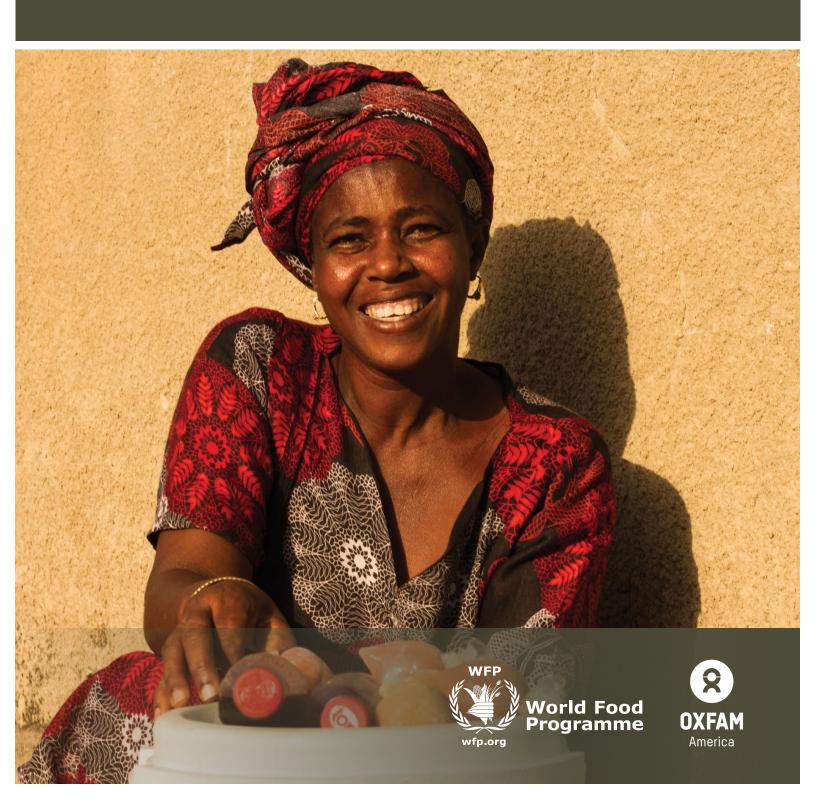
R4 Rural Resilience Initiative

QUARTERLY REPORT | JANUARY - MARCH 2017



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EXECUTIVE SUMMARY

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

This quarter marks the introduction of R4 in the semi-arid lands of Kenya. A dry run for the 2016 short rain season in five- sub counties of Kitui that tested different index insurance contracts was concluded this quarter. For the 2017, long rain season key implementation processes are being carried out to expand this approach to 963 asset creation participants.



During this quarter, the registration of participants started in Ethiopia and Zambia, while preparatory activities for the implementation of R4 have taken place in Senegal, Malawi and Kenya. This report presents the end of season assessment in Senegal, which triggered small payouts of US\$ 69,039 for 1,896 participants for the 2016 agricultural season.

A "self-assessment and lessons learned workshop" was organized by the Swiss Agency for Development and Cooperation (SDC), currently the major R4 donor, from $1^{st} - 3^{rd}$ February 2017 in

Farmer in a workshop in TA Ngwelero, Zomba district, Malawi. *WFP/Mathieu Dubreuil*

Lusaka. The three-day workshop provided an opportunity to reflect on R4 operations in Zambia and Malawi, drawing lessons on what has worked and what has not to inform programmatic decisions for both countries for phase II and provide insights for Zimbabwe as the country plans to roll out R4 in 2017. The workshop convened Oxfam America, WFP global and country teams from Malawi, Zambia and Zimbabwe along with respective WFP's Regional Bureau representatives, SDC, Government representatives, and major implementing partners from Malawi and Zambia.

The Oxfam team commissioned a study carried out by Accenture Development Practitioners (ADP) to help identify growth opportunities in Ethiopia. ADP is currently working on the report which when finalized will feed into the strategic plan of Ethiopia.

In **Ethiopia** a total of 17,025 farmers (4,767 women) have enrolled so far in Tigray.

In **Senegal**, R4 will continue to be implemented in the 3 regions of Tambacounda, Kolda and Kaffrine.

In **Malawi**, the country team focused on continued monitoring of activities, planning and on regrouping Village Savings and Loans groups (VSLs) to start a new saving season.

In **Zambia**, land preparation activities were completed by 2,835 participants (1,402 women) using Conservation Agriculture (CA) techniques.

In **Kenya**, R4 has been rolled out in Kutui Rural Sub-County, with 963 farmers who signed up for the Insurance for Assets scheme.

Figure 1. R4 achievements

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

Our vision: 500,000 insured farmers in 2020.

STATUS SUMMARY

ETHIOPIA

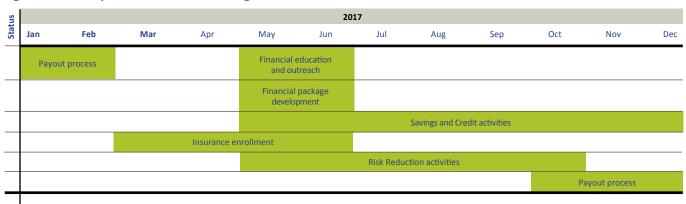
In 2017, R4 continues implementation in 81 villages in Tigray and 5 villages in Amhara regions. The hybrid indexes introduced in 2016 (using ARC 2 and EVI datasets) with a 50/70 sum insured split have been maintained in 2017 taking into consideration the improvements shown in triggering payout in 2016 in Tigray region. In Amhara, ARC2 indexes with the 60/60 split are used as in 2016.

During the reporting period, a total of 17,025 farmers (28 percent women) have enrolled in 81 villages in Tigray region. Of these, 476 farmers paid fully in cash while the rest purchased the insurance product by contributing 16 percent in cash. DRR activities have been identified and will be implemented after the end of the registration process.

In Amhara, mobilization and awareness-raising activities on the insurance product took place in five villages namely Michael Debir, Berkutae, ShochTehara, TaraGedam and Ginza in Libokemekem to allow insurance rollout to take place in April.

Between January and March, a total of US\$ 170,597 of loans (ETB 3,883,633) was repaid by 1,843 farmers who took loans from the revolving funds for income generating activities. 2,845 farmers saved USD 21,543 (ETB 490,415) in their saving groups and USD 58,563 (ETB 1,333,175) in their saving accounts in their Rural Credit and Saving Cooperatives. In this quarter 169 additional farmers started saving in groups which brings the total participants to 3,014 participants (1,088 women) saving in 144 VESAs.

Figure 2. R4 Ethiopia timeline for the 2017agricultural season



SENEGAL

In the first quarter of 2017, R4 Senegal prepared for the fifth year of implementation of the Initiative. In 2017, R4 will continue implementation in the three regions of Tambacounda, Kolda and Kaffrine. In Tambacounda, R4 will be implemented in nine communes this year and will target 5,000 participants with the risk reduction component, of which 4,500 with Insurance for Assets (IFA). In Kolda, R4 will target the same 1,800 participants for the FFA activities as in 2016 and 1,000 for IFA. In Kaffrine, the partnership with the PASA Loumakaf project will allow R4 to continue support to farmers with the provision of seeds and fertilizers and to provide insurance to 200 farmers.

In January, the R4 staff, the resilience unit of WFP West Africa Regional Bureau and the R4 Tambacounda team carried out a training of trainers and a community-based participatory planning (CBPP)¹ exercise in the village of Boussra and neighboring villages, in the Tambacounda region. The CBPP training involved a pool of future trainers including representatives from local government, decentralized technical services, implementing partners, other UN programs and NGOs.

In March 2017, a further CBPP exercise was performed in the village of Kouthiacoto in Tambacounda with the environment directorate of the Ministry of Environment and the Executive secretariat for Food Security. The objective is to support communities in identifying priority interventions for 2017 to increase the resilience of the community and to raise awareness at the national level on WFP's 3PA approach² to resilience programming.

Figure 3. R4 Senegal timeline for the 2017 agricultural season



^{1.} A programme planning tool for communities, governments and partners.

An innovative programming approach, 3PA was developed by WFP in consultation with governments and partners. The aim is to strengthen the design, planning and implementation of programmes in resilience building, productive safety nets, disaster-risk reduction, and preparedness.

MALAWI

Between January and March 2017, Food Assistance for Assets (FFA) activities and cash distribution were performed in Malawi. During distribution, 2,756 people were engaged in nutrition and best farming practices sensitizations through extension workers, radio and text messages supported by the Global Platform for Climate Services (GFCS) program.

The R4 end-of-season monitoring in Balaka is ongoing and will be crucial to calibrate, and validate the index insurance product, and inform payout decisions. This exercise will allow R4 to confirm the index outputs and its accuracy, and suggest possible revisions for the future as relevant.

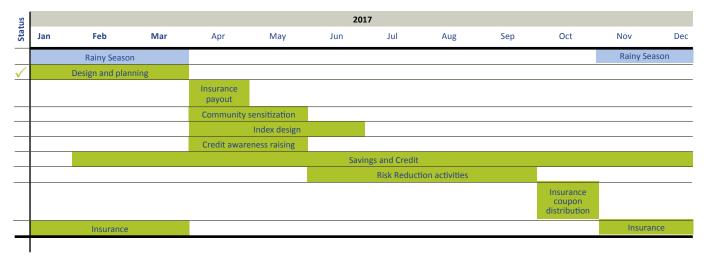
After sharing out in December 2016, 104 saving groups started regrouping and mobilizing resources around end of February to start a new saving cycle for the 2017. Also, VSLs are being considered to form a closer link to the climate services intervention by establishing these groups as radio listening groups to be targeted by the GFCS program.

Two workshops took place in the reporting period:

- R4, GFCS and Integrated Risk Management Program (IRMP)
 Planning workshop that brought together various partners
 and potential partners supporting implementation of activities
 for the three projects in the targeted five districts (Blantyre,
 Chikwawa, Balaka, Zomba and Mangochi) to familiarize them
 with an integrated approach to resilience building and plan
 activities for 2017/2018 season.
- FFA joint planning workshop that saw the participation
 of partners implementing resilience activities. This was
 an opportunity to get to know each other and learn from
 what other districts are doing in the implementation of the
 project. The workshop also highlighted some programmatic
 adjustments to be implemented from June 2017 which
 included reducing the number of working days from 20 to
 12, and the re-introduction of food rations instead of cash
 transfers in some areas.

R4 Phase two will start in July 2017 with expansion to Zomba district. The expansion is funded by SDC as well as the Flemish Government.

Figure 4. R4 Malawi timeline for the 2017 agricultural season



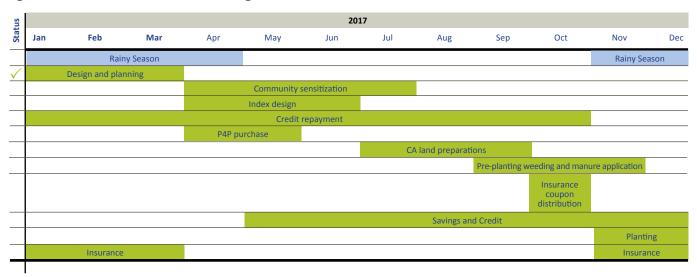
ZAMBIA

During this quarter, 2,835 farmers (49 percent women) successfully enrolled in R4. Through the IFA, they were trained and ripped or dug basins over one hectare of land.

The end of season assessment revealed that the season was generally good with sufficient to above normal rainfall. A total of 469 farmers participated in 55 savings groups. Out of a loan amount of US\$ 5,896 (ZMW 58,965), a total of US\$ 5,648 (ZMW 56,483) was repaid by the savings groups. Cumulative savings has almost doubled from US\$ 5,657 (ZMW 52, 114) last year to US\$ 10,317 (ZMW 95, 035), while average savings for individual members stood at US\$ 188 (ZMW 1,728). The cumulative value of outstanding loans for all the savings groups stands at US\$ 7,720 (ZMW 71, 139).

SDC committed funds for the second phase of the initiative in Zambia (1st July 2017 to 30th June 2021) to scale-up R4, building on the lessons learned from the first phase. During the learning workshop organized at the end of January, R4 team and partners were able to discuss on the performance of the project in the two southern Africa countries to inform programmatic decisions for phase II and provide inputs for Zimbabwe as the country plans to roll out R4 in 2017. Key challenges noted from R4 implementation in Zambia and Malawi include basis risk, local capacity on index design, effective data management tools, financial education, and lack of distribution channels.

Figure 5. R4 Zambia timeline for the 2017 agricultural season



KENYA

In Kenya, a dry run was conducted starting in September 2016 for the short rain season in five sub-counties of Kitui. Technical and operational challenges and key lessons learned during the dry run phase provided a critical input into the strategic planning and design of the implementation phase.

Weather and yield datasets developed during the 2015 feasibility study were further improved with data compiled from other relevant sources such as Kenya Power, NDMA, Ministry of Agriculture, Small and Medium Enterprises, seed companies, and development agencies for the validation and development of index insurance products.

Different index insurance contracts including weather indexbased insurance (WII) and area yield index insurance (AYII) were tested during the dry run. Building on the index design experience in other countries, participatory exercises were conducted to ensure that local communities, partners and WFP personnel could provide input to the prototypes. Moreover, a test exercise was carried out via active participation of communities, partners and WFP personnel in a Whatsapp group to monitor the season – extensive dry spells, plant growth stages and other risks such as pests.

A final assessment of the insurance contracts was conducted based on understanding and satisfaction of farmers and partners on the product and the level of payouts, as well as operational challenges and potential for scale up. Based on this, it was recommended that an AYII be used for further implementation in Kitui.

Since January 2017, R4 has been rolled out on a small scale in Kitui Rural during the 2017 long rain season. In March, 963 participants signed up for insurance against a host of risks including drought. Four drought tolerant crops – millet, sorghum, cow peas and green grams have been covered. This roll out has been carried out in close partnership with NDMA, Ministry of Agriculture, Livestock and Fisheries, county governments, Catholic Diocese of Kitui, Pula Advisors, CIC Insurance, and Munich Re.



ASSESSING THE RISK TRANSFER COMPONENT - 2016 END OF THE SEASON ASSESSMENT IN SENEGAL

This section draws upon the end of season assessment in Senegal, led by the International Research Institute (IRI), which focused on the rainfall performance for the 2016 agricultural season in the regions of Tambacounda, Kolda and Kaffrine. In the R4 sites, the 2016 agricultural season was generally characterized by an average rainfall level during the beginning of the season, whereas below average rainfall during the second window, resulting in payouts of US\$ 69,039 for 1,896 participants. Compared to the 2015 season , 2016 was characterized by an overall better situation in Senegal, which explains the smaller payouts triggered for the second window.

THE INDEX

The 2016 index captures frequent droughts and dry spells and focuses on two drought perils, namely (i) weak or late onset of rainfall, impacting sowing, and establishment of long cycle crops, and (ii) weak or early end of rainfall, which impacts flowering and filling of all crops.

The index is composed of two windows, one early in the season that reflects the sowing time, and a second one that corresponds to the flowering time. In addition, the index is calibrated to have a meaningful payout triggered for the worst year out of five years in the historical dataset (33 years).

The index is adjusted following the local agricultural calendars and rainfall amounts in each cluster of villages. Its start and end have been set through discussions with farmers in each village. In the R4 region, the early window starts on dekad 18 (21st June) and ends on dekad 21 (31th July), while the late window starts on dekad 26 (11th September) and ends on dekad 29 (20th October), in accordance with the sowing periods for crops during late June and mid-July. Usually, the first rainfall event takes place around the end of the month of June, which is covered by the early window. The index, together with sources on the ground, indicated that the rainfall in the June-July window was average, and therefore it did not trigger payouts.

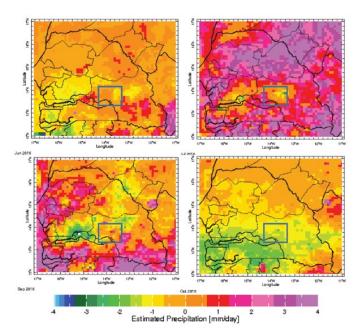
R4 participant weeds in the community vegetable garden in Kolda, Senegal.

Oxfam America/Chris Hufstader

For the second window, the ARC2 index results are also validated with satellite vegetation products namely EVI³ and NDVI,⁴ which provide a measure of "greenness" useful in monitoring vegetation. The EVI and NDVI integrate another layer of analysis for index validation, even though they are more useful at the end of the season rather than at the beginning since there is a time laps between the occurrence of rain and the growth of vegetation (hence the "greenness" captured by the satellite). Indeed, the overall brown soil in June caused by the lack of vegetation does not allow to adequately capture the first rains. Instead, a lack of rainfall at the end of the season causes a wilting of the vegetation that is easier to interpret.

As figure 6 shows, the index recorded an early cessation of rainfall for the late window, which resulted in payouts of US\$ 69,039 (CFA 42,707,246) for 1,896 subscribers. The assessment was in accordance with the feedback recorded by farmers as well as other sources on the ground, indicating that the product performed well. To assess the rainfall season, IRI compared ARC2 satellite data with rain gauge data available on the ground. Even though the two products measure different things - as the former estimates rainfall and the latter the observed rainfall - the comparison makes it possible to check if similar rainfall events have been recorded. Furthermore, the results of the index were compared with other sources including reports from FEWSNET, ISRA, TAMSAT, which all reflected and confirmed the findings of the product.

Figure 6. Senegal rainfall anomalies for June, July, September, and October using ARC2 data and anomalies calculated using data from 1993-2016



^{3.} Enhanced Vegetation Index.

^{4.} Normalized difference vegetation index.



CONCLUSION

The first quarter of the year marked the introduction of R4 in Kenya, where 963 participants signed up for insurance. Activities in the R4 countries focused on the preparation for the 2017 agricultural season. In Ethiopia and Zambia, registrations of participants started. In Senegal, the end-of season assessment

showed that for the R4's areas in the country, the 2016 agricultural season was generally characterized by an average rainfall level during the beginning of the season, whereas below average rainfall characterized the second window, resulting in payouts of US\$ 69,039 for 1,896 participants.

Farmers sign up for insurance in Kitui Rural, Kenya WFP/Jyothi Bylappa

APPENDIX I: METRICS FROM THE FIELD

ETHIOPIA



Risk Transfer





Prudent Risk Taking and Risk Reserves

- 17,025 farmers (4,767 women) enrolled in 81 villages in Tigray region;
- 476 farmers paid fully in cash while the rest purchased the insurance 20 percent in cash.
- A total of 1,843 farmers repaid loans worth US\$ USD 170,597 (ETB 3,883,633);
- 3,014 participants (1,088 FHHs) saved US\$ 21,543 (ETB 490,415) in 144 VESAs;
- 2,845 farmers saved a total of US\$ 58,563 (ETB 1,333,175.00) in RUSACCOs;
- 965 famers (306 women) repaid their loans to their saving groups.

SENEGAL



Risk Reduction



Risk Transfer

- 5,000 participants enrolled in FFA activities (50 percent women);
- Two fencing for two ha of vegetable plots created;
- · Four wells built;
- Seeds (400 g of red onion, 400 g of hybrid cabbage, 800 g of tomato xina, 1 100 g of goana pepper, 300 g of lettuce and
 5.5 kg of okra) distributed at the gardening sites.
- 90 farmers (73 women) participated in a training on nursery set-up techniques;
- 145 farmers (113 women) trained on compost technology.
- 965 famers (306 women) repaid their loans to their saving groups.



Risk Reduction

- 43 communal gardens established;
- 6 shallow wells constructed by 165 participants (124 women);
- 96 heaps of bokash manure made in GVH Mtumbwe and Pongolani for communal gardens use;
- 43 communal gardens established;
- 66,862 meters of vetiver hedgerow planted in marker ridges;
- 4,315 meters (one ha conserved) of gullies reclaimed by making check dams to control soil erosion;
- 4555 meters of swales reconstructed:
- 19 vetiver nurseries measuring 20 m by 25 m each established three vetiver nurseries pruned 1,902 heaps of compost manure made;
- 252,591 seedlings (36,210 fruit tree seedlings and 216,381 indigenous tree seedlings) transplanted from nurseries;
- 350 tree seedlings planted;
- Two fish ponds constructed in Jere village (GVH Silika) and in Chikamana village (GVH Kachenga);
- 40,000 fingerings distributed;
- 23.8 km of roads rehabilitated.



Risk Reserves

- 20 VSL groups trained on by-laws adherence;
- 3,050 passbooks procured and distributed to all 108 groups.



Prudent Risk Taking

- US\$ 150 (MKW 109, 000) of US\$ 944 (MKW 685,500)
 loan accessed last quarter was repaid by 15 farmers;
- A group of (6 members) applied for loans of US\$ 268,121 (MWK 195,000);
- A group of 9 members applied for loans of US\$ 333 (MWK 240,000).



Risk Transfer

- 2,342 farmers insured (71 percent women);
- Total premium US\$ 41,864 (MWK 30,183,944);
- Total sum insured of US\$ 281,289 (MWK 202,809,753).

ZAMBIA



Risk Reduction



Risk Reserves

- 2,835 farmers (1,402 women) planted maize, applied hand weeding, basal dressing fertilizer and pesticides;
- 1,384 farmers planted cowpeas.

- Cumulative value of savings amounts to US\$ 10,317 (ZMW 39,416);
- 1,077 farmers participate in savings groups;
- 406 loans outstanding.



Risk Transfer



Prudent Risk Taking

- 140 farmers trained on conservation agriculture;
- 2,835 farmers enrolled in IFA.

- A total amount of US\$ 5,648 (ZMW 56,483) repaid by all the savings groups;
- Cumulative value of outstanding loans of US\$ 7,720 (ZMW 71,139).

APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Regional work shop on risk Transfer ARC and REPLICA.	Yacine FALL (WFP) participant	African Risk Capacity (ARC)	The process by which countries choose their risk transfer parameters. Objective is also to understand what are the considerations which matter to governments.	ARC Team, West African Government officials, and stakeholders.	Dakar, 26 - 27 January 2017
Self-assessment and lessons learned workshop.	Global OA and WFP team, Zambia, Malawi and Zimbabwe country offices.	SDC	Review R4 phase I and plan implementation of activities for phase II.	SDC, Oxfarm America, R4 HQ team, Country Offices (Malawi, Zimbabwa, Zambia) and R4 partners.	Lusaka, 30 January – 3 February 2017
FFA Planning Workshop.	WFP country team	WFP	Planning workshop for implementation of FFA activities, bringing together partners implementing resilience activities to jointly plan as other districts also rolls out the Integrated Risk Management Programme.	WFP Resilience team, Government and NGO Partners.	Liwonde, 23 - 27 February 2017
International conference on climate services (ICCS 5).	Yacine FALL (WFP) presenter	Climate Service Center Germany (GERICS) and the local partner University of Cape Town (UCT).	Present the lessons learned about the R4 pilot on climate services.	Government officials, academia and stakeholders on climate services around the world.	Cape Town, 28 February to 2 March 2017
East and Southern African Sustainability Summit.	Allan Mulando(WFP) participant	The Indaba Agricultural Policy Research Institute, Vuna and The DST-NRF Center of Excellence .	Presentation on use of climate services information for weather index product desgin.	Government officials, Private sector, NGOS, academic and development partners.	Lusaka, 16- 17 March 2017
Regional work shop on data collection and how to conduct focus Group.	Malick (OA) participant	OXFAM	SFC Capitalisation	Sala Dia MEL and Quality	Tambacounda, March 2017
R4, GFCS and Integrated Risk Management Programme (IRMP) Planning workshop.	Daniel Longhurst, Hussein Madih, Dominic Nyirongo & Patricia Mikuti.	WFP	Present R4 and Integrated approach to resilience to partners and plan activities for 2017/2018 season.	Government officials and implementers of R4.	Balaka, 30 - 31 March 2017

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

OUR LOCAL/NATIONAL PARTNERS IN SENEGAL

Agence Nationale de Conseil Agricole et Rural (ANCAR)
 National Agency for Rural and Agricultural Assistance.
 Technical agency affiliated with the Ministry of Agriculture. In Koussanar, it is responsible for leading community awareness and mobilization activities, and providing seeds as well as technical advice to farmers. Like PAPIL and INP (listed below), ANCAR is a key partner for the Risk Reduction component.

- Agence Nationale pour l'Aviation Civile et de la Météorologie (ANACIM) - National Meteorological and Civil Aviation Agency. ANACIM helps with the design of insurance product(s) by providing historical and current climate data, and installing and maintaining weather stations.
- 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.
- Ignitia. Ignitia is a high-technology company and social enterprise that has recently developed the world's first highly accurate tropical weather forecast model. They partner with R4 in providing farmers with climate services in Tambacounda.
- 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.
- Manobi. Manobi is a Senegalese company specialized in integrated geographical information systems and web-mobile convergence. Manobi will provide R4 farmers with climate services in the region of Kolda.
- 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 microinsurance 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.
- Université Gaston Berger de Saint Louis (UGB). The second university established in Senegal, specialized in Social Sciences, Economics and Business Management, Political Science and Applied Science. UGB provides the enumerators for FERDI's Risk Transfer studies.

OUR LOCAL/NATIONAL PARTNERS IN MALAWI

- Balaka District Council. The local government administrative authority responsible for the implementation of FFA in the district, which includes activities like community mobilization and training, distribution of project inputs, supervision and monitoring, as well as liaising with other relevant District authorities.
- Concern Universal (CU). Long term presence in the country with a strong community-oriented approach, and experience in agriculture and savings projects. Supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.
- CUMO Microfinance. A well-established microfinance institution in Malawi with the widest rural outreach which seeks to improve low income entrepreneurs with access to sustainable and integrated financial services to unlock their potential. Responsible for the delivery of the risk reserves and saving components of R4 and provides operational support on insurance.
- Department of Disaster Management Affairs (DoDMA). An
 institution mandated to plan, coordinate and monitor disaster
 risk reduction, preparedness and response activity in country.
 Provides overall strategic oversight and guidance for R4 in
 Malawi and supports R4 implementation and coordination
 through its local structures.

- Insurance Association of Malawi. An association of technical experts in the insurance. Approver of insurance products and manages insurance risk in the insurance market.
- Malawi Meteorological Department. Responsible for climate change assessments, weather forecast, early warning information and works in collaboration with DoDMA and MOA in the dissemination of early warnings to the people of Malawi.
- Ministry of Agriculture (MOA). Responsible for agriculture policies and programs at national and local level. It supports provision of extension services in the R4 project areas.
- Ministry of Finance Economic Planning and Development (MoFEP&D). Oversees the National Social Support Policy that governs the establishment of sub-programs including Social Cash Transfer Scheme (SCTS), Public Works Programme (PWP), School Meals, Village Savings and Loans (VSL) and Microfinance. Strategic partner to establish technical and operational synergies with existing programs.
- NICO Insurance Company. Main insurance underwriter for index-based insurance products in Malawi.

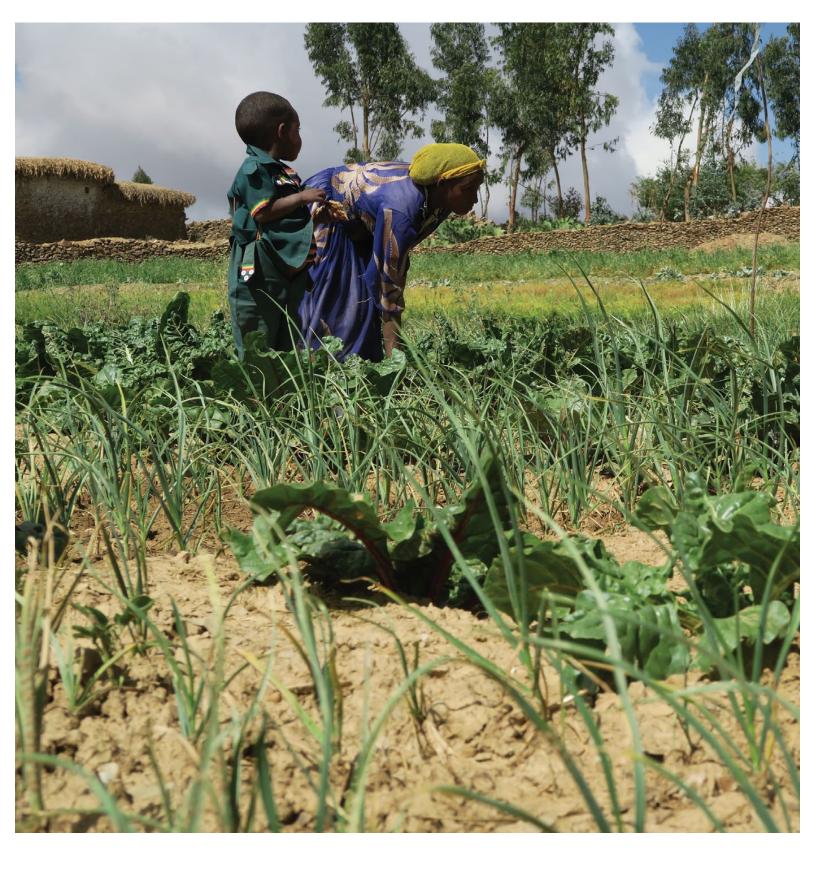
OUR LOCAL/NATIONAL PARTNERS IN ZAMBIA

- Development Aid from People to People (DAPP). Key R4 implementation partner with a strong community-oriented approach, long-lasting presence in the country, and experience in agriculture and savings projects. Ensures collaboration with Food and Agriculture Organization (FAO) and Ministry of Agriculture and Livestock (MAL) implementing the Conservation Agriculture Scaling Up (CASU) program.
- Disaster Management and Mitigation Unit (DMMU). The
 central planning, coordinating and monitoring institution for
 all Disaster prevention, preparedness and response activity
 implementation in the country. Supports R4 implementation
 and coordination at national level through the Disaster
 Management Consultative Forum (DMCF) and at local level
 through the Office of the District Commissioner.
- Food and Agriculture Organisation (FAO). Implements the CASU program together with the Ministry of Agriculture and Livestock (MAL), which aims at increasing crop production and productivity while at the same time ensuring sustainable use of natural resources amongst farmers practicing Conservation Agriculture (CA).
- Ministry of Agriculture and Livestock (MAL). Implements the CASU program together with FAO, and provides extension services to farmers.
- Vision Fund Zambia Limited (VFZ). Zambia's second largest microfinance institution with the widest rural outreach. VFZ offers credit, operational support on insurance and supports financial education trainings as part of R4.

OUR GLOBAL PARTNERS

- Fondation pour les Etudes et la Recherche sur le Développement International (FERDI) Foundation for Studies and Research in International Development.

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



R4 participant and her son in a vegetable garden in Tigray, Ethiopia. WFP/Fabio Bedini

APPENDIX IV: MEDIA CITATIONS AND RESOURCES

IN THE NEWS

- Public Finance International, <u>Can insurance help the poorest</u> cope with extreme weather? (May 2016)
- Diplomatic Courier, <u>Ending Global Hunger Through Private Sector</u>, <u>Civil Society and Government Collaboration</u> (September 2016)
- Le Soleil, <u>Lutte contre la pauvreté : Le projet 4R financé par</u>
 Oxfam et le Pam soulage les ménages (September 2016)
- The Wire, <u>UN Working to Tackle Havoc Wreaked by 'El Nino'</u> and 'La Nina' (July 2016)
- The Huffington Post, Why Climate Matters to Us (July 2016)
- Voanews, <u>World Bank: Natural Disasters Force 26M People into</u>
 <u>Poverty Annually</u> (November 2016)
- Africa Times, <u>Zambia</u>, <u>Malawi farmers develop resilience to climate impacts</u> (October 2016)
- UN Secretary-General's initiative aims to strengthen climate
 resilience of the world's most vulnerable countries and people:
 http://www.un.org/sustainabledevelopment/blog/2015/11/un-secretary-generals-initiative-aims-to-strengthen-climate-resilience-of-the-worlds-most-vulnerable-countries-and-people/
- R4's achievements on gender were illustrated in a case study in the World Bank, IFAD, FAO's report "Gender in Climate Smart Agriculture".
- Climate Change The New Economy (CCTNE), Green Awards, UNFCCC, "G7 Climate Change: The New Economy" (June, 2015).
- Greatrex H, Hansen JW, Garvin S, Diro R, Blakeley S, Le Guen Rao KN, Osgood, DE. 2015. <u>Scaling up index insurance for</u> <u>smallholder farmers: Recent evidence and insights.</u> CCAFS Report No. 14 Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online at: <u>www.ccafs.cgiar.org</u>
- The International Research Institute for Climate and Society.
 Using Satellite Data to Improve Index Insurance (August 2014).
- Zambia: Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, AllAfrica (September 23, 2014) http://allafrica.com/stories/201409231508.html
- Leaders at UN summit take steps to ensure food security for 9 billion people by 2050, Medi For Freedom (September 23, 2014) http://mediaforfreedom.com/readarticle.php?AID=18583
- Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, Insurance NewsNet (September 23, 2014) http://insurancenewsnet.com/oarticle/2014/09/24/innovativeclimate-risk-solution-expands-to-insure-farmers-in-malawi-andzambia-a-559233.html#.VCKMC | uPt
- Innovative Climate-Risk Solution Expands to Insure Farmers In Malawi And Zambia, Thomson Reuters Foundation (September 23, 2014) http://www.trust.org/item/20140923121822-aq1pc/

- Adreinne Klasa and Adam Rober Green, <u>"Africa's catalytic agricultural innovations"</u>, This is Africa (July 30, 2013).
- Becker-Birck, C., Crowe, J., Lee, J., & Jackson, S., <u>"Resilience in Action: Lessons from Public-Private Collaborations Around the World"</u>, (July, 2013).
- World Bank, "Ethiopia Using a social safety net to deliver disaster insurance to the poor: case study", (June, 2013).
- Climate Change The New Economy (CCTNE), The Guardian and United Nations Environment Programme (UNEP), <u>"G8 Climate Change: The New Economy"</u>, (June, 2013).
- United Nations Office for Disaster Risk Reduction (UNISDR), "From Shared Risk to Shared Value –The Business Case for Disaster Risk Reduction. Global Assessment Report on Disaster Risk Reduction" (May, 2013).
- Disaster Risk Financing and Insurance Program (DRFIP), Global Facility for Disaster Reduction and Recovery (GFDRR), "Senegal: Disaster Risk Financing and Insurance Country Note" (November, 2012).
- Agence de Presse Sénégalaise, "Sénégal: Le projet R4
 veut aider les agriculteurs à faire face aux changements
 climatiques", AllAfrica (Nov. 13, 2012).
- Sénégal Humanitaire, "Lancement au Sénégal d'une initiative de résilience rurale", SousLeManguier (Nov. 14, 2012).
- "Sécurité alimentaire: L'assurance agricole pour réduire les risques en zone rurale", Le Soleil (Nov. 14, 2012).
- Stephan Faris, "Seeds for Change", Time (Sept. 24, 2012).
- Lisa Friedman, "Companies Begin to See Necessity and Profits in Adapting to Climate Change", ClimateWire (July 11, 2012).
- Victoria Eastwood, "Insurance Helps Kenya's Herders Protect Against Drought", CNN (June 18, 2012).
- Forum for Agricultural Risk Management in Development (FARMD), "Oxfam & WFP's R4 Initiative Begins Expansion into Senegal, Fueled by Success in Ethiopia", FARMD Member Updates (June 5, 2012).
- David Satterthwaite, "Weather Insurance Builds Resilience for Farmers", Momentum (March 2012).
- Jim French, "Ethiopian Crop Insurance and the Secret Farm Bill", Hutchnews (Dec. 22, 2011). This was also posted by: TreeHugger.com, All Voices: Local to Global News, and the World Food Programme.
- David Bornstein, "News Flash: Progress Happens", The New York Times (Dec. 15, 2011).
- Agnieszka Flak, "Games Wake People Up to Climate Change", Reuters (Dec. 2, 2011).
- Laurie Goering, "Insurance Aims to Help Herders Avoid <u>'Downward Spiral' from Drought</u>", AlertNet (Nov. 30, 2011).
- Lisa Jones Christensen, "Case Study: Swiss Re and Oxfam" Financial Times (Nov. 1, 2011).

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

ACADEMIC JOURNALS AND PUBLICATIONS

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

STORIES/BLOGS

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

"How To Dodge A Drought"

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

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

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

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

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

"Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought"

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

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

"Selas Samson Biru Faces Uncertainty with the Seasons"

VIDEOS/MULTIMEDIA

The R4 Rural Resilience Initiative in Senegal

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

R4: The Rural Resilience Initiative

A Tiny Seed and a Big Idea

A New Tool for Tackling Poverty

PHOTOGRAPHY

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

PARTNER REPORTS

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

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

OTHER REPORTS

- Million Tadesse and Marjorie Victor, "Estimating the Demand for Micro-Insurance in Ethiopia," Oxfam America (2009). A report commissioned by the International Labour Organization and the United Nations Capital Development Fund.
- Woldeab Teshome, Nicole Peterson, Aster Gebrekirstos, and Karthikeyan Muniappan, "Microinsurance Demand Assessment in Adi Ha" (2008). A study commissioned by Oxfam America.
- Nicole Peterson and Conner Mullally, "Index Insurance Games in Adi Ha Village, Tigray Regional State, Ethiopia" (2009). A study commissioned by Oxfam America.
- Nicole Peterson, "Livelihoods, Coping, and Microinsurance in Adi Ha, Tigray, Ethiopia" (2009).
- Tufa Dinku et al., "Designing Index-Based Weather Insurance for Farmers in Adi Ha, Ethiopia," IRI (2009). Report to Oxfam America.



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

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

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