

R4 Rural Resilience Initiative

QUARTERLY REPORT | OCTOBER - DECEMBER 2014



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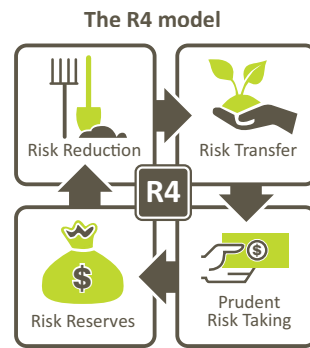
Cover: Boy pouring water for his heifer and calf in Monze District,
Southern Province, Zambia.
WFP / Nick Ophoff.



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 through the project to strengthen farmers' food and income security. The initiative combines improved **resource management** (risk reduction), **insurance** (risk transfer), **microcredit** (prudent risk taking), and **savings** (risk reserves).



In 2014, R4 successfully expanded in Ethiopia and Senegal. During this quarter, the localized dry conditions led to insurance payouts in both Senegal and Ethiopia for a total of \$38,116. The initiative also started operating in Malawi and Zambia supported by a three-year grant provided by the Swiss Agency for Development and Cooperation (SDC).

Farmers during participatory mapping activities in Bahir Dar, Ethiopia.
IRI / Geoffrey McCarney.























In **Ethiopia**, a total of 24,143 participants purchased insurance, of which 95 percent participants enrolled for the Insurance for Assets (IFA) scheme while the remaining five percent purchased insurance fully with cash. During the quarter, the performance of the insurance index was assessed and end-of season-payouts were calculated. A small payout of \$34,187 was distributed to 7,897 farmers at the end of the season.

In **Senegal**, R4 insured a total of 1,989 farmers. All participating farmers bought insurance through the Insurance for Assets (IFA) scheme. During this quarter, assets built under the risk reduction

component were finalized, the performance of the insurance index was assessed and payouts were calculated. A payout of \$3,929 will be distributed in early January 2015.

In **Malawi and Zambia**, the design of R4 is well underway with key partnerships being finalized. Local level planning using the Seasonal Livelihood Programming (SLP) and Community-based Participatory Planning (CBBP) approaches was initiated. Analysis and planning for the design of the weather index insurance product has started.

Figure 1. R4 achievements

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

STATUS SUMMARY

ETHIOPIA

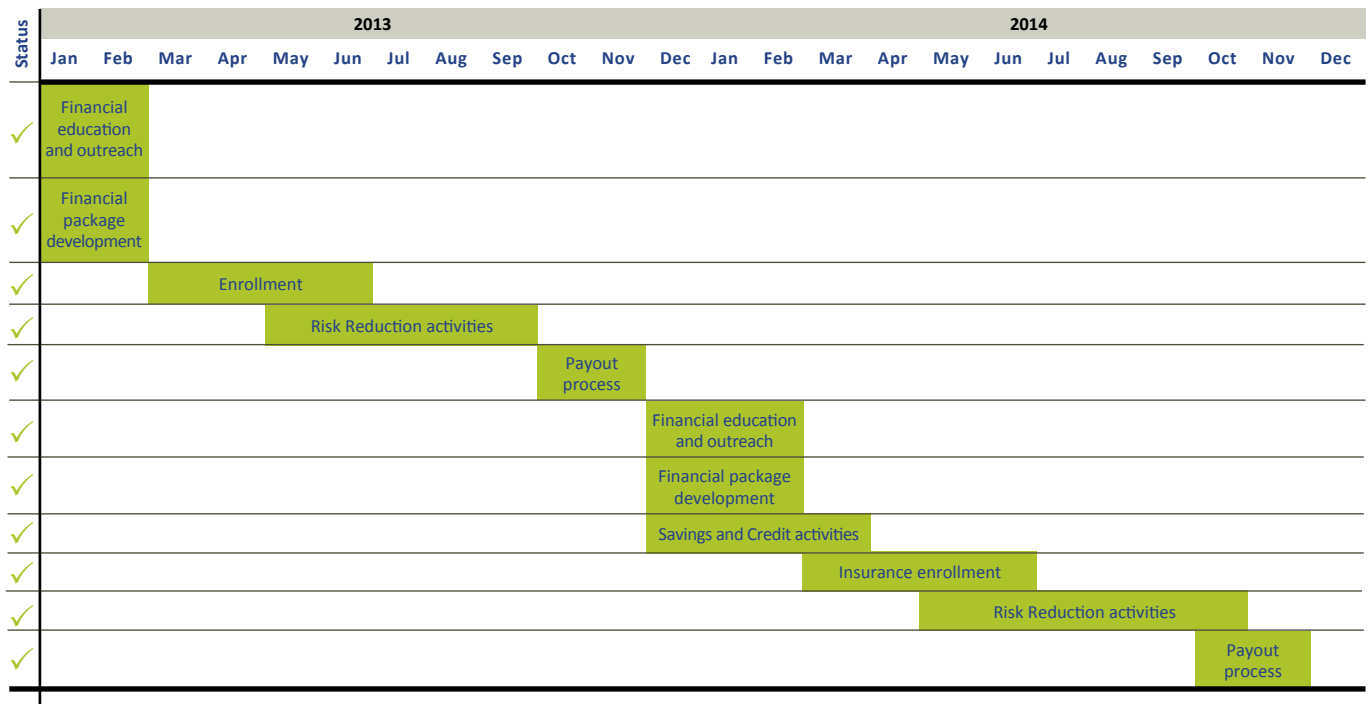
In 2014, R4 Ethiopia reached 24,143 participants, exceeding the planned objective of 22,500 farmers. In Tigray, the program provided insurance coverage to 23,001 farmers, across 81 villages, while in Amhara 1,142 farmers across three villages bought insurance.

Only 5 percent of the participants paid insurance fully in cash, while the vast majority (22,861) benefited from the Insurance for Assets (IFA) scheme, working towards risk reduction assets to

purchase insurance coverage. Of the total number of IFA farmers, 95 percent (21,719) farmers, all from the Tigray region, paid a 15 percent cash contribution to purchase insurance, whereas the remaining 5 percent (1,142), all from the Amhara region, purchased insurance fully with labor.

Based on the results of the agricultural season, a payout of \$34,187 was distributed to 7,897 farmers to compensate farmers from the dry conditions in the region of Tigray.

Figure 2. R4 Ethiopia timeline for the 2014 agricultural season



SENEGAL

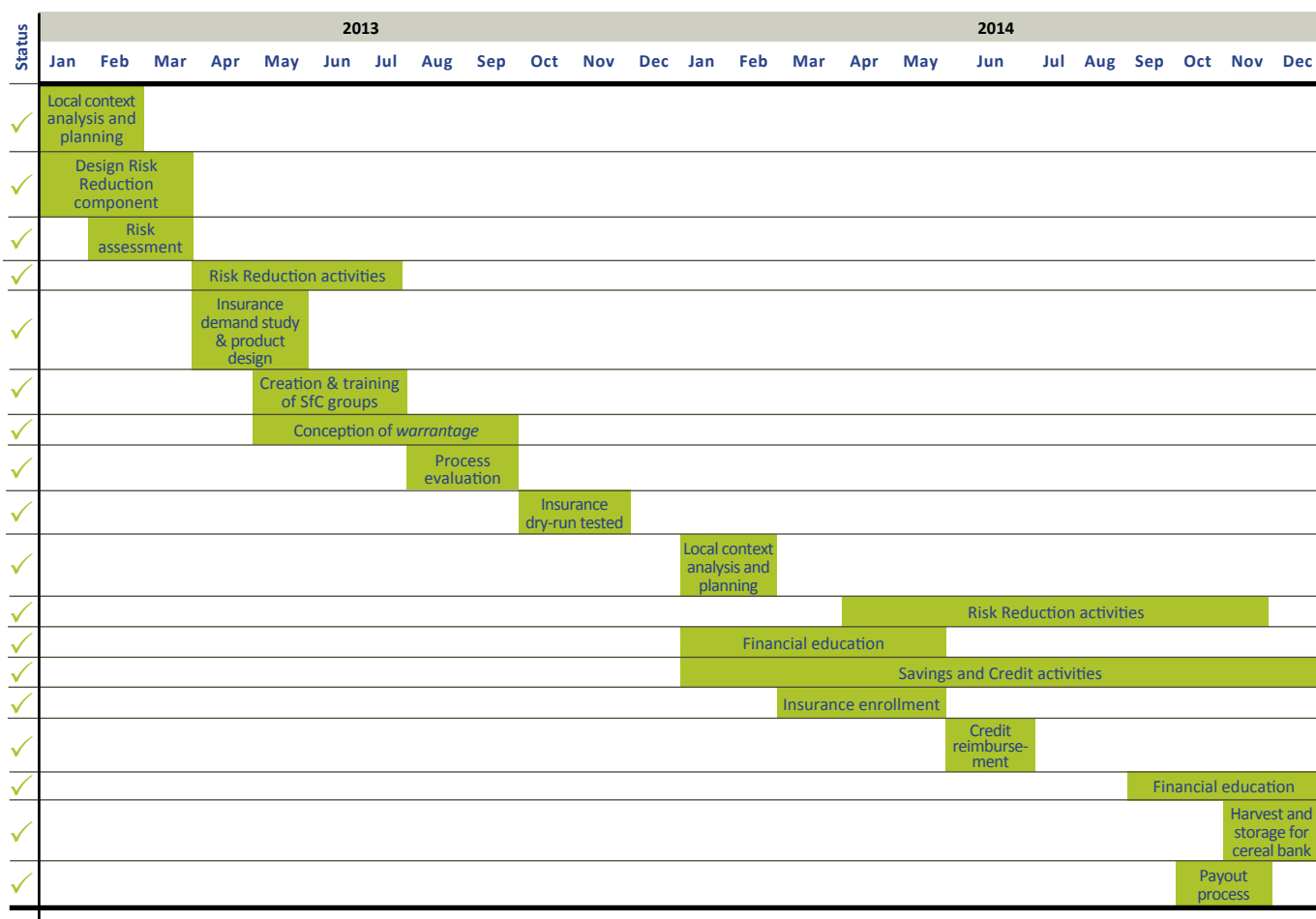
R4 Senegal reached over 6,000 farmers in 2014 across 15 rural communities¹ and two regions - Tambacounda and Kolda. Weather index insurance policies were bought by 1,989 farmers in the region of Tambacounda, all through the Insurance for Assets (IFA) scheme.

During the fourth quarter of 2014, enrolled farmers built water retention structures, such as embankments and small dams, *vetiver*-reinforced stone bunds preventing soil erosion, as well as vegetable gardens to diversify production, and made compost pits as part of R4's risk reduction component.

A process evaluation was carried out during October to assess the rate of completion, quality and relevance of the assets built under the risk reduction component. The evaluation concluded that assets overall respond to community priorities, but could, however, be further customized to the specific challenges and opportunities offered within each cluster.

The area where R4 is being implemented was hit by a slightly dry beginning of the season. As a result, in one cluster, Koundiaw Square, 299 farmers received a small payout totaling \$3,929. The rest of the season seems to have brought normal rainfall amounts, despite deficits in other parts of the country.

Figure 3. R4 Senegal timeline for the 2014 agricultural season



1. The term 'rural communities' refers to 'communautés rurales' in the Senegalese context i.e. groups of villages in limited geographic areas. They vary in size and density, but usually have 20,000–30,000 inhabitants.

MALAWI

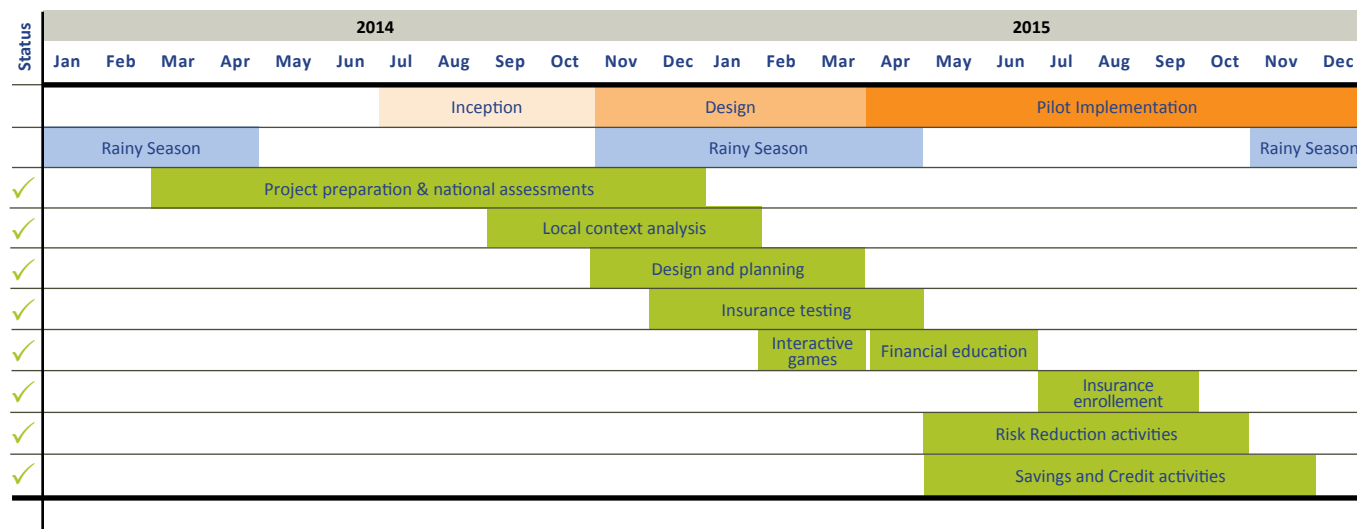
WFP set up the structure for R4 implementation in Balaka. The district is already benefiting from the Food for Assets (FFA) programme, as well as a pilot effort to provide climate services to food insecure farmers, under the Global Framework for Climate Services (GFCS). FFA activities started in December 2014 and will allow R4 to capitalize on existing structures. Partner agreements for implementing the FFA and micro-finance components are being developed along with an implementation plan for the development of a weather index insurance prototype.

ZAMBIA

Between October and December, WFP carried out a broad analysis of stakeholders at the national and local level to identify key implementation partners. Based on current assessments and consultations, it is expected that the R4 project in Zambia will build upon FAO's Conservation Agriculture Scaling Up (CASU) program, currently being implemented in 23 districts. Further assessment and consultations are now underway to refine the design and delivery mechanisms for the R4 components.

In addition, a training-of-trainers for the Country Seasonal Livelihood Programming (SLP) team was conducted including government, civil society and international agencies staff. This team will conduct local level planning using the SLP and Community-Based Participatory Planning (CBPP) tools in the Pemba District. The results of these processes will feed into the design of the different R4 project components.

Figure 4. R4 Malawi and Zambia timeline for the 2014-2015 agricultural season



ACCOMPLISHMENTS THIS QUARTER

METRICS FROM THE FIELD

ETHIOPIA



Risk Reduction

- In Tigray, 260 compost making pits were prepared.
- In Amhara, 40 district experts, (7 women) participated in disaster risk reduction training.

- A payout of \$34,187 (ETB 678,404.99) for 7,897 farmers was announced in 26 villages.
- In Amhara, 34 district experts (5 women) participated in index insurance training.



Risk Transfer

- In Tigray, 800 farmers (80 women) participated to the “training-of-trainers” sessions on index insurance.



Prudent Risk Taking and Risk Reserves

- In Tigray, 340 farmers (143 women) were trained on income generating activities.
- In Amhara, 50 farmers (7 women) were trained on income generating activities, 639 farmers (141 women) borrowed from saving pools, and 554 farmers fully repaid loans from saving groups.

SENEGAL



Risk Reduction

Tambacounda

- The 2 new dams of Sinthiou Maleme and Missirah were completed.
- 74 percent of the small dykes separating rice plots and small dykes encircling the perimeter of the rice plots were completed (23,353 ml out of a target of 31,590 ml). The difference is partly due to the instability of rains and low rainfall this year, with several intervals during which work was not possible due to dry soil.

- 20 stone bunds were completed (*diguettes en cadre*).
- 4 ha, to be used as vegetable gardens, have been rehabilitated (cleaning vegetable perimeter, nursery seed distribution).
- Food distributed in exchange for labor amounted to 261 metric ton reaching 3,601 participants, while food vouchers worth \$104,748 were distributed to 2,181 participants.
- 350 farmers (245 women and 105 men) attended trainings on harvesting techniques and storage products (rice).
- 923 (635 women and 288 men) attended trainings on vegetable production techniques.

Kolda

- 120 ha of rice fields were rehabilitated. Five performance squares to estimate rice production have been set up in the valleys. The average yield obtained is approximately 2.3 MT per ha.
- Vegetable gardening was supported on 13 ha with 72 kg of seeds distributed (tomato, pepper, okra, watermelon, onion and cabbage). This is an income-generating activity that allows women to compensate for this years' low rice production due to lack of water. The intervention began with the repair of fences to keep livestock out, and soil preparation.
- 194 farmers (172 women and 22 men) participated in awareness and training sessions to help women secure their vegetable garden perimeters from livestock roaming. The

sessions also helped mobilize people for the construction of fences, soil preparation and the preparation of nursery beds.

- Five training sessions on crop and tree nurseries were conducted at the Dioulacolon sites (Sare Demba Sy), Bilaly Sare, Sare Bidji (Dianabo), Sare Pathé Kamako and in the rural community of Bagadadji. Activities included support on site selection; and training on planting techniques (planting in line), watering, weeding operations and phytosanitary treatment.
- In the framework of the FFA interventions, 288 MT of food were distributed to 2,000 participants, covering 18,000 beneficiaries. Food vouchers worth \$27,516 were distributed to 1,055 participants.



Risk Transfer

- At the end of the second insurance window, readings from ground weather stations were collected to confirm the outcomes of the index. The index was triggered in one cluster and confirmed by other sources. Insurance partners communicated to farmers the results of the 2014 campaign and insurance compensation.

- 299 farmers in the cluster of Koundiaw Souare will receive \$3,929 in payouts (2,244,302 FCFA).
- Insurance claim settlements were organized for January 2015 with *Compagnie Nationale d'Assurance Agricole du Sénégal* (CNAAS), Planet Guarantee (PG), *La Lumière*, local authorities, and local and national press. Two TV shows reported on the project.



Risk Reserves

- By the end of the quarter, a total of 395 savings groups were active with 9,084 members (7,182 women and 1,902 men) in Tambacounda and Kolda regions. The savings mobilized by these groups since field implementation started in these two regions amount to \$41,026 (21,661,855 CFA). The groups have taken out a total of 3,225 loans amounting to \$37,585 (19,544,200 CFA).
- *La Lumière* supported the establishment of 9 new savings groups associations in both regions.



Prudent Risk Taking

- Four cereal banks were rehabilitated and will start the warrantage scheme in the next quarter.
- 25 people from 5 cereal banks (4 new and 1 from the pilot) received training on inventory management.



R4 RURAL RESILIENCE: END OF SEASON ASSESSMENT IN ETHIOPIA AND SENEGAL

In October 2014, the International Research Institute for Climate and Society (IRI) conducted an analysis of the 2014 agricultural season in Ethiopia and Senegal. This end-of-season assessment analyzes the performance of satellite rainfall estimates comparing them with expert and field data. The assessment has two main purposes: (1) to detect any basis risk, and (2) to inform the design of the 2015 indices.

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.

This section summarizes the results of this analysis and provides information on the payouts in the two countries. It also presents the results of the 'dry-run' conducted in Ethiopia this year to test the performance and reliability of the MODIS (Moderate Resolution Imaging Spectroradiometer) Enhanced Vegetation Index (EVI) in addressing basis risk challenges, following the results of last year's end-of-season assessment.

Insurance games in Kolomba, Senegal. These exercises allow farmers to better understand how index insurance works, and are critical for the design of the insurance product.
IRI / Helen Greatrex.

2014 AGRICULTURAL SEASON IN ETHIOPIA

This year, in Tigray, farmers chose products that covered long cycle crops (maize, wheat, and sorghum). In Amhara, farmers chose to both long cycle crops, such as wheat and maize, as well as teff, a short cycle crop.

- For long cycle crops: participants had the option to purchase insurance cover for both early and late windows, or for the late window only.
- For short cycle crops: participants had the option to purchase insure for the late window only.

The period of the insurance or the *window* coincides with the crop growth period. Early window coverage targets late onset of rains or significant dry spells for long cycle crops that affect the sowing and growth of crops. A late window targets an early end of rains or significant dry spells in the late season, affecting flowering and grain filling for all crops. Each window has a specific index.

The indices are set to have a meaningful payout only about once every four or five years for each window, providing coverage for *bad* years.

Performance of satellite rainfall estimates and payout results

The 2014 season was above average for most of the project areas with a late start reported only in some areas. A late start of the rainfall was reported in Southern Tigray, in Raya Azebo and Alamata districts,² and the early index triggered payouts in all villages in these districts. Similarly, below-normal rainfall at the start of the season and dry spells during the season were reported in Tanqu Abergele district, which was also captured by the early index. Of the 24,133 farmers registered for insurance in 84 villages in the Tigray and Amhara regions, 7,848 farmers in 27 villages received a share of \$34,187 in payouts.

A trigger sets the amount of rainfall below which the insurance contract starts to pay, within a specific time period (window). They are established through the analysis of over 20 years of satellite rainfall estimates and past growing seasons, as well as farmers' planting criteria and local agro-meteorological knowledge.

The late window was not triggered in any of the villages.

This is consistent with rainfall events on the ground. The late season rainfall was reported to be above average in almost all project areas including the eastern zone. Overall, the newly restructured indices are performing much better than the 2013 indices.

In the eastern zone, farmers reported a late start of the season, resulting in some production loss. The ARC2 satellite rainfall estimate also indicated a below-average rainfall at the start of the season. However, the rainfall shortage was not severe enough to trigger a payout.

ARC2 rainfall estimates are based on daily Global Telecommunications System (GTS) rain gauge data, and the Geostationary Operational Environmental Satellite (GOES) precipitation index (GPI) calculated from cloud-top infrared (IR) temperatures on a 3-hourly basis.

Recommendations for the 2015 index design

The 2015 index will be similar to the restructured 2014 index, focusing more on the most severe risks reported by farmers. The 2014 index was able to capture several of the early window droughts that occurred in the southern part of Tigray and triggered a payout.

However, the new index still would not have triggered a payout for years like 2013, which farmers remembered as one of their worst recent droughts.³ The only source of information that provided evidence of the production problem reported by farmers in 2013 was a satellite-derived vegetation index product, which tracked the farmers' loss reports closely.

Based on this finding, improvements are being considered for the indices covering the villages in the eastern zone of Tigray, including the development of a hybrid index based on both rainfall (ARC2) and a vegetation index (MODIS EVI) for late season coverage to reduce potential basis risk.

2. The word "district" here refers to the Ethiopian term woreda. It is approximately equivalent to a district in other countries (Food and Agriculture Organization, 2010).

3. For more information about 2013 and the index restructuring, please see section "R4 Rural Resilience in Ethiopia: End-of-Season Assessment 2013" in the [R4 Quarter Report January – March 2014](#).

EVI-ARC2 Hybrid Late Season Index

Satellite vegetation indices, such as the Enhanced Vegetation Index (EVI) or the Normalized Difference Vegetation Index (NDVI) provide a measure of “greenness” or chlorophyll density. This is useful in monitoring the conditions of vegetation, particularly in rangelands for livestock insurance. So far, R4 has used NDVI and EVI products only to validate whether the rainfall estimates are accurately capturing the worst years. However, the opportunity to integrate EVI into the current index insurance product was tested this year following the lessons learnt in the 2013 season.

The current two-window index based on rainfall (ARC2) provides coverage for the majority of historical farmer loss years. This year’s analysis showed that by adding MODIS EVI to the current ARC2 satellite rainfall estimate, the index would be able to provide payouts for most of the remaining loss years, including 2013. The proposed product based on EVI would be integrated into the late season index and packaged with the current late window contract.

2014 AGRICULTURAL SEASON IN SENEGAL

In 2014, R4 offered insurance to five of the total 15 rural communities covered by the initiative. The insurance product for each cluster was designed based on information collected in one village per cluster called the Index Design Village (IDV), with inputs from members of other villages within the cluster. The same product was then extended to all the villages in the cluster within a radius of a maximum of 3 km from the IDV (although the Koussanar 2013 pilot region covers a wider geographical area).

Farmers had the option to purchase insurance that provides coverage for crops like millet, maize, sorghum and groundnuts. Early index and late index windows were offered to cover drought peril due to weak onset of rainfall and early end of rainfall.

Performance of satellite rainfall estimates and payout results

The assessment of the 2014 agricultural season in R4 villages in Koussanar, Tambacounda, and Koumpentoum areas indicated a slightly dry beginning of the season, resulting in one village receiving a small payout. Of the total 1,989 farmers who purchased insurance, 299 farmers in the village of Koundiaw Souare received a share of \$3,929 in payouts. The rest of the clusters received normal rainfall, a result corroborated by farmers’ reports.

Recommendations for the 2015 index design

For the 2015 index for Tambacounda and the expansion zones in R4 Senegal, the index will follow the design of the previous year, which features two fixed-date windows to capture rainfall deficits at the beginning of the season and at the end of the season. Details of the index will be reviewed with local experts including the level of rainfall cap.

The rainfall cap indicates the maximum amount of rainfall that is counted for each ten-day period. The cap allows to detect dry spells more accurately by taking into consideration runoff water derived from heavy rainfall. This water is in fact not available to crops. Additionally, different windows are being considered for some of the new reference villages to better adhere to current farming practices in these villages.



CONCLUSION

A growing literature on index-based insurance suggests that weather-index insurance has the potential to benefit smallholder farmers at a meaningful scale. To accomplish this goal, the R4 initiative strives to refine and strengthen its index-insurance products based on the experiences and the challenges faced on the ground. The recommendations for Ethiopia and Senegal as presented above will form the basis to improve the products offered to farmers in 2015.

A recent publication by CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and IRI – [“Scaling-up insurance for smallholder farmers: Recent evidence and insights”](#) features R4 as one of the five initiatives that have made significant progress in expanding insurance coverage to people who need it the most.

Recent work also explores how to use satellite technology to improve the performance of index insurance so that these programs can scale-up to cover more farmers. [The IRI and the](#)

[National Aeronautics and Space Administration \(NASA\) have formed a partnership](#) to unleash the potential of satellite imagery in developing context-specific index insurance products in Africa. This partnership includes remote sensing scientists from the United States Department of Agriculture (USDA), the Climate Hazards Group at the University of California Santa Barbara, and the Michigan Tech Research Institute. By partnering with experts in a range of remote sensing technologies such as soil moisture, evapotranspiration, rainfall, and vegetation, IRI aims to examine more closely the strengths of particular datasets in capturing local conditions in regions across Sub-Saharan Africa.

A second research project is being undertaken in Senegal by the Weather Risk Management Facility (WRMF), a joint initiative of WFP and the International Fund for Agricultural Development (IFAD), to compare different methodologies of remote sensing for index insurance for smallholders. Five remote sensing providers, including IRI, will participate in this project. The R4 initiative will significantly benefit from both these research partnerships.

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

APPENDIX I: R4 PARTNERS AND INSTITUTIONAL ROLES

OUR LOCAL/NATIONAL PARTNERS IN ETHIOPIA

- **Africa Insurance Company:** Private insurer in Ethiopia operating in the Tigray, Amhara, and Oromiya regions.
- **Dedebit Credit and Savings Institution (DECSI):** Second-largest microfinance institution (MFI) in Ethiopia with nearly a full 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 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.** Will help with the design of insurance products by providing historical and current climate data, and installing and maintaining weather stations.

- **Centre d'Appui au Développement Local (CADL) - Support Center for Local Development.** A body of the Ministry of Regional Development and of local government, it is responsible for coordinating rural development projects in each rural community. Chairs the R4 Local Technical Committee in Koussanar, and is responsible for the coordination between the various local partners and for the overall coordination of all R4 components on the ground.
- **Union des Institutions Mutualistes d'Épargne et de Crédit (U-IMCEC) - Savings and Credit Cooperatives' Union.** A microfinance institution with an important national coverage, including in the Tambacounda and Kolda regions. In Koussanar, it will be the implementation partner for the risk taking (credit) component.
- **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 will be the insurance provider for the products 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 will be the implementation partner for the Risk Reserves component in Koussanar.
- **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.
- **PlaNNet Guarantee.** Insurance broker specializing in micro-insurance for development and poverty reduction. In Koussanar, it will help CNAAS commercialize R4's insurance products by conducting awareness-raising and marketing activities among clients.
- **Regional Research Centre for the Improvement of Drought Adaptation (CERAAS).** Will help with the design of insurance products by helping create the rainfall index (including by contributing to studies on the use of remote sensing tools), and by carrying out crop monitoring.

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 and Agriculture Organization of the United Nations, International Labour Organization, and the US Agency for International Development.
- **Swiss Re:** Global reinsurer and leader on climate change advocacy with funding and technical expertise.
- **The International Fund for Agricultural Development (IFAD):** A specialized agency of the UN focused on rural poverty reduction, hunger and malnutrition.
- **The International Research Institute for Climate and Society (IRI):** Member of Columbia University's Earth Institute offering research and technical expertise in climate data and weather index design for rural farmers.

APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Disaster Risk Management Training for Government .	Ezimelese Tecleab (WFP), Presenter.	WFP	To build the capacity of Government staff and WFP field staff on DRM policy, priority areas and current projects/activities.	Government institutions and WFP sub-office staff.	Bahirdar, Ethiopia, December 10 - 12, 2014.
Climate Change Negotiations (COP 20).	Richard Choularton (WFP), Presenter.	United Nations Framework Convention on Climate Change.	Within the broader discussion on climate change, WFP discussed the issue of food security and climate resilience in a number of formal and informal forums.	Governments, NGOs, International organizations, civil society representatives.	Lima, Peru, December 1-12, 2014.
Evaluation committee WRMF, Remote Sensing Methodologies.	William Dick (WFP), Presenter, Mathieu Dubreuil, member of evaluation committee.	IFAD / WRMF	To assess the 2 first campaigns that were covered by the RSS study, give feedback on the outcomes of each methodology.	IFAD, VITO, CIRAD, ISRA (SN), CSE (SN), Swiss Re, GILF.	Rome, December 1-2, 2014.
Agricultural Insurance Conference: How can we make it work to contribute to food security?	William Dick (WFP) Panellist.	German Ministry for Economic Cooperation and Development (BMZ), IFC Global Index Insurance Facility (GIIF), and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.	To explore the nexus between agricultural insurance and food security and the ways in which they are linked; To present the opportunities and challenges in mainstreaming agricultural insurance into agricultural and rural development policies, as well as food security.	Representatives from the agriculture insurance and reinsurance industry, donors and international development organisations.	Berlin, November 27-28, 2014.
Workshop "Strengthening coherence between agriculture and social protection".	Mouhamadou Moustapha Fall (CNAAS) Panellist.	FAO, UNICEF, the African Institute for Health and Development (AIHD), the Africa Platform for Social Protection (APSP), the African Union (AU), and New Partnership for African Development (NEPAD), WFP, and the World Bank.	The relationship between social protection and agriculture including potential synergies and trade-offs in reducing poverty and food insecurity, context specific challenges.	Ministries of agriculture, social welfare and finance from African countries, representatives of civil society, development agencies and subject experts.	Cape Town, November 24-26, 2014.
Policy Forum on Integrating Agriculture and Food Risk Management and Innovative Financial Services.	Muna Tesfaye (OA), Teshome Erkinah WFP, Presenters.	The Government of Ethiopia, The NEPAD Agency and AFRACA.	A policy forum on integrated risk management with special focus on innovative financial tools.	Key Government institutions and parastatals/public enterprise; development partners and NGO s; NEPAD, COMESA, CIRAD, IFAD, FAO, WFP, IFAD; Academia.	Addis Ababa, November, 11-13, 2014.
Promoting climate resilient development within SDC programs in East and Southern Africa.	Fabio Bedini (WFP), Presenter.	Swiss Agency for Development and Cooperation (SDC).	To analyse the implication of climate change for development cooperation and humanitarian aid, with a focus on East and Southern Africa, and propose how to mainstream climate change and DRR into project and programs.	SDC representatives and project implementing partners.	Nairobi, September 8-12, 2014.
Capacity Development to support National Drought Management Policy, Eastern and Southern Africa Region.	Ezimeles e Tecleab (WFP), Munaye Tesfaye (OA), Presenters.	UN Water, WMO, FAO, UNCCD, the secretariat of the Convention on Biological Diversity (CBD).	To develop capacities of stakeholders on national drought management policies.	Participants from 10 African countries including NGOs, policy makers, and experts in agriculture, water, environment, biodiversity and meteorological services.	Addis Ababa, August 5-8, 2014.
Alternative Financing Sources for Climate Change Adaptation.	Munaye Tesfaye (OA), Presenter.	UNEP	To promote constructive dialogue to foster collaboration between public and private institutions, as well as international development organisations on alternative financing for climate change adaptation.	Public and private organizations, multilateral banks, cooperation agencies and NGOs.	Lima, August 28-29, 2014.

APPENDIX II: RURAL RESILIENCE EVENT SERIES

Event Name	R4 role	Organizer	Focus	Expert Panel/Speakers/Attendants	Event Date & Location
Social Innovation Summit 2014.	Richard Choularton (WFP), Presenter.	United Nations	The Social Innovation Summit gathering innovative thinkers who play at the nexus of technology, investment, philanthropy, international development, and business to investigate solutions and catalyze inspired partnerships.	Public and private organizations, multilateral banks, cooperation agencies and NGOs.	New York, May 29, 2014.
MCI/GIZ Workshop on "Innovative Insurance Solutions for Climate Change in a Comprehensive Risk Management Approach - Developing a Toolkit".	Azzurra Massimino (WFP), Presenter.	Munich Climate Insurance Initiative (MCI).	To inform the policy discussion on comprehensive risk management approaches and to support climate negotiators in their short and long-term strategies to address loss and damage.	Public and private organizations, multilateral banks, cooperation agencies and NGOs.	Bonn, May 12-13, 2014.
Adaptation Futures 2014: Third International Climate Change Adaptation Conference).	Mansi Anand (OA), Presenter.	Earth System Science Center of the National Institute for Space Studies, Brazil and UNEP.	To share insights into the challenges and opportunities that adaptation presents, and strategies for decision making from the international to the local scale.	Over 300 participants from 50 countries including researchers, policy makers and practitioners from developed and developing countries.	Fortaleza, May 12-16, 2014.
"Harnessing Community Savings Groups for Integrated Risk Management" as part of the Webinar Series: Taking Savings Groups on the Road".	Tenin Fatima Dicko (OA), Fabio Bedini (WFP), Presenters.	Oxfam America, SEEP Network, Carsey Institute.	To discuss the role of saving groups in expanding financial inclusion and development.	Saving group practitioners and development community in general.	Remotely via WebEx, April 23, 2014.
ODI Shockwatch Social Protection Workshop "Responding to a crisis: The design and delivery of social protection".	Cecilia Costella (WFP), Presenter.	Overseas Development Institute (ODI).	To discuss the policy design and implementation features that facilitate timely and adequate social protection response in the event of a covariate shock and the financing and planning mechanisms that help secure shock response preparedness. Workshop agenda and concept note are attached.	Social protection specialists and humanitarian emergency response experts from the UN, the World Bank and other NGOs and think tanks.	London, April 2, 2014.
Market Based Solutions: From Concept to Evidence Based strand at The 7th International AfREA conference.	Amelash Haile Tsegay (Independent Consultant for Oxfam America, HARITA), Presenter; Retta Gudisa (Monitoring, Evaluation & Learning Coordinator, Horn of Africa Regional Office - Oxfam America), Moderator.	African Evaluation Association & Rockefeller Foundation with Oxfam.	Market Based Solutions Methodology Panel: To assess the strengths, challenges and impacts of market based solutions to development and to share the various approaches in selecting an appropriate methodology. AfREA Conference: To promote and advocate AfREA's "Made in Africa" approach to evaluation and supporting the culture of evaluation in Africa.	Market Based Solutions strand: J-PAL, CARE, FHI 360 AfREA conference: 600-700 global participants and African policymakers.	Yaounde, Cameroon March 3-7, 2014. Proposal accepted.
International Congress on Insurance and Reinsurance of Agricultural Risks.	Cecilia Costella (WFP), Presenter.	The African Centre for Catastrophe Risks, ACCR, supported by the African Insurance Organisation, AIO, in collaboration with the Société Central de Réassurance, SCR, Maroc and The World Bank.	To highlight significant risks that threaten the agriculture sector, and discuss this issue in the presence of experts and speakers in the field.	Representatives from the agriculture insurance and reinsurance industry.	Marrakech, January 29-31, 2014.

APPENDIX III: MEDIA CITATIONS AND RESOURCES

IN THE NEWS

- Greatrex H, Hansen JW, Garvin S, Diro R, Blakeley S, Le Guen M, Rao KN, Osgood, DE. 2015. [Scaling up index insurance for smallholder farmers: Recent evidence and insights](#). CCAFS Report No. 14 Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online at: www.ccafs.cgiar.org
- The International Research Institute for Climate and Society. [Using Satellite Data to Improve Index Insurance](#) (August 2014).
- Zambia: Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, AllAfrica (September 23, 2014) <http://allafrica.com/stories/201409231508.html>
- Leaders at UN summit take steps to ensure food security for 9 billion people by 2050, Medi For Freedom (September 23, 2014) <http://mediaforfreedom.com/readarticle.php?AID=18583>
- Innovative Climate-Risk Solution Expands to Insure Farmers in Malawi and Zambia, Insurance NewsNet (September 23, 2014) http://insurancenewsnet.com/oarticle/2014/09/24/innovative-climate-risk-solution-expands-to-insure-farmers-in-malawi-and-zambia-a-559233.html#_VCKMC_I_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-ag1pc/>
- Adreinne Klasa and Adam Rober Green, [“Africa’s catalytic agricultural innovations”](#), This is Africa (July 30, 2013).
- Becker-Birck, C., Crowe, J., Lee, J., & Jackson, S., [“Resilience in Action: Lessons from Public-Private Collaborations Around the World”](#), (July, 2013).
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- Climate Change The New Economy (CCTNE), The Guardian and United Nations Environment Programme (UNEP), [“G8 Climate Change: The New Economy”](#), (June, 2013).
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- Disaster Risk Financing and Insurance Program (DRFIP), Global Facility for Disaster Reduction and Recovery (GFDRR), [“Senegal: Disaster Risk Financing and Insurance Country Note”](#) (November, 2012).
- Agence de Presse Sénégalaise, [“Sénégal: Le projet R4 veut aider les agriculteurs à faire face aux changements climatiques”](#), AllAfrica (Nov. 13, 2012).
- Sénégal – Humanitaire, [“Lancement au Sénégal d’une initiative de résilience rurale”](#), *SousLeManguier* (Nov. 14, 2012).
- [“Sécurité alimentaire: L’assurance agricole pour réduire les risques en zone rurale”](#), *Le Soleil* (Nov. 14, 2012).
- Stephan Faris, [“Seeds for Change”](#), *Time* (Sept. 24, 2012).
- Lisa Friedman, [“Companies Begin to See Necessity and Profits in Adapting to Climate Change”](#), *ClimateWire* (July 11, 2012).
- Victoria Eastwood, [“Insurance Helps Kenya’s Herders Protect Against Drought”](#), CNN (June 18, 2012).
- Forum for Agricultural Risk Management in Development (FARMD), [“Oxfam & WFP’s R4 Initiative Begins Expansion into Senegal, Fueled by Success in Ethiopia”](#), FARMD Member Updates (June 5, 2012).
- David Satterthwaite, [“Weather Insurance Builds Resilience for Farmers”](#), *Momentum* (March 2012).
- Jim French, [“Ethiopian Crop Insurance and the Secret Farm Bill”](#), *Hutchnews* (Dec. 22, 2011). This was also posted by: TreeHugger.com, All Voices: Local to Global News, and the World Food Programme.
- David Bornstein, [“News Flash: Progress Happens”](#), *The New York Times* (Dec. 15, 2011).
- Agnieszka Flak, [“Games Wake People Up to Climate Change”](#), *Reuters* (Dec. 2, 2011).
- Laurie Goering, [“Insurance Aims to Help Herders Avoid ‘Downward Spiral’ from Drought”](#), *AlertNet* (Nov. 30, 2011).
- Lisa Jones Christensen, [“Case Study: Swiss Re and Oxfam”](#) *Financial Times* (Nov. 1, 2011).
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- Alertnet, [“Scaling Up Innovative Climate Change Adaptation and Insurance Solutions in Senegal”](#) (September 19, 2011).
- Global Washington blog, [“Reforming Aid: Transforming the World”](#) (Sept. 8, 2011).
- Alertnet, [Index Insurance in East Africa](#), a video produced by the International Research Institute for Climate and Society (Sept. 2011).
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- IRIN Humanitarian News and Analysis, [“Ethiopia: Taking the Disaster Out of Drought”](#) (Nov. 24, 2010).

- [“Global Insurance Industry Statement on Adapting to Climate Change in Developing Countries”](#), ClimateWise, in collaboration with the United Nations Environment Programme Finance Initiative, the Geneva Association, and the Munich Climate Insurance Initiative (MCII) (September 2010).
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- Deborah Kerby, “Climate Covered,” *Green Futures* (July 2010).
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- Anne Chetaille and Damien Lagrandré, [“L’Assurance Indicielle, Une Réponse Face aux Risques Climatiques?”](#) *Inter-réseaux Développement rural* (March 31, 2010).
- Pablo Suarez and Joanne Linnerooth-Bayer, [“Micro-Insurance for Local Adaptation”](#), *Wiley Interdisciplinary Reviews: Climate Change* (March 12, 2010).
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- 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).
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- Jeff Tollefson, [“Insuring Against Climate”](#), *Nature* (July 22, 2009).
- Catherine Brahic, [“An Insurance Plan for Climate Change Victims”](#), *New Scientist* (July 1, 2009).
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- *Newsweek*, [“Coping with Climate”](#) (Dec. 29, 2008).
- 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

- [“Ethiopian Farmers Get a Payout, Easing Effects of Drought”](#)
- [“With Insurance, Loans, and Confidence, This Ethiopian Farmer Builds Her Resilience”](#)
- [“In Northern Ethiopia, Weather Insurance Offers a Buffer Against Drought”](#)
- [“Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought”](#)
- [“Medhin Reda’s Best Asset Is Her Own Hard Work”](#)
- [“Gebru Kahsay Relies on Rain But Has the Security of Insurance”](#)
- [“Selas Samson Biru Faces Uncertainty with the Seasons”](#)

VIDEOS/MULTIMEDIA

- [Africa’s Last Famine](#), a documentary co-produced by Oxfam America and Link TV, featuring HARITA
- [R4: The Rural Resilience Initiative](#)
- *A Tiny Seed and a Big Idea*
- *A New Tool for Tackling Poverty*

PHOTOGRAPHY

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

ACADEMIC JOURNALS AND PUBLICATIONS

- 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).

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.
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- 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.



A woman harvests rice in Koussanar, Senegal. Women, often heading the poorest households, do most of the agricultural work in the country.
WFP / Fabio Bedini.

Collaboration

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



The World Food Programme is the world's largest humanitarian agency fighting hunger worldwide. Each year, on average, WFP feeds more than 90 million people in more than 70 countries.

www.wfp.org/climate-change/r4-rural-resilience-initiative

With support from



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.

www.oxfamamerica.org/r4

With support from

