's strategic planning. This allows for progressively capturing lessons learned and apply them in an iterative process of testing and learning. Some of the lessons learned so far are summarized below.

- The integration between R4 components is fundamental for the expansion and scale up of the initiative. Insurance should not be used as a standalone tool but should be combined with other complementary services in an integrated risk

management approach, where components are closely connected and mutually reinforcing. Insurance should usually answer a specific need and focus on low frequent/high impact shocks.

- A clear exit strategy, multi-year resources, and increased efforts are needed to strengthen the mechanism that help farmers transition from a situation of vulnerability to climate shocks and food insecurity to a situation of resilient livelihoods and productive households.

- Consumer education and protection is key. Ensuring that farmers understand the products they are buying, the costs involved, and how index insurance works is an important aspect of the R4 model. It is essential to think of participants as 'clients' and to continue actively engaging them in project design, product customization, and outcome monitoring while also ensuring a strong feedback mechanism. It is important to obtain inputs from farmers and train them in weather data collection. Continued effort is needed to communicate in ways that encourage local farmers' participation. Using the insurance contract in local language is a good way to convey the message at the household level, ensuring a better understanding amongst farmers.

- National ownership since project inception is crucial. To increase the efficiency and effectiveness of the programme, stronger government engagement is needed, as well as from private stakeholders. R4 is developing frameworks for partnering with national social protection programmes, integrating microinsurance into national safety nets, complementing and leveraging existing targeting and data management systems and delivery mechanism, as well as providing capacity strengthening and technical support to government counterparts. Moving forward, stronger links with key government stakeholders will allow the programme to be integrated in the countries' strategies on social protection. In addition, stronger ownership from local insurance companies is required to make the overall approach sustainable.

- Setting up the proper delivery mechanisms for awareness raising and distribution of the insurance product has become the key challenge for the risk transfer component, now that R4 is about to significantly increase its portfolio. Delivery channels that have the technological capacity to report sales, aggregate farmers, handle premium collection and claims settlement are preferred, although there is no 'ideal' one.

- Building the capacity of local stakeholders is essential to ensure ownership and for the sustainability of the initiative. Transferring skills is crucial, although this is a lengthy process that should be started as early as possible.

- There are different types of risk transfer tools including satellite weather index insurance, rain gauge-based indices, or area yield index insurance. All have their strengths and weaknesses and the next phase of R4 will focus on building systems with local stakeholders and preparing to progressively phase out of the insurance process.

- Progress toward making weather index insurance sustainable is limited. The significance of this concern depends on the outlook for continued donor funding. R4 aims to develop the productivity and livelihoods of its participants through financial inclusion and by making insurance more commercially viable, facilitating the ability of farmers to pay for services, while also promoting the design of products better adapted to higher income farmers. The objective is thus to facilitate a progressive and smooth transition from heavily subsidized to purely commercial services. R4 has increased the portion of the premium that has to be paid in cash, but few farmers are yet graduating from paying with labour to paying in cash and the proportion of farmers who pay fully in cash has declined over time. The speed at which farmers are able to transition to full cash payments is dependent on the context and on how well and fast the programme is able to integrate the different components, particularly regarding the increase in income generation. R4 will experiment with scaled cash payment requirements that increase with the household's ability to pay according to transparent criteria.

R4 farmer participating in asset creation activities in Blantyre, Malawi.
WFP/Badre Bahaji

Where are we and where are we going?

During 2018, in the six countries where R4 operates, the number of participants increased by 60 percent from the previous year, with the largest growth coming from Malawi, thanks to a significant but short-term contribution by UK's Department for International Development (DFID). Overall growth projections have been realigned with the funding that will become available during 2019 for Senegal and Ethiopia from the Green Climate Fund (GCF) and the German government-owned development bank (KfW), respectively. With this additional funding, and under the assumption that the Swiss Agency for Development and Cooperation's support in Southern Africa will enter a third phase after 2021, all current R4 countries, with the exception of Kenya, will have the resources required for implementing the initiative for the next five years or more. This multi-year funding will allow the R4 Initiative to make the investments needed to facilitate a sustainable scale up in each of these countries. The figure below shows the contributions to R4 of past and current donors and technical partners.

FIGURE 15. Donor contributions to R4

Donor	Recipient	Total contribution (US$)	Countries	Funding period
Swiss Agency for Development and Cooperation - SDC	WFP	6,579,000	Malawi, Zambia	(2014-2017)
France	WFP	539,407	Senegal	(2016-2017)
Swiss Re	Oxfam America	1,250,000	Ethiopia, Senegal	(2012–2016)
Margaret A. Cargill Foundation	Oxfam America	5,000,000	Ethiopia, Senegal	(2015-2016)
United States Agency for International Development - USAID	WFP	7,958,453	Senegal	(2012–2015)
USAID - iDIV Award	WFP	500,000	Senegal	(2014-2015)
Norway	WFP	2,700,000	Senegal	(2013–2014)
Rockefeller Foundation	Oxfam America	599,000	Senegal	(2012–2013)
Oxfam America	Oxfam America	1,100,000	Ethiopia	(2010–2013)
Swiss Agency for Development and Cooperation - SDC	WFP	9,691,542	Malawi, Zambia, Zimbabwe	(2017-2021)
Canadian International Development Agency - CIDA	WFP	500,000	Kenya	2018
France	WFP	500,000	Senegal	2017
Oxfam America	Oxfam America	1,273,833	Ethiopia, Senegal	2017
KfW	WFP	20,000,000	Ethiopia	(2018-2022)
Green Climate Fund - GCF	WFP	10,000,000	Senegal	(2019-2023)
Department for International Development- DFID	WFP	5,000,000	Malawi	2018
Flanders International Cooperation Agency - FICA	WFP	2,500,000	Malawi	(2017-2020)
Korea International Cooperation Agency - KOICA	WFP	1,200,000	Zambia	(2017-2019)
France	WFP	250,000	Zimbabwe	(2017-2018)
USAID	WFP	146,666	Zimbabwe	(2018)

2018 also marked the transition away from the 'R4 pilot', which successfully aimed to take the HARITA model to multi-national scale through leveraging WFP's extensive network of safety nets and cash-for-work programs. Over the years, WFP has worked with Oxfam America to translate the R4 concept into a context based, participatory, flexible, and results-oriented integrated risk management model and to mainstream it into WFP's core operations. This included efforts to document how the R4 integrated risk management model contributes to SDG2, and in particular to the 'resilient food systems' strategic result, and to develop strategic and operational linkages with other key areas of WFP work, including asset creation and livelihoods, social protection, smallholder access to markets and nutrition.

Mainstreaming the R4 model into WFP's operations requires adjusting the narrative to avoid constraining the approach to a rigid four component structure, as the services offered vary according to geographic and programmatic contexts. R4, however, has proven to be a successful global brand that embodies effectively scaling up microinsurance within a comprehensive risk management strategy. In that respect, WFP has become a key player in international efforts to scale up insurance under the InsuResilience Global Partnership and continues to attract bilateral and multilateral funding to support multi-year country investments. In order to deliver on these expectations, WFP continues to invest in technical and programmatic capacity at global, regional and national levels.

Looking Ahead

R4 will continue to promote insurance as one of its key tools for rapidly and reliably delivering resources to food-insecure households after a shock through integrating insurance into national social protection systems and/or rural development programmes. However, by targeting the poorest and most vulnerable to climate shocks, R4 expects to broaden the insurance market and contribute to the expansion and consolidation of commercial insurance in rural areas.
The R4 model is more suitable for contexts in which high food insecurity is exacerbated by recurrent climate-related shocks. The target has mostly been smallholder farmers with an emphasis on slow onset shocks, such as droughts, rain failure or delay in the onset of the rainy season. However, in 2018, pastoral insurance was developed in Ethiopia and there are plans to apply the lessons learnt to Senegal. In addition, WFP is working to design and test flood insurance in Bangladesh this year. Finally, while the majority of R4 countries have focused on developing improved Weather Index Insurance products, the initiative has begun experimenting with Area-Yield Insurance products in Kenya. R4 will continue innovating and implementing programmes that help vulnerable populations access the insurance products that best fit participants' needs across various regions and countries.

Expansion has primarily been driven by demand from WFP Country Offices (COs) and/or donors' regional priorities. Hence, the strategy has been to stimulate CO's demand, through informing WFP national teams about the potential and benefits of integrating risk transfer tools into their core programming, supporting the inclusion of such interventions and outcomes into their Country Strategic Plans (CSPs) during the development phase. In parallel, it has been essential to mobilize donor interest, by documenting the results obtained and presenting WFP's work on microinsurance as part of an integrated climate risk management approach at various high-level advocacy events across the globe.

In the next few years, R4 plans to increase efforts on the 'prudent risk taking' component, focusing on how insurance can promote investment and financial inclusion. This is critical to achieving scale and transitioning away from a social protection model to a more commercial pathway, in which farmers can pay for insurance themselves, as it creates value in their production system.

There are currently at least eight countries in which an expansion of the R4 model is underway or being envisioned. In Mozambique, microinsurance and climate risk management interventions have been identified and the CO is currently fundraising to implement the integrated approach. In Burkina Faso, The Gambia and Mali, actions are underway to test the inclusion of a microinsurance component in existing WFP resilience-building programmes. These will be combined with efforts to build a coherent set of rapid response tools in the case of shocks, including under the ARC-Replica framework. In Bangladesh, WFP has received long-term funding from Korea for testing and developing a flood insurance model that integrates and complements a Forecast-based Finance (FbF) mechanism. Finally, in Central America feasibility studies and project design are ongoing in the 'Dry Corridor' of Guatemala, El Salvador and Honduras. The vision of R4 is to expand the initiative into ten to fifteen countries, reaching 500,000 insured farmers by 2022.

Conclusion

In 2018, R4 has provided over 87,000 families (about 545,000 people) in Ethiopia, Senegal, Malawi, Zambia, Kenya, and Zimbabwe with access to index insurance and a range of complementary risk management options. Furthermore, nearly 6,000 non-R4 farmers have accessed insurance products developed by the R4 initiative, either delivered through non-WFP programmes or by paying their insurance premium fully in cash.

R4 significantly scaled up in Malawi, insuring over 36,000 farmers and expanding to three new districts, including Mangochi, Chikwawa, and Nsanje. In Zambia, R4 expanded to four new districts, including Gwembe, Namwala, Monze, and Mazabuka and insured a total of 7,821 farmers. In Zimbabwe, the insurance product was finalized, and 500 farmers were insured for the 2018/19 agriculture season. R4 in Kenya scaled up to 9,485 farmers and in Ethiopia the initiative currently reaches 29,300 farmers. Moreover, WFP also began offering insurance to pastoralists in 2018 through the Satellite Index Insurance for Pastoralist in Ethiopia (SIIPE). This year, a total of 5,001 participants were insured in the Somali region of Ethiopia.

Annex 1: Metrics from the Field

ETHIOPIA

Risk Reduction

- 27,279 farmers (10,420 women) enrolled in FFA activities;
- 6,9 km of hillside terrace constructed on degraded communal lands;
- 10,6 km of deep trench, 25 km of trench bund and 9,8 km stone faced trench bund constructed on degraded communal lands;
- 1,765 micro trenches constructed;
- 345 water percolation trenches constructed;
- Cultivation of 84,710 seedlings conducted;
- 4,808 m^3 percolation channel constructed;
- 76,437 different multipurpose trees planted in Tigray and 84,710 in Amhara;
- 1,4 km of runoff and flood diversion canals constructed by excavating 1,327 m3 of soil to support 58 hectares of land with flood diversion;
- 1,020 plots of micro-garden prepared to produce vegetable crops;
- 1,051 compost pits dug to prepare compost for growing vegetables for rain fed farming;
- 70 Roof Rain Water Harvesting systems installed.

Risk Transfer

- 29,300 farmers (10,420 women) insured;
- 2,794 farmers paid their insurance fully in cash;
- 2,021 farmers accessed R4's insurance product through other donor-funded programmes;
- Value of premium amounts to US$354,649 (ETB10,150,054);
- Total sum insured amounts to US$2,139,979 (ETB61,246,198).

Risk Reserves and Prudent Risk Taking

Tigray

- 4,400 farmers (1,682 women) participated in 186 VESAs saving US$24,146 (ETB678,170) and US$25,813 (ETB724,986) in RUSACCOs;
- 465 farmers accessed loans worth US$7,371 (ETB207, 032).

Amhara

- 3,926 farmers (1,339 women) saved US$14,271 (ETB400,911) in 213 saving groups;
- Cumulative saving value amounts to US$670 (ETB18,844) from RUSACCOs;
- 3,134 farmers accessed loan of US$27,519 (ETB722,893).

SENEGAL

Risk Reduction

- 9,887 farmers (3,389 women) enrolled in FFA activities;
- 255 ha of rice, 85 ha of millet-cowpeas distributed;
- 19,183 meters of stone bunds constructed protecting 240 ha of land;
- 20,865 meters of dike created;
- 105 ha of rice field cultivated with a harvest of 3T/ha;
- 103 ha of beans, maize, sorghum field cultivated;
- 5 bio-digesters installed.

Risk Transfer

- 9,245 farmers (4,403 women) insured;
- 844 farmers (391 women) paid their premium fully in cash;
- 6,220 farmers paid 15 percent of their premium in cash;
- 2,181 farmers (57 percent women) paid 10 percent of their premium in cash;
- Total sum insured amounts to US$2,404,465 (CFA1,378,551,918);
- Premium amounts to US$305,063 (CFA174,953,057).
- Total cash contributions amount to US$28,147 (CFA16,142,304).

Risk Reserves and Prudent Risk Taking

- 14,846 farmers (11,951 women) participated in 655 savings groups;
- Cumulative value of savings amounts to US$317,000 (CFA182,626,870);
- 10,226 farmers accessed loans worth US$192,000 (CFA110,613,120).

MALAWI

Risk Reduction

- 39,276 farmers enrolled in FFA activities in Balaka, Zomba, Blantyre, Chikwawa, Mangochi, and Nsanje;
- VSL groups training in entrepreneurial skills and HIV management continued in all the six districts;
- 156 farmers (63 women) trained on cassava and orange-fleshed sweet potato multiplication in all the project impact areas;
- Community sensitisation on Weather Index parameters done across the districts. One community champion participated from each village including Area Development Committee (ADC) chairs;
- Training of water management committees for shallow wells done in all Balaka, Blantyre and Zomba districts;
- Training on rainfall data recording done to equip community champions on how to record and report rainfall from manual rain gauges installed across the catchment;
- Agro-advisories messages base on the downscaled seasonal forecast disseminated to farmers for the 2018/19 farming season;
- 154 Agricultural Extension Officers and Malawi Red Cross Volunteer participated in Participatory Integrated Climate Services for Agriculture (PICSA)'s Planning and Review Days (PnR) and developed agro-advisories for their respective districts;
- 15 meteorological officers trained in R-INSTAT aiming to improve the capacity of the Department of Climate Change and Meteorological Services (DCCMS) to produce quality analysis and products for climate services;
- 11 Agricultural Extension Officers for Nsanje District trained in PICSA methodology.

Blantyre
- 652,596 meters of swales created by 7,769 farmers;
- 4 group vegetable gardens constructed by 40 farmers;
- 21 shallow wells reinforced.

Mangochi
- 379,176 Km of swales constructed;
- 1,867 individual trenches built;
- 83 cassava and orange fleshed sweet potato multiplication sites at community level established;
- 46,200 meter of eyebrows basin established;
- 8 shallow wells at Binali and Kalino constructed.

Chikwawa
- 216 km of swales constructed;
- 56,806 meters of individual trenches built;
- 12 community vegetable gardens established;
- 2 plots of cassava multiplication sites established;
- 2 plots of sweet potato multiplication sites established;
- 16,096 meters of Eyebrow basins constructed;
- 23,564 meters of check dams constructed.

Balaka
- Three irrigation ponds constructed;
- 25,92 km of shallow wells constructed;
- 13,7 km of community road to ease transportation of produce to markets constructed;
- Supported construction of a school feeding shelter and a kitchen in Hambahamba and Mtumbwe GVHs;
- Lining of 142 shallow wells completed.

Nsanje
- 27,984 m of swales constructed;
- 34,886 square meters of cassava and sweet potato gardens established;
- 19,652 trees seedlings planted in tree nurseries;
- Four shallow wells constructed;
- Two community vegetable gardens established;
- 2,080 pits planted.

Risk Transfer

- 36,969 farmers (24,217 women) insured;
- 3,327 farmers paid 14.3 percent of their insurance premium in cash;
- 104 SAMS farmers contributed 50 percent of their insurance premium in cash;
- Total sum insured amounts to US$3,432,080 (MK2,498,554,043);
- Premium amounts to US$685,105 (MK499,092,141);
- Total cash contributions amount to US$9,781 (MK7,123,630).

Risk Reserves and Prudent Risk Taking

- 22,000 farmers (17,054 women) participated in 846 saving groups;
- Cumulative value of saving amounts to US$500,710 (MK365,017,460);
- 15,294 farmers (10,398 women) accessed loans worth US$109,172 (MK79,587,000);
- Repaid loan amounts to US$66,912 (MK48,779,000);
- 14 groups accessed formal microfinance credit in Balaka for a minimum of US$21,598 (MK15,745,000) per cycle and have so far been able to get loans for a minimum of 2 cycles.

ZAMBIA

Risk Reduction

- 7,821 enrolled in FFA activities;
- 7,610 farmers (4,032 women) trained on conservation agriculture land preparation techniques.

Risk Transfer

- 7,821 farmers (3,771 women) insured;
- Total sum insured amounting to US$769,562 (ZMW7,695,620);
- Premium amounts to US$130,677 (ZMW1,571,652);
- 3,835 farmers paid 15 percent of their premium in cash;
- Total cash contribution amounts to US$11,505.

Risk Reserves and Prudent Risk Taking

- 3,308 farmers (2,139 women) participated in 174 saving groups;
- Cumulative value of savings amounts to US$74,443 (ZMW744,436);
- 1,765 farmers (980 women) accessed loans from saving groups for US$89,744 (ZMW897,447) with a repaid loan amount of US$75,765 (ZMW757,657).

KENYA

Risk Reduction

- 10,235 (8,583 women) farmers enrolled in FFA activities;
- 17,98 ha of zai pits excavated;
- 275, 67 ha of terraces excavated;
- 18,970 tree pits constructed;
- 14,873 MT of manuring conducted;
- 480 m^3 of farm pond excavated.

Risk Transfer

- 9,845 farmers (8,124 women) insured for the 2018 short rains season;
- Payouts amount to US$585,657 for the 2017 short rains season;
- 3,158 farmers received a payout of US$125 in Kitui East and South and 1,594 farmers received a payout of US$119 in Kitui Rural;
- Total sum insured amounting to US$1,127,489 (KSHS112,906,748);
- Premium amounts to US$211,968 (KSHS21,226,475).

ZIMBABWE

Risk Reduction

- 496 farmers (293 women) enrolled in FFA activities;
- Demo storage grain facility constructed;
- 40 meters length and 4 meters height of masonry weir constructed;
- 1,000 trees transplanted to permanent plantations;
- 250 trench bed gardens constructed at household level finalized;
- 250 key hole gardens constructed at household level finalized;
- 500 farmers engaged in communal pasture regeneration;
- 2,5 Km of access road finalized;
- Catchment protections works finalized;
- Toilet construction finalized;
- Child play centre constructed;
- 10 demo plots established, covering an area of 5 ha;
- 60 kgs of maize, 10 kgs of sorghum, 10 kgs of millet, 30 kgs of Natal Common Groundnuts, 30 kgs of cow peas distributed for demo plots;
- 10 ripper tins, 2 precision scale, 2 hanging scale, and 10 rain gauges distributed.

Risk Transfer

- 496 farmers (293 women) insured;
- Total sum insured amounts to US$50,000;
- Premium amounts to US$7,795;
- 5 training on weather-index insurance to all participants conducted.

Risk Reserves

- 293 farmers (275 women) participated in 20 VSL groups;
- Cumulative value of savings amounts to US$4,955;
- 15 new saving groups formed with a total of 233 members (217 women);
- 9 financial education trainings conducted to 293 households;
- 54 farmers (50 women) accessed loans for US$6,382 with a repaid loan amount of US$5,772.

Annex 2: Rural Resilience Event Series

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
GCF Validation Workshop for WFP-Ministry of Environment, Water and Climate Proposal	R4 is a fundamental part of the proposal submitted to the GCF	WFP Zimbabwe CO	Presentation of the final proposal to the various stakeholders for the possible future implementation of the project.	Stakeholders from Zimbabwe Government Ministries, Met Service Department, NGOs, Academia, Private Sector	8 January 2018, Harare, Zimbabwe
Technical Regional Workshop on Needs assessment for Climate Services for improved Water Resources Management in vulnerable regions to Southern Africa	Presenter	UNESCO and Government of Flanders	Focus on integrated approach to combine climate services and other interventions towards better water resource management.	UN Agencies, Governments, NGOs	30-31 January 2018, Harare, Zimbabwe
Multi-Donor Meeting	Organizer	WFP Zimbabwe CO	Presentation of R4 developments in country to key donors.	USAID, SDC, French Embassy, Swedish Embassy	5 February 2018, Harare, Zimbabwe
Dialogue Platform on Forecast Based Financing	Participant	Red Cross	Networking and learning event on Forecast Based Financing.	IFRC, RC societies in Africa, Met Offices, UN agencies, Governments	21-22 March 2018, Nairobi, Kenya
2017 Claim Payout Ceremony	Facilitator	Relief Society of Tigray (REST)	Briefing on R4, declaration of payout and explanation on the indexes of trigger and addressing key messages to beneficiaries.	Insured farmers, Villages Design team member, REST Head office and project Officers, Bureau of Agriculture, DECSI,Africa Insurance company and WFP	26 April 2018, Tigray, Ethiopia
RBJ Country to Country Learning Exchange, Integrated Programming for Resilience	Participant	RBJ	Integrating various programme activities for integrated resilience programming.	Two participants per country, various participants from relevant RBJ units responsible for: gender, integrated climate risk management, social protection, smallholder market linkages, nutrition, VAM and M&E. Four participants from Malawi CO and four from Blantyre SO, and three participants from HQ responsible for R4, P4P, and FFA	19-21 June 2018, Blantyre, Malawi
Zambia Strenthening Climate Resilience (PPCR Phase II) Implementation support mission	Presenter	World Bank (Pilot Programme for Climate Resilience)	Discussions to explore opportunities for collaboration.	World Bank Representatives, PPCR Representatives, WFP R4 representatives	12- 15 June 2018, Lusaka, Zambia
CASU end of project stakeholders meeting	Participant	FAO	Conservation Agriculture Scaling - up	DFID, Government of Zambia line ministries	19 June 2018, Lusaka, Zambia
Staple Crops Processing Zones -A Flagship Program of the Feed Africa Strategy	Presenter	WFP/ADB	Discussions to explore opportunities for collaboration.	African Development Bank	27 June 2018, Lusaka, Zambia

Annex 2: Rural Resilience Event Series

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Strategic Evaluation of WFP's Support to Enhanced Resilience - Learning Workshop	Presenter of Zambia experience	WFP - Office of Evaluation	Discussion to develop a shared understanding of the key issues emerging from the findings to inform WFP's resilience work going forward. Discussion to provide feedback on the proposed recommendations and initiate discussions on their operationalization/management response; and, ensure that the evaluations findings are widely disseminated internally	External stakeholders	26 -28 September 2018, Rome, Italy
Annual Country Report (ACR)- Training of Trainers Workshop	Participant	Performance Management and Monitoring Division (RMP)	The aim of this workshop was to prepare selected people from regional bureaus (RBs) and country offices (COs) to be able to conduct own training in their respective regions/countries, including: familiarise trainers from RBs and COs with the new ACR process and template; present the table of contents and how to complete the sections; assess the comprehensiveness of guidance; and Provide necessary tools and resources	Internal Country offices	24-25 September 2018, Rome ,Italy
GCF Planning Workshop	Participant	UNDP	Consolidation of work plans for strengthening Climate Resilience of Agricultural Livelihoods in Agro-Ecological Regions I & II in Zambia	Ministry of Agriculture , UNDP, FAO	22 and 27 November 2018, Livingstone, Zambia
PARM Knowledge Sharing and Learning Workshop	Presenter of the R4 model	Platform for Agricultural Risk Management (PARM)	Sharing and Learning Workshop on "Building capacities to empower farmers to manage risks at farm level: lessons from experience"	PARM, MoA, AGRINATURA, FAO, WorldBank, COMESA, CARGIL, Heifer International, EU, CABI, SPGRC	12 December 2018, Cresta Golf View Hotel, Lusaka, Zambia
5th Meeting of PARM Advisory Committee	Participant	Platform for Agricultural Risk Management (PARM)	The main objective of the meeting was to follow-up on the actions agreed during the last AC for the year 2018 and capitalize from the lessons learned from PARM first four years of implementation to improve the role of the AC in view of PARM Horizon 2 (2019-2024)	PARM, NEPAD, AGRINATURA, FAO, WorldBank, COMESA, CARGIL, Heifer International, EU, CABI, SPGRC	13 December 2018, Lusaka, Zambia

Annex 3: R4 Achievements

Ethiopia	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Participants	200	1,300	13,000	19,407	20,465	24,143	28,577	29,127	31,942	29,300
Value of premiums	US$2,500	US$27,000	US$215,000	US$265,686	US$282,169	US$253,687	US$275,557	US$420,929	US$372,285	US$354,649
Sum insured	US$10,200	US$73,000	US$940,000	US$1,343,820	US$1,238,567	US$1,294,699	US$1,501,098	US$2,508,437	US$2,307,808	US$2,139,979
Payouts	-	-	US$17,000	US$318,911	US$27,138	US$34,187	US$364,094	US$3,529	US$88,014	US$7,576

Senegal	2014	2015	2016	2017	2018
Participants	1,989	3,621	7,563	6,739	9,245
Value of premiums	US$29,823	US$70,975	US$221,497	US$239,743	US$305,062
Sum insured	US$200,776	US$592,888	US$1,625,696	US$1,752,115	US$2,404,465
Payouts	US$3,929	US$80,969	US$73,186	US$264,145	US$2,197

Malawi	2015	2016	2017	2018
Participants	500	2,342	10,327	36,969
Value of premiums	US$5,351	US$41,864	US$191,582	US$685,105
Sum insured	US$39,285	US$281,290	US$994,061	US$3,806,479
Payouts	US$3,341	-	US$404,599	-

Zambia	2015	2016	2017	2018
Participants	499	2,835	3,835	7,821
Value of premiums	US$9,568	US$85,996	US$114,743	US$130,677
Sum insured	US$77,158	US$508,799	US$723,970	US$769,562
Payouts	-	-	US$175,025	-

Kenya	2017	2018
Participants	5,715	9,485
Value of premiums	US$155,430	US$211,968
Sum insured	US$826,481	US$1,127,489
Payouts	US$631,772	-

Zimbabwe	2018
Participants	500*
Value of premiums	US$7,795
Sum insured	US$50,000
Payouts	-

* Four farmers dropped out after insurance registration

Annex 4: Media Citations and Resources

In the News

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"Disaster Risk Reduction can protect smallholder farmers, experts say"

"How savings group is transforming the lives of smallholder farmers in Zambia"

'Crop insurance eases burden on farmers in southern Kenya''

''From modest savings, an entrepreneurial spirit''

''New Climate Data Transforms Insurance Projects in Africa''

''WFP Mobilizes Grant From The Green Climate Fund To Protect Farmers From Climate Change''

''Is insurance a climate cure-all? It's complicated.''

''How To Dodge A Drought''

"Putting the missing "p" in public-private-partnerships: Lessons from the R4 Rural Resilience Initiative"

"Dear G7 Leaders: Insurance is hardly enough. Trust us, we know from experience"

"Ethiopian Farmers Get a Payout, Easing Effects of Drought"

"With Insurance, Loans, and Confidence, This Ethiopian Farmer Builds Her Resilience"

"In Northern Ethiopia, Weather Insurance Offers a Buffer Against Drought "

"Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought "

"Medhin Reda's Best Asset Is Her Own Hard Work"

"Gebru Kahsay Relies on Rain But Has the Security of Insurance"

"Selas Samson Biru Faces Uncertainty with the Seasons"

Videos/multimedia

The R4 Rural Resilience Initiative in Senegal

Africa's Last Famine, a documentary co-produced by Oxfam America and Link TV, featuring HARITA

R4: The Rural Resilience Initiative

A Tiny Seed and a Big Idea

A New Tool for Tackling Poverty

Photography

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

Partner Reports

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

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Annex 5: R4 Partners and Institutional Roles

Our local/national partners in Ethiopia

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

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.
- ***BAMTAARE.*** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Tambacounda.
- ***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.
- ***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.
- ***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.
- ***PASA.*** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kongehuel.

- **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.
- ***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.
- **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.
- ***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.
- **SEN RE.** Senegalese reinsurance company.
- **Swiss Re.** A leading wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer.

Our local/national partners in Malawi

- **CUMO Microfinance**. A well-established microfinance institution in Malawi with the widest rural outreach which seeks to improve low income entrepreneurs with access to sustainable and integrated financial services to unlock their potential. Responsible for the delivery of the risk reserves and saving components of R4 and provides operational support on insurance.
- **Department of Climate Change and Meteorological Services (DCCMS)**. Mandated to provide reliable, responsive and high quality weather and climate services to meet national, regional and international obligations through timely dissemination of accurate and up to-date data and information for socio-economic development.
- **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.
- **District Councils.** Local government administrative authorities 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.
- **Foundation for Irrigation and Sustainable Development (FISD).** With expertise in irrigation and water development, FISD supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.
- **Insurance Association of Malawi.** An association of technical experts in the insurance. Approver of insurance products and manages insurance risk in the insurance market.
- **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.
- **United Purpose (UP).** 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.
- **World Vision Malawi.** Implementing relief, development and advocacy interventions in Malawi since 1982, World Vision operates in all 28 districts. They support 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.
- **Mayfair Insurance Company Zambia.** A General Insurance company registered and licensed by the Pensions and Insurance Authority of Zambia and underwriter of the index-based insurance products for R4.
- **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.
- **Zambia Meteorological Department (ZMD).** The primary provider of meteorological services in Zambia, ZMD has offices in every Provincial capital and some districts, and is responsible for providing weather and climate information to the public and various sectors of the economy. It is also the custodian of the official records of Zambian Weather and Climate, and collaborates with R4 on seasonal monitoring processes.

Our local/national partners in Kenya

- **Catholic Diocese of Kitui.** Caritas works with sixteen partners across a wide portfolio of projects in water, food security, livelihoods and disaster risk reduction, justice and peace, environmental management, promotion of renewable energy and alternative income generation. A key implementing partner of R4, Caritas focuses on awareness raising and mobilisation, subscribing to the insurance policy on behalf of the participants, seasonal monitoring and claims settlement/communications in addition to its engagement in asset creation together with NDMA and county government.
- **CIC Insurance.** CIC group has for more than three decades experience of providing flexible and innovative insurance and financial services in Kenya. It was the sole insurance provider for R4 Kenya during the 2017 Long Rains, and is part of the Pool that provides current coverage.
- **County Government of Kitui**. In collaboration with NDMA, county government officers play a vital contributory role in index design, community sensitization, seasonal monitoring and provision of extension services.
- **Kenya Agriculture Insurance Pool.** Composed of seven insurers, the Pool underwrites risks in the name and for the account of all members and has the purpose of sharing the underwritten risk between all members. R4 has engaged with the Pool through its lead insurer, APA Insurance, to provide insurance coverage under the Kenya Agriculture Insurance Program for the 2017 Short Rains.
- **Ministry of Agriculture, Livestock and Fisheries (MoALF).** Through interventions such as R4, WFP is committed in its support and engagement with the MoALF to improve the livelihood of Kenyans and ensure food security through creation of an enabling environment and ensuring sustainable natural resource management.
- **National Drought Management Authority (NDMA).** An agency of the Government of Kenya, NDMA is mandated to establish mechanisms which ensure that drought does not result in emergencies and that the impacts of climate change are sufficiently mitigated. It is WFP's principal partner at the national level, which coordinates asset creation activities through a County Drought Coordinator and Asset Creation Coordinator in each county in which WFP support asset creation.
- **Pula Advisors.** Pula Advisors offer services in eight countries across Africa and Asia, and in 2016 alone, facilitated crop and livestock insurance cover to 400,000 farmers in Kenya, Rwanda, Uganda, Nigeria, Ethiopia and Malawi. As R4 Kenya's technical service partner, Pula provides technical support in index design, reinsurance/insurance arrangements, capacity strengthening, seasonal monitoring and crop sampling.

Our local/national partners in Zimbabwe

- **Aquaculture Zimbabwe (AQZ).** Aquaculture Zimbabwe is a local NGO with several years of experience across the country in livelihoods and asset creation projects. AQZ is the key partner for R4 on asset creation activities, focusing on the construction/rehabilitation of weirs/dams, watershed management and soil and water conservation, establishment of fishponds, and income generating activities.
- **Old Mutual Insurance Company Private Limited (OMICO).** Old Mutual Limited is an African financial services group that offers a broad spectrum of financial solutions to customers across key markets in 17 countries. OMICO is the sole insurance provider for R4 in Zimbabwe, covering target food insecure communities with weather index insurance.
- **Blue Marble Microinsurance.** Blue Marble Microinsurance is a UK-incorporated startup with a mission of providing socially impactful, commercially viable insurance protection to the underserved. Blue Marble incubates and implements microinsurance ventures that support the economic advancement of underserved populations, working in collaboration with local partners, such as Old Mutual in Zimbabwe. Its unique business model brings together nine multinational insurance entities, including Africa-based Old Mutual Limited, that provide governance, talent and risk capacity.
- **The Netherlands Development Organisation (SNV).** In Zimbabwe, SNV provides market-based, sustainable solutions in Agriculture, Energy and Water, Sanitation & Hygiene, paying particular attention to gender equity, opportunities for youth and climate change. Within the R4 Initiative, SNV is the leading actor in the establishment of Village Savings and Lending (VSL) groups, financial education for insurance, and fostering access to markets.
- **International Centre for Maize and Wheat Improvement (CIMMYT).** CIMMYT is the global leader in publicly-funded maize and wheat research and related farming systems, with headquarters near Mexico City. CIMMYT is one of the founding and lead centers of the worldwide CGIAR partnership. In Zimbabwe, CIMMYT has operated since 1985 and has established extensive partnerships with national agriculture research and extension partners. Under the R4 project, CIMMYT in collaboration with AGRITEX, is implementing the appropriate seeds and agricultural practices component, establishing demo plots with drought tolerant maize varieties and other drought-tolerant crops, and promoting mechanised conservation agriculture practices.
- **Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement (MLAWCRR).** One of the key ministries in the Zimbabwean Government, the MLAWCRR collaborates with WFP and the R4 initiative through several departments. **The Department of Agricultural Technical and Extension services (Agritex)**, supports project implementation at the local level, providing agronomical support to R4 participants for increased crop and livestock production. The ***Climate Change Management Department*** plays an oversight role on the climate change governance architecture and programming in Zimbabwe in line with the country's National Climate Policy provisions. The ***Meteorological Service Department*** provides support on weather and climate information for farmers in the project areas, delivering rainfall and weather information (including daily, 10 days and seasonal forecasts) and installing meteorological equipment, which will become part of the national grid. In case of extreme weather events the department also provides advisories and warnings.

WFP Enumerator planning for the household survey with a community member in Masvingo Ward 17, Zimbabwe.
WFP/Lorenzo Bosi

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

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