



DOCUMENTING THE R4 GLOBAL PARTNERSHIP IN ETHIOPIA AND SENEGAL: SUCCESSES AND CHALLENGES

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OXFAM

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LIST OF ACRONYMS AND ABBREVIATIONS

HARITA	Horn of Africa Risk Transfer for Adaptation
IFAD	International Fund for Agricultural Development
IRI	International Research Institute for Climate and Society
NGO	Nongovernmental organization
PSD	Oxfam America's Private Sector Department
PSNP	Productive Safety Net Programme (Ethiopia)
REST	Relief Society of Tigray
WFP	World Food Programme

LIST OF TABLES AND FIGURES

FIGURE 1: Transition from Government-Supported Safety Net to HARITA to R4

TABLE 1: HARITA/R4 evolution timeline

Participants in the R4 Initiative in Rubafeleg district in Tigray built bench terraces and planted trees and cactus to reduce erosion on this hillside where they grow vegetables and grain. They also dammed a stream and pump water up to a reservoir to irrigate their crops. *Petterik Wiggers / Panos for Oxfam*

EXECUTIVE SUMMARY

INTRODUCTION

The R4 Rural Resilience Initiative is a partnership to scale up an integrated risk management framework designed to enable smallholder farmers to cope with the impacts of climate change and to strengthen their food and income security. The initiative grew out of a program named HARITA (Horn of Africa Risk Transfer for Adaptation) developed in 2007 by Oxfam America in partnership with Swiss Re, one of the world's largest reinsurance companies, along with the Ethiopian nongovernmental organization (NGO) Relief Society of Tigray (REST), Columbia University, and a host of other partners. The HARITA model aimed to address the needs of smallholder farmers through an unusual mix of risk reduction (disaster risk reduction [DRR] activities), risk transfer (drought insurance), and risk-taking (credit). HARITA built on Ethiopia's Productive Safety Net Programme (PSNP), a well-established government social protection program serving 8 million chronically food-insecure households.

After three years of promising results, in December 2011 Oxfam America entered into a strategic partnership with the United Nations World Food Programme (WFP) and launched the R4 Rural Resilience Initiative. With the addition in 2012 of "risk reserves" to the HARITA model as the fourth risk management mechanism, the R4 Initiative emerged as a new model for resilience building and climate change adaptation. The purpose of the Oxfam-WFP partnership was to adapt, learn from, and scale up the initiative to make a significant impact on the resilience of farmers in drought-prone areas of Africa, building on the initial success of HARITA.

The objective of R4 was to test and learn how to implement and scale up a comprehensive risk management, adaptation, and resilience approach. R4 sought to test a graduation model that

helped establish commercial agricultural insurance markets for farmers who reached a certain level of income and resilience. R4 efforts were geared toward improving the effectiveness of safety nets while fostering sustainable and commercially viable microinsurance. From the outset, R4 worked with governments to incorporate R4 into their safety net programs, to strengthen the capacity of the private sector to meet the needs of poor rural households, and to build the capacity of farmers to transition from purchasing insurance with labor to purchasing it with cash through the successful integration of all four components of the R4 model.

This unique global partnership brought public and private sector actors together in a strategic large-scale initiative to innovate and develop better tools to help the most vulnerable people build resilient livelihoods. The program leveraged the respective strengths of its partners: Oxfam's convening power and ability to build innovative partnerships; WFP's global reach and extensive capacity to support government-led safety nets for the most vulnerable people; and a range of other partners' considerable technical support.

The R4 strategic partnership sought to develop a proof of concept and to prepare R4 for effective scale-up. Today, R4 has reached the stage where WFP is well positioned to mainstream R4's comprehensive risk management approach and take it to the next level with national governments, and the time has come for Oxfam America to transition out.

With this transition, both WFP and Oxfam felt it timely to reflect on and celebrate the successes of this unique strategic partnership and the programmatic impact partners have had through the R4 Initiative. This report is an effort to document institutional knowledge from actors involved in the design and implementation of R4 and to capture the lessons R4

has generated; it is also a step in Oxfam's responsible exit from the program. This report is intended to inform the next phase of R4 and the development sector more broadly as it engages in similar partnerships—particularly those that are multistakeholder (involving an international nongovernmental organization [INGO], UN agency, the private sector, and government), global or multicountry, and long-term in nature.

The report consists of two parts:

Part 1 reviews existing program evaluations and documentation, focusing on key programmatic achievements, shortcomings, and impacts; providing a gender analysis to address the extent to which R4's design and outcomes effectively responded to the needs of women and men; and discussing R4's role in influencing policy and practices at the global and national level. This review focuses on Ethiopia and Senegal, the two countries where Oxfam was directly involved in program implementation from 2009 through 2018. The summary is limited to the information contained in these evaluations with a stronger emphasis on Ethiopia than Senegal as most of the evaluations focus on Ethiopia, given it has the longest history of program implementation. It is worth noting that although this review is limited to two R4 countries, tremendous work has also taken place in the other five R4 countries—Malawi, Zambia, Kenya, Zimbabwe, and more recently Burkina Faso—however, an examination of the R4 Initiative in these countries is beyond the scope of this report. The program evaluations summarized here have informed subsequent implementation and scale-up of the program.

Part 2 is an analysis of R4 as a strategic partnership that captures the history of R4, including how the partnership was built and how it evolved, and explores the partnership's strengths, weaknesses, and effects.

REVIEW OF EXISTING R4 PROGRAM DOCUMENTATION

Key achievements and shortcomings. Overall, the R4 Initiative has accomplished what it set out to do, with clear impacts on resilience, food security, and diversified livelihoods. Disaster risk reduction projects and improved coping mechanisms have noticeably improved communities' climate resilience. Evaluations in both Ethiopia and Senegal find that the R4 Initiative has improved food security in participating villages. Now better able to manage climate shocks, R4 farmers have improved their livelihoods through diversified income. Farmers have increased crop production through the program, especially through the DRR activities. However, unlike Senegal, the evidence of higher production during good years is limited in Ethiopia due to factors like frequent droughts during the

study years and farmers shifting resources to livestock trading in response to difficult farming conditions. Over the past decade, HARITA and R4 have made a huge leap forward in achieving proof of concept for index insurance, which was previously believed to be too complex and nonviable to attract poor farmers.

In achieving these successes, the program has experienced considerable challenges and offers important lessons for scaling an innovative climate risk management approach. First, R4 is most impactful when the risk management components are deployed based on local needs. In Ethiopia, the R4 components were added in sequence, while in Senegal all four components were implemented simultaneously. Both approaches pose unique challenges and opportunities, operationally and programmatically. Second, although R4 successfully scaled up the use of index insurance, significant efforts have been required to manage basis risk. Third, successful scale-up of insurance requires effective farmer training, consumer education, and appropriate infrastructure for marketing and distribution channels. Experience from Ethiopia and Senegal provides useful insights on these operational aspects. Fourth, while overall, R4's DRR activities conducted through insurance-for-work projects were impactful, maintaining quality, adequate technical assistance, and sustainability required constant effort, especially because R4 is built on existing national safety net programs and therefore relies on the capacities and systems of those programs. Fifth, as the program expanded from a pilot to scale in multiple countries, maintaining the level of high-touch community engagement, including gathering and responding to participant feedback, proved challenging. Establishing safe and responsive feedback mechanisms is critical in R4 programming as it continues to scale; progress has been made in recent years by WFP in this regard. Finally, despite constrained financial resources, the program has managed to build a strong evidence base that has played a huge role in influencing global debates on resilience, adaptation, and climate finance. However, one critical gap remains, as the Initiative doesn't track farmers' retention and dropout rates in the insurance program, and therefore can't know if farmers are continuing to purchase insurance year after year.

R4 and gender. Given the R4 Rural Resilience Initiative's overarching goal to improve the resilience and livelihood security of the world's most vulnerable people, understanding its impact on gender justice is critical to informing continued implementation. Gender justice has been a key part of the HARITA/R4 design. To appreciate the differential needs of women and men, R4 national assessments, performed prior to project launch in specific countries, included gender considerations to facilitate gender mainstreaming into the needs assessment, design, implementation, monitoring, and evaluation of the program.¹ Today the program reaches

Dienabou Ba, 50, lives in Dioulacolon, a small town in Kolda, eastern Senegal. When Oxfam's partner La Lumière started the R4 risk reduction project in this area, Ba helped recruit farmers to the insurance program, and has been a key player in finding resources for training and other assistance for women in the village. *Chris Hufstader / Oxfam America*



from more than 40 percent of women (in Ethiopia) to more than 85 percent of women (in Kenya) as stated in the R4 2019 annual report.² Overall, the evaluations suggest that R4 has contributed to women's empowerment in several ways, including increased decision-making and financial autonomy, increased access to assets and resources, and increased confidence, as well as increased solidarity and trust among communities.

Although the program embedded gender considerations and standards into its design, ensuring gender-responsive implementation came with its own set of challenges: resourcing for monitoring a diverse set of indicators in varied contexts, and recruiting and retaining female staff for facilitating gender-responsive activities with communities, to name a few. R4's implementation across a spectrum of socioeconomic and cultural landscapes poses unique opportunities and challenges from a gender perspective. While progress is being made at different levels in the different contexts toward furthering gender equality, the R4 team is aware of the challenges facing women that should be considered as the program continues to grow. More specifically, the unequal household division of labor and care responsibilities owing to prevailing social norms continue to constrain women's time and energy for economic activities. Second, higher illiteracy rates combined with their disproportional effects on financial decision-making processes pose greater barriers to women's ability to access profitable

income-generation opportunities. For example, in Ethiopia, as a consequence of lack of education, adverse social norms, and lack of trust and support from their spouses, women are yet to meaningfully participate in leadership roles.³ There is room for integrating gender-transformative approaches and tools that facilitate dialogues between spouses on household care work, and for integrating tools and trainings that promote women's transformative leadership to address these barriers and enhance the role of women in leadership and their influence in the community.

Policy impact. From the inception of the program, Oxfam and the WFP complemented R4 implementation work with policy-influencing efforts aimed to increase scale and impact. Partners recognized that the key to ensuring the sustainability of the R4 model was through the creation of an enabling policy and regulatory environment. Local implementation of the initiative has influenced policy and practice at the national and global levels. Although there has not been a systematic review of the R4 Initiative's policy influence, anecdotal examples in Senegal and evidence of national-level policy wins in Ethiopia demonstrate success in this area.

At the national level, the R4 model informed the Ethiopian government's Disaster Risk Management Strategic Program and Investment Framework, and the government of Ethiopia included weather index insurance in its climate resilience strategy policy document. At the global level, the initiative has influenced the rise of climate risk insurance as a featured

best practice under the UN Framework Convention on Climate Change (UNFCCC, the United Nations body responsible for climate) Warsaw International Mechanism for Loss and Damage and the International Finance Corporation's Global Index Insurance Conference. R4 is seen as a leading example of how climate risk management can address climate-related loss and damage by being integrated into safety nets.

Demonstration of R4's local-to-global impact has also influenced the World Food Programme's strategies with the adoption and mainstreaming of the R4 approach into WFP programming. Other international NGOs and development agencies have also been influenced by R4 design and outcomes; for example, CARE and the Japan International Cooperation Agency have incorporated weather-index projects for rural resilience explicitly modeled after R4.⁴ This global influence has the potential to impact farmers' lives on a scale much wider than the R4 Rural Resilience Initiative can reach alone.

In summary, HARITA and the R4 Rural Resilience Initiative have established an impressive decade-long legacy that illustrates the potential of integrated risk mitigation techniques to improve community resilience to climate shocks. The evaluations in Ethiopia and Senegal provide evidence suggesting that the R4 approach has enabled farmers to improve their coping mechanisms, food security, and livelihoods through diversified income. Furthermore, the program has had considerable impact on women's empowerment and well-being and has served as an important example of local-to-global influencing on climate resilience.



Farmers plant trees as part of the risk reduction activities in Maichew, Ethiopia. Farmers pay for their insurance premiums by working on such community projects. *Eva-Lotta Jansson / Oxfam America*

R4 AS A STRATEGIC PARTNERSHIP

The HARITA program and the R4 Rural Resilience Initiative are built on complex and unique partnerships, featuring interdisciplinary teams that draw from the private sector, civil society, government, and research institutions. Consultations with current and former R4 stakeholders identified several strengths of the partnership. R4 brought the "best of the best" partners together, each making uniquely valuable contributions. All partners also committed to ensuring the intervention design emerged from direct engagement with smallholder farmers and remained responsive to their needs. The shared interests of Oxfam, WFP, Swiss Re, and others at the global level served as a "strategic lever" for the successful scale-up of R4, and the model proved popular with donors and policymakers. These shared interests were reinforced with WFP and Oxfam's joint fundraising and fund management. Additionally, the partnership's early ways of working embedded a "one team approach"—and several staff moved among partners later in their careers. Finally, from the start, the partnership demonstrated a commitment to robust monitoring, to evaluation and learning, and to documenting evidence of the program's impacts, along with a willingness to learn and adapt.

Interviews with past and current staff also revealed several weaknesses. Capacity and value add shifted among partners over time, driven by organizational change, loss of staff, and gaps in institutional memory. As time went on, Oxfam and WFP became less adept at joint visioning—leading to a fading vision of the future regarding their respective roles. The partnership's later ways of working were affected by a loss of trust and shared understanding. Given R4's innovative, multidisciplinary approach, the program didn't have a "natural home" within Oxfam's structure.

Finally, the consultations offered the following conclusions and lessons learned: All of the participating institutions evolved in some way through their role in R4, taking on better-integrated resilience work, engaging in more-sophisticated private sector partnerships, and gaining capacity. Developing proof of concept and building relationships takes a long time—so institutions must be prepared to be patient. Trust, clear ways of working, and open communication are critical. Partnerships like R4—between a UN agency, an international NGO, the private sector, and many others—have the capacity to deliver truly innovative work. Exit strategies and transition plans are essential and must be maintained and updated—particularly in multistakeholder partnerships where organizations are likely to face different constraints over time.

INTRODUCTION

OVERVIEW OF THE R4 RURAL RESILIENCE INITIATIVE

The R4 Rural Resilience Initiative is a partnership to scale up an integrated risk management framework designed to enable smallholder farmers to cope with the impacts of climate change and to strengthen their food and income security. R4 grew out of a program named HARITA (Horn of Africa Risk Transfer for Adaptation) developed in 2007 by Oxfam America and Swiss Re, one of the world's largest reinsurance companies, along with an Ethiopian nongovernmental organization (NGO) called Relief Society of Tigray (REST), Columbia University, and a host of other partners.

Focused on exploring the potential and limits of the then-poorly understood tool of agricultural microinsurance, HARITA broke new ground in the field of rural risk management by enabling Ethiopia's poorest farmers to pay for crop insurance with their own labor. The idea of insurance for work had emerged during discussions with farmers and was tested through HARITA.

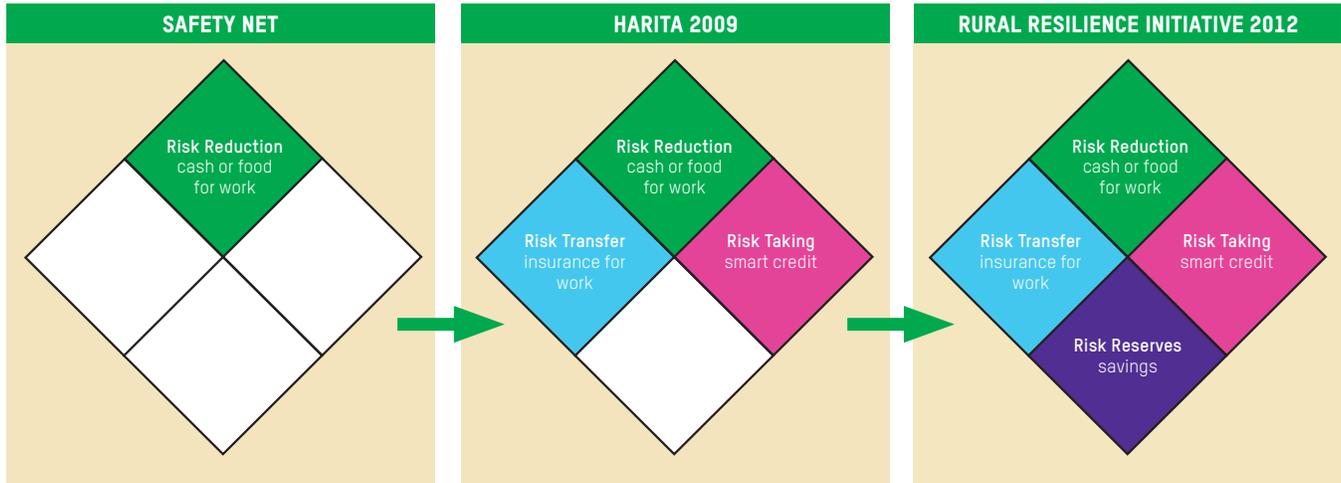
The HARITA model aimed to address the needs of smallholder farmers through an unusual mix of risk reduction (disaster risk reduction, or DRR), risk transfer (drought insurance), and risk-taking (credit). Its risk reduction and insurance-for-work approaches built on Ethiopia's Productive Safety Net Programme (PSNP), a well-established government social protection program serving 8 million chronically food-insecure

households. HARITA was implemented through financial support from Swiss Re, the Rockefeller Foundation, and Janet McKinley.

In its first three years of operations in Ethiopia, HARITA showed promising results for replication: It increased the number of households taking out insurance from 200 in 2009 to more than 13,000 in 2011. HARITA laid the foundation for demand-driven index insurance, bringing insurance closer to the core interests of farmers by investing in educational tools, engaging farmers meaningfully in insurance design, and conducting research to overcome weather data barriers for robust index products.

In December 2011, Oxfam America entered into a strategic partnership with the United Nations World Food Programme (WFP) and launched the R4 Rural Resilience Initiative. With the addition in 2012 of "risk reserves" to the HARITA model as the fourth risk management mechanism, R4 emerged as a new approach for resilience building. The purpose of the Oxfam-WFP partnership was to adapt and scale up the initiative to make a significant impact on the resilience of drought-prone farmers, building on the initial success of HARITA.

FIGURE 1: TRANSITION FROM GOVERNMENT-SUPPORTED SAFETY NET TO HARITA TO R4



This unique global partnership brought public and private sector actors together in a strategic large-scale initiative to innovate and develop better tools to help the most vulnerable people build resilient livelihoods. The program leveraged the respective strengths of its partners: Oxfam’s convening power to build innovative partnerships and WFP’s global reach and extensive capacity to support government-led safety nets for the most vulnerable people. Swiss Re, as a global reinsurer, provided technical expertise in insurance and reinsurance, and Swiss Re also supported the program financially through philanthropic funding. The International Research Institute for Climate and Society (IRI) provided technical expertise in climate data and weather index insurance design.

The partnership set out to pursue five key objectives:

- **Test the impact of integrating risk reduction and risk transfer mechanisms** (such as insurance-for-work programs) into WFP and Oxfam America programs.
- **Demonstrate the conditions and requirements for effectively scaling up** comprehensive risk management solutions for food-insecure communities.
- **Develop and evaluate tools for implementing comprehensive risk management solutions** on the foundation of conditional transfer safety net programs.
- **Test mechanisms for spreading risk** across multiple country-level risk transfer initiatives, such as reinsurance.
- **Foster viable market-mediated risk transfer mechanisms** that benefit vulnerable and food-insecure households.

During 11 years of implementation, HARITA and R4 have been successful in terms of both programmatic outcomes and policy influencing outcomes. While a more detailed summary of programmatic achievements and impacts is provided in Part 1 of this report, below is a brief overview of what the R4 partnership has achieved.

- **As of October 2019, the program scaled to reach 93,000 vulnerable farmers (55 percent of whom are women small-holder farmers) in seven African countries.** R4 expanded to Ethiopia, Senegal, Malawi, Zambia, Kenya, Burkina Faso, and Zimbabwe, with WFP leading operations in the latter five countries. The participatory design and culturally appropriate education methods employed during the early HARITA days and the in-kind insurance-for-work premium payments that the program offered made an important contribution in creating affordable, demand-driven index insurance and have contributed to a high level of participation by female-headed households.⁵
- **Oxfam and WFP’s engagement with the private sector and research institutions has led to high-performing weather index insurance products using satellite imaging.** The 2018 agricultural season triggered the largest insurance payouts in the history of R4, totaling \$1.5 million to more than 31,000 farmers (52 percent of whom are women) to compensate for their weather-related crop losses in Ethiopia, Kenya, Malawi, Senegal, and Zambia.⁶ These payouts enabled farmers and their families to meet their basic needs—such as buying food or paying children’s school fees—and to invest in diversified livelihoods.⁷ Oxfam’s catalytic role in convening a wide range of actors from the private sector, the public sector, and civil society, as well as national and international research institutes, in designing the HARITA pilot provided a strong institutional foundation in scaling the R4 model.

- Joint operations have **led to an effective network of local partners** who have been able to make the comprehensive risk management approach of R4 work on the ground. A recent internal review in Ethiopia by Oxfam America found that several longstanding R4 partners have gained considerable capacity, knowledge, and understanding of the strengths and weaknesses of the R4 model and are well positioned to adapt and further scale the R4 approach and tools as R4 enters its next phase of operations.⁸
- The partnership **successfully raised \$22 million (out of the \$30 million intended under the 5-year partnership) to launch R4 in four countries:** Ethiopia (2009), Senegal (2013), Malawi (2015), and Zambia (2015). The funds were raised from foundations, multilateral donors, and individual donors. The joint fundraising efforts have recently led to additional multiyear funding for Ethiopia and Senegal, and WFP was able to expand the program further in Kenya (2017), Zimbabwe (2018), and Burkina Faso (2019).
- **Rigorous evaluations and farmer feedback suggest that the R4 integrated risk management framework works** and is having a positive impact on people’s lives, livelihoods, and resilience. Its approach is effective in successfully targeting poorer farmers and is replicable.⁹
- The partnership also **proved that microinsurance coverage can be integrated into safety net programs and be scaled up.** The R4 Rural Resilience Initiative successfully took the HARITA model to multinational scale through leveraging WFP’s extensive network of safety nets and cash-for-assets programs. R4 demonstrates how insurance can enhance national safety nets in contributing significantly to long-term household welfare by transferring risks of disasters on food systems, communities, and productive ecosystems, while also addressing farmers’ immediate food needs.¹⁰

With these results, R4 has achieved what the Oxfam-WFP strategic partnership set out to do.

PURPOSE OF THIS REPORT: A TIME OF TRANSITION

The R4 strategic partnership sought to develop a proof of concept and to bring R4 to a level where it is ready for effective, significant scale-up by WFP. Today, R4 has reached the stage where WFP is well positioned to mainstream the approach and tools developed under R4 and to take the initiative to the next level of scale-up with national governments.

Over the course of the seven-year partnership (2012–2018), operational modalities have changed for both Oxfam and WFP, with country offices taking the leadership role on R4. Oxfam has also undergone a confederation-wide change process, including shifting its international secretariat to the Global South (Nairobi, Kenya). With these considerations, Oxfam and WFP have agreed that any future potential partnership will be driven at the country level where there is strategic alignment. Moving forward, WFP will take the lead in managing and scaling R4 operations globally as Oxfam America transitions out of the R4 program. This process is aligned with the original vision and goal of the Oxfam-WFP R4 strategic partnership.

With this transition, both organizations felt it timely to reflect on and celebrate the successes of their unique strategic partnership and the programmatic impact it has had through the R4 initiative. This R4 global partnership report is an effort to document institutional knowledge from actors involved in the design and implementation of the R4 Initiative and to capture the lessons generated. This report is intended to inform both the next phase of R4 and the development sector more broadly as it engages in similar partnerships—particularly those that are multistakeholder (involving international nongovernmental organizations [INGOs], UN agencies, the private sector, and governments), global or multicountry, and long-term in nature. As increasingly complex development challenges demand innovative strategic partnerships to generate sustained solutions, R4 offers important strategic, management, and operational lessons.



Binta N'Dao lives in Kalbiron, in eastern Senegal, a village where Oxfam's R4 program started in 2012. Since then, the village has organized savings and loan groups, built erosion control walls, and helped farmers like N'Dao improve agricultural production and grow more food despite occasional drought. *Jane Hahn / Oxfam America*

REPORT OVERVIEW AND STRUCTURE

This report's findings are presented in two parts. **Part 1** is a review of existing impact evaluations, gender analyses, feasibility assessments, process evaluations, and project documentation from R4 in Ethiopia and Senegal conducted from 2009 to 2018, including an assessment of key programmatic achievements, shortcomings, and impacts; the extent to which R4's design and outcomes effectively addressed the needs of women and men and advanced gender justice; and the role of R4 in influencing policy and practices at the global and national level, including documenting the local-to-global influencing approach, including policy wins. Part 1 is partly excerpted from a longer internal report produced by Caroline Andridge, an independent consultant contracted by Oxfam.¹¹

It should be noted that Part 1 does not involve new data collection; given the robust set of external evaluations already conducted on R4 programming in Ethiopia and Senegal, this report instead summarizes existing knowledge. Because most of the evaluations focus on Ethiopia (given the program's longer history there), the report features a stronger emphasis on program implementation and impact in Ethiopia than Senegal. In addition, the existing evaluations have their own shortcomings (for example, small sample sizes and other data limitations), which are mirrored in the synthesis. The published evaluations are also at least two years old, and therefore they do not speak to the most recent programmatic adjustments and innovations. Few existing evaluations strategically assessed the initiative's impact on gender justice or policy influence or implications. Evidence for those two

components is largely anecdotal. Finally, given that this is an Oxfam report, it only examines evidence from the countries where Oxfam played an active role, and does not examine evaluations and other programmatic documentation from the other five countries where WFP led the program with other partners.

Part 2 is an analysis of R4 as a strategic partnership, including its early history and a review of partnership strengths, weaknesses, and effects/implications. Part 2 concludes with lessons learned and recommendations, particularly focused on the opportunities and challenges of building global partnerships across large institutions.

Part 2 was undertaken by two Oxfam America staff, Emma Fawcett (senior evaluation and learning advisor) and Mansi Anand (formerly senior advisor, R4, and currently senior advisor, women's economic empowerment), and is informed by a series of interviews with R4 global stakeholders.¹² A total of 17 semistructured interviews were conducted in February and March 2020 with current and former R4 staff and stakeholders from six institutions. These targeted interviews were designed to document the firsthand experiences and reflections of those who built R4 as a strategic partnership, capturing institutional memory and transferring knowledge that might otherwise be lost over time and as the initiative transitions to a new phase. To protect the anonymity of interviewees, none of the respondents are identified in this report. The only direct quotations that appear are drawn from existing publicly available documentation.

PART 1: REVIEW OF EXISTING R4 EVALUATIONS AND PROGRAM DOCUMENTATION

This section summarizes findings from the existing evaluations, assessments, reviews, and other program documentation of HARITA and the R4 Rural Resilience Initiative conducted by third parties to assess program implementation and outcomes.

KEY IMPACTS OF HARITA AND THE R4 RURAL RESILIENCE INITIATIVE

Disaster risk reduction projects and improved coping mechanisms have noticeably improved communities' climate resilience. In Ethiopia, R4 villages have access to improved water sources (for example, new wells and springs), and marginal lands in Tigray have been reclaimed.¹³ An analysis of the HARITA program found a similar improvement in building communities' resilience to drought.¹⁴ Improved climate resilience is also evident in Senegal. Program participants experienced greater increases in average household production of staple crops during a period of climate shocks than nonparticipants did.¹⁵ This enhanced resilience reduces the impact of drought on food security while maintaining productive assets.

Evaluations in both Ethiopia and Senegal find that the R4 Initiative has improved food security in participating villages. While each village evaluated has had significantly different experiences regarding food security, average food consumption score (FCS) data suggest broad improvement in participating villages. (The FCS is a food security indicator based on a household's food frequency, nutrition, and diversity; it was developed by WFP in 1996.) For example, in one village that participated in R4 in Ethiopia in 2016, the proportion of households who ate three times a day increased, while the proportion decreased in control

villages; this success was not experienced in the other two villages in the evaluation.¹⁶ In Tigray, the overall decline in food security based on the FCS during a severe drought in 2015 was 26 percent smaller in participating female-headed households than in control villages.¹⁷ It is worth noting that in Ethiopia, almost all insured households (those that sign up for the insurance-for-work option) are participants of the government-run Productive Safety Net Programme and are benefiting from the cash- and food-for-work program in addition to insurance coverage through R4. The positive effects on participants' food security are attributable to the integration of R4 into the existing social protection mechanisms. In Senegal, participants' FCS increased more than four times as much as nonparticipants between 2015 and 2016 (8.1 points, compared with a 2-point improvement for nonparticipants). Based on this improvement, 61 percent of program participants now have an acceptable food consumption score (per WFP's categorization), compared with 36 percent of nonparticipants.¹⁸ This progress includes improved diet diversity, largely attributable to microgardening activities conducted as part of DRR.

Now better able to manage climate shocks, R4 farmers have improved their livelihoods through diversified income. Over the course of R4 implementation in Ethiopia since 2009, the program has seen gradual improvement in farmers' livelihoods. The HARITA evaluation (2009–2012) found that insured farmers were able to maintain their livelihoods when rains failed through increased

savings, grain reserves, and number of oxen owned.¹⁹ These cushions helped address the urgent threat to livelihoods posed by frequent droughts in the region of Tigray. However, the farmers also expressed that the program was not yet improving livelihoods in a transformative way—that is, it wasn't helping farmers grow out of poverty, an ambitious goal that requires time.²⁰

In 2017, when the second evaluation of the R4 Initiative in Ethiopia was published, R4 was eight years old and showed clear progress over the 2009–2012 evaluation in two ways: (1) it was enabling farmers to cope with shocks to livelihoods without reducing food consumption, critical expenditures, and future ability to generate income (for example, farmers coped better in the historic drought in 2015 in R4 villages than in control villages); and (2) it was diversifying income to include sources that are more resilient to shocks, like helping participating female-headed households retain their oxen and accumulate livestock as compared to control villages. In addition, R4 was supporting faster accumulation of savings in male-headed households and increased borrowing among female-headed households compared with their counterparts in the control group. However, the evaluation showed no progress in terms of improvements in agricultural production compared with the previous round of evaluations, and it noted weather shocks and pests in 2016 as considerable obstacles to improving yields.²¹

The most recent focus group discussions conducted in Ethiopia as part of the feasibility study for the scale-up phase in 2017 with poor subsistence farmers (as opposed to ultra-poor farmers) suggest that farmers have increased their livelihood security through increased and diversified assets. The many years of DRR measures such as building check dams (designed to prevent erosion by reducing the speed of water flow), farm bunds (small barriers of soil or stone to prevent runoff and erosion), and terraces; enacting communal grazing management; and planting of high-value fodder plants have led to increased production and income for farmers. Such activities have enabled former subsistence farmers to invest in surplus production for sale.²² Several farmers have reported the new ability to participate in small income-generating activities and to sell products like honey, fruits, and vegetables to local markets.²³

In Senegal, R4 also showed positive impact on participants' household income and assets. The evaluation conducted in 2016 suggests that R4 participants increased their investments in livestock between 2015 and 2016, while nonparticipants showed a reduction in average headcount of cattle owned. The R4 participants' increased livestock investment is attributed to their access to credit through savings groups as well as to higher production of crops used to feed cattle.²⁴

R4 participants in Senegal experienced improved crop production; there is less evidence in Ethiopia that R4 has positive effects on farmers' yields in good years. Although the HARITA evaluation (2009–2012) did not identify an increased yield from the program,²⁵ the subsequent R4 evaluation (2012–2016) found more mixed results. These contrasting findings reflect the fact that farmers experienced drought in the 2012 growing season, one of the two included seasons in the HARITA evaluation. Also, the best rainfall season (2010) occurred when the program was in its first year of operations in four of the five sample villages, making it difficult to observe effects of the R4 Initiative on subsequent years' yields. Similarly, the historic drought that occurred in 2015 affected two of the three study districts in the R4 evaluation that observed the period from 2012 to 2016. However, the evaluation also found that DRR activities have contributed to increased crop production during good seasons in Ethiopia.²⁶ Farmers emphasized that access to irrigation is necessary to improve production. The evaluation also highlighted the importance of income diversification, especially in regions that are increasingly prone to drought where maintaining agricultural production is difficult without irrigation. In the most drought-prone of the three districts studied the negative impact on crop production during a good year may have been because farmers shifted resources to livestock trading among male-headed households and to nonagriculture investment among female-headed households.²⁷

In Senegal, the evaluation conducted in 2016 found that R4's interventions have led to higher yields for rice, millet, maize, beans, sorghum, and peanuts compared with yields for farmers not participating in R4.²⁸ Across all three locations studied in Senegal, the average volume of rice produced per household increased by more than 90 percent from 2015 to 2016, for example. Nonparticipant households experienced a smaller yield increase of 42 percent during the same time period.²⁹ R4 participants in Senegal also increased their use of fertilizers compared with use by nonparticipants; participants attribute their fertilizer use to the training on compost-making provided through R4 and to the provision of small credit through savings groups.³⁰ Participants were found to rely more than nonparticipants on crop production for their household income, and their food-related average monthly expenditure was lower than that of nonparticipants, indicating that nonparticipants were purchasing more food to make up for a less productive agricultural season.³¹ However, it was also noted by the program team in Senegal in 2016 that although R4 farmers were generally better able to cope with climate variability, access to credit and markets will need to be enhanced for them to move beyond subsistence farming.³² Strategies like cereal banks and warrantage (where farmers can store surplus grain in cereal banks and then use it as collateral for loans) were integrated and strengthened within R4 in the subsequent years.

HARITA and R4 have made a huge leap forward in achieving proof of concept for index insurance. One of Oxfam America and WFP's main goals at the outset of the R4 Rural Resilience Initiative was to determine whether an integrated risk management approach that included risk transfer mechanisms such as index insurance could be brought to scale for food-insecure smallholder farmers to improve their climate resilience. Prior to the R4 Initiative, index insurance for poor smallholder farmers was believed to be nonviable because farmers didn't have the cash to pay for it, and weather index crop insurance was believed to be too complex to attract poor farmers.³³

Based on evaluation evidence, this perception has largely been disproven. First under HARITA and then R4, the insurance program has grown rapidly. The results of the R4 partnership show that the program scaled and was replicable beyond the Ethiopian context, and insurance take-up (34 percent in the HARITA pilot in 2009) has exceeded most other microinsurance products.³⁴ High levels of demand for index insurance in the areas served by the R4 Initiative contrast with low levels of demand for insurance in other contexts.³⁵ This difference was primarily a reflection of R4's innovative approach of integrating microinsurance into a safety net program using a conditional transfer mechanism (that is, insurance for work). Through the insurance for work mechanism, farmers received more than just insurance. By paying their premiums through risk-reducing labor, very vulnerable farmers benefit even when there is no payout—meaning the risk reduction measures taken in their communities support climate resilience and agricultural productivity in the long run. In recent years, WFP has tested area yield index insurance (where the indemnity is based on average harvested yield for that location) elsewhere where R4 is expanding, with encouraging results.



Farmers sign-up for the HARITA insurance pilot in 2009 in Adi Ha village of Tigray, Ethiopia. *Michelle Katz / Oxfam America*

The increased demand for insurance that R4 spurred has encouraged private insurers to enter the market. For example, in Ethiopia, more private insurers now offer weather index insurance as part of their portfolios.³⁶ High rates of R4 participation and engagement in trainings about index insurance for smallholder farmers have changed opinions about index insurance viability in the private sector.³⁷ R4's early success and the introduction of new insurance providers and microfinance institutions into the market make the scheme more viable. R4's potential as a broader model for agricultural microinsurance has been assessed positively by Swiss Re, WFP, and the US Agency for International Development (USAID).³⁸

As indicated in the 2017 feasibility study of R4 Phase 2 in Ethiopia, the R4 insurance product provides a similar value for money to R4 farmers as other agricultural microinsurance programs in Africa. Discussions with farmers and other program stakeholders found that R4 participants often used their payouts to buy assets such as seeds, fertilizer, or small machinery, and a small portion of the payouts is used to pay for food after a drought year. As most participants also benefit from Ethiopia's safety net program (PSNP) food and cash transfers, payouts can be used to invest in livelihoods and support faster recovery and growth.³⁹

Despite R4's success in scaling up insurance, very few farmers in the insurance-for-work program in Ethiopia have transitioned to pay for the premiums fully in cash. While factors like the PSNP mechanisms enabled HARITA and R4 to test the feasibility of microinsurance in rural Ethiopia, the regulatory limitations on mobile phone-based insurance and the limited branches of financial institutions in rural areas have constricted the progress of R4 in important ways. The feasibility study for Phase 2 in Ethiopia was conducted specifically to identify R4's scale-up and sustainability strategy. This study suggests that the large reach of the program in Ethiopia provides an opportunity to encourage program stakeholders like microfinance institutions and local insurance companies benefiting from R4 to take over a higher share of expenses and/or invest in insurance and microfinance infrastructure development.⁴⁰

A comparative analysis of R4 with direct cash transfer programs and macro-level drought insurance, conducted as part of the R4 Phase 2 feasibility study in Ethiopia, suggests how microinsurance programs can serve as exit strategies from social cash transfer programs. Based on the results from this analysis and drawing from other related literature, the Phase 2 feasibility study recommends that moving forward, R4 in Ethiopia should focus on poor subsistence farmers who have the potential to develop into market-ready farmers and not on the poorest of the poor farmers who have limited potential to escape the poverty cycle. This latter group should continue to be supported by



Women conduct Saving for Change meeting in Tambacounda, Senegal.
Katie Naeve / Oxfam America

Ethiopia's PSNP food and cash transfers as a more appropriate and cost-efficient measure.⁴⁴ The current operations in Ethiopia are informed by these recommendations to ensure the long-term sustainability of the program and the financial viability of the insurance component. The experience in Ethiopia will be critical in informing future long-term strategies in other countries.

PROGRAMMATIC CHALLENGES AND LESSONS

Although the R4 Rural Resilience Initiative's impacts and achievements are significant, all interventions have shortcomings; this report highlights six key challenges, all of which are likely to be relevant to future phases of R4 and other resilience programming.

Delivering all the components of R4's comprehensive risk management framework in each context presented operational difficulties, and R4 is most impactful when the risk management components are deployed based on localized needs. The most notable R4 results discussed above rely on the interplay

between the different risk management strategies that make up the R4 approach. It is important to note that the R4 model is not a set menu of four risk management services to be delivered directly through the program and in the same way everywhere, but rather an approach that facilitates farmers' access to risk management tools leveraging existing national institutions and infrastructure. Resilience is complex and multidimensional, and it varies by context—which requires flexibility in how the four resiliency components (risk reduction, risk transfer, risk taking, and risk reserves) are sequenced. Realizing the full spectrum of risk management interventions was challenged by context, institutional capacities, partnerships, and the enabling environment in each country.

In Senegal, a process evaluation conducted in 2013, one year after the launch of the program, highlighted the difficulties partners faced in coordinating and implementing all the R4 components simultaneously. Lack of synergy across partners and lack of shared understanding of the R4 model and how to make all R4

components work effectively for program impact led to challenges among partners to implement the different R4 activities in an integrated way.⁴² The subsequent R4 impact evaluation in Senegal conducted after three years (2016) showed that the integrated approach had a greater impact on the program participants than what could be achieved through each of the four components independently.⁴³ It is also worth noting that when R4 was launched in Senegal, the model had gone through its first iteration in Ethiopia, and the team was able to implement the fully articulated R4 model and its vision building on the experience in Ethiopia.

In Ethiopia, the data from 2016 shows that less than 10 percent of farmers took advantage of all four components of R4. The data from that year suggests that less than 10 percent of the R4 insured farmers were organized into savings groups, and less than 2 percent of insured farmers in Ethiopia took out a loan from the revolving fund set up within the R4 program to facilitate access to investment loans for income-generating activities (IGAs).⁴⁴ Farmers and R4 stakeholders attribute low savings to an underdeveloped savings culture in Ethiopia, and they associate the low take-up of loans within R4 to the limited size of the revolving fund. Interestingly, the 2016 evaluation in Ethiopia found that all four components of R4 are contributing to the effects on savings, borrowing, and diversification of incomes, not only the saving and credit services that were introduced in 2014–2015.⁴⁵

It is important to put this finding into a broader context of how savings and credit components of R4 evolved and interplayed within the R4 model in Ethiopia. First, unlike in Senegal, savings and credit services were not part of the initial HARITA design and were introduced in 2014–2015 in Ethiopia as a mechanism to minimize basis risk.⁴⁶ These interventions were focused in districts that were prone to basis risk, and the interventions were based on the premise that farmers who exercise income diversification by participating in on-farm and off-farm IGAs and who practice savings are better equipped to cope with major yield losses that exceed their insurance coverage. During the 2016 evaluation, farmers reported that the introduction of savings and loans through a revolving fund was the most impactful component of R4.⁴⁷ In a focus group discussion reflecting on whether participants have changed their coping strategies since the inception of R4, participants reported a number of changes including use of increased savings. They expressed that they now recognize the importance of saving and that they use their own savings together with the insurance payout to fund nonfarm income-generating activities.⁴⁸ This behavior speaks to the integrated approach of the R4 model and how the different components complement each other in supporting farmers' resilience without direct delivery of service through the program.⁴⁹

Second, although R4 savings and credit services reach a limited number of R4 insured farmers, approximately 60 percent to 70 percent of R4 farmers take out a loan directly (outside of the R4 program) with the local microfinance institution Dedebit Credit and Savings Institution (DECSI) at a much higher interest rate (15 percent at the beginning and then declining over time to a minimum of 9 percent for the final repayment) compared with the loan offered under R4 program through the revolving fund (average 10 percent; range 9 percent to 12 percent).⁵⁰ These figures suggest a strong demand for credit and an insufficient supply of affordable loans. WFP and partners are considering ways to strengthen integration of credit and savings mechanisms within the R4 approach by incentivizing microfinance institutions to offer more and larger loans to meet farmers' needs for the next phase of R4 in Ethiopia.

Last, it is important to note the critical role the Relief Society of Tigray, the largest NGO in Ethiopia with longstanding experience in community development, played in testing, integrating, and expanding the R4 model into its activities. REST executes all four components of R4 in Tigray in coordination with regional authorities, which helped in operationalizing the complex model effectively.

Although R4 achieved successful scale-up in index insurance, managing basis risk remains a major challenge. The implementation of weather index and other microinsurance schemes is complex. First, index insurance products come with an inherent basis risk challenge: a mismatch between the index-triggered payouts and the actual losses suffered by policyholders. Second, educating farmers about insurance and basis risk is particularly challenging because insurance is a highly technical and complex financial instrument. From the beginning of the initiative WFP and Oxfam assessed basis risk and put in place basis risk management plans for each country.

To minimize basis risk related to insurance contract and product design, the International Research Institute for Climate and Society (IRI), together with local partners and with inputs from farmers, continually made adjustments to the index in Ethiopia and Senegal by using new satellite techniques. From the beginning of the project, procedures were put in place to conduct end-of-season technical assessments to gauge the performance of the index and to seek farmer feedback for improvement. For example, when HARITA was in its experimental stage and was in its first year of insurance rollout in 2009, participating farmers suffered a significant crop loss—but the insurance did not trigger. Given the crop loss and that the insurance product was still under development, Oxfam America decided to make a one-time, voluntary donation to the farmers who participated in HARITA. The donation amount



Farmers playing risk simulation games in Adi Ha village of Tigray, Ethiopia.
Eric Holthaus / International Research Institute for Climate and Society (IRI)

was calculated by applying a hypothetical model of an index that could have addressed the risk.⁵¹ Subsequently, in 2013, when the program encountered a significant basis risk issue in the Tigray region of Ethiopia, a hybrid index combining the enhanced vegetation index (EVI) and Africa Rainfall Climatology (ARC2) datasets was tested and rolled out in 2016 based on promising results.

Subsequently, 2015 was a major drought year as a consequence of the El Niño effect. Farmers raised concerns when payouts were only triggered in eight of the 21 villages in north-eastern Tigray despite a reportedly below-normal rainfall with long dry spells in the whole area. That year, the end-of-season assessment revealed a complex set of circumstances that led to the basis risk event that were not just related to technical performance of the index but also related to the choices farmers made on pricing and coverage. For example, local agriculture experts and farmers had deliberately opted for covering 30 percent of the value of crops in the early window and 70 percent in the late window based on the historically high probability of having a severely late end to the rainy season than that of the severely late onset of the rainy season. However, in 2015, the rains came very late and picked up in the second window. For this reason, although payments were triggered in the early window, the payouts were not of a significant amount as they were capped at 30 percent of the insurance value. After conducting several meetings with farmers, local staff, and the senior management team, a decision was made to activate the Basis Risk Fund. Guidelines were jointly developed for the management of this fund after carefully considering the eligibility criteria and payment calculations. It is important to note that given that the program focuses on the most vulnerable farmers located in marginal areas, developing viable index

insurance products for specific crops that are affordable and offer payouts at the frequency farmers demand is a challenge that R4 had to constantly manage.

These experiences reinforced the R4 strategy that recognizes that insurance alone is not adequate to manage risks and that other complementary risk management strategies are needed. Based on these experiences, the R4 team refined its basis risk strategy to look at various ways to mitigate and prepare for basis risk events.⁵²

Farmer training and consumer education, and appropriate infrastructure for marketing and distribution are key for the successful scale-up of insurance. Financial education and appropriate distribution channels for insurance play a critical role in R4 program delivery. The R4 model is complex and can be confusing for households, affecting uptake of interventions and satisfaction with the program. Given the technical complexities of financial products such as savings, credit, and insurance, repeated trainings and education sessions are necessary to ensure farmers understand those concepts, especially insurance, and are able to provide feedback on index performance at the end of each agricultural season. In addition, national infrastructure and capacities in designing and delivering index insurance products in rural areas are critical in successful scale-up of insurance programs. Experience from Ethiopia and Senegal provides useful insights on these operational aspects.

Evaluations in Ethiopia suggest that the insurance training to support farmer uptake of and benefits from the insurance program was insufficient. The 2016 evaluation in Ethiopia found that 65 percent of farmers who didn't buy insurance in that year say it is because they did not understand it.⁵³ The results from the 2012 evaluation and 2016 evaluation in Ethiopia showed an increase in the percentage of farmers who misunderstood insurance: 33 percent of farmers in the 2012 evaluation and 71 percent of farmers in the 2016 evaluation who purchased insurance said that weather index insurance offers a payout when yields are poor, which is incorrect.⁵⁴ A focus group discussion conducted in 2017 as part of the R4 Phase 2 feasibility study in Ethiopia also suggested that farmers did not understand the link between the satellite-based index system and insurance payouts.⁵⁵ Participants have requested more in-depth information on insurance systems and an improved communication and education strategy to accompany the R4 Initiative.⁵⁶ The 2016 evaluation in Senegal also highlighted the need for increased awareness of how insurance works as well as prompt payments of claims to increase farmers' confidence in the product.⁵⁷



Teklit Weldesilasie of Relief Society of Tigray leads a discussion with farmers in Metkel limat village of Samre woreda about their experience during the 2013 growing season. Geoff McCarney / International Research Institute for Climate and Society (IRI)

It is worth noting that as the program in Ethiopia expanded (from 3,000 farmers in five villages in 2010 to more than 29,000 farmers in 86 villages in 2016), reaching all the farmers with the same quality of training with limited field staff capacity posed challenges. As the program continues to scale up within Ethiopia and in other countries, it is important to consider the use of technology to efficiently reach farmers with quality trainings. The use of technology is particularly important for a program that seeks to demonstrate proof of concept at scale; the challenges of delivering iterative, high-quality training becomes increasingly complex during the transition from a small, high-touch pilot (under HARITA) to a large-scale operation (under R4, now and in the future).

In Senegal, the absence of appropriate distribution channels for insurance and the lack of local capacities in index design and marketing posed significant challenges in scaling up R4. Unlike Ethiopia, Senegal lacked the presence of microfinance institutions or cooperatives in remote areas to serve as stable delivery channels, which are critical for insurance and other financial services to reach the desired volume of participants. In 2015, Saving for Change associations facilitated by Oxfam and local implementing partner La Lumière were tested as a delivery channel for insurance and remained the main delivery channel as of 2017. However, the limited capacities of the associations meant that La Lumière had to continue supporting the reporting process and cash management. In addition, when R4 was launched in Senegal, the National Agriculture Insurance Company of Senegal (Compagnie Nationale d'Assurance Agricole du Sénégal, or CNAAS) was the only insurance company established by the Senegalese government with a mandate to address the agricultural insurance needs of the poorest rural communities.

However, CNAAS lacked the technical and management capacities to offer index insurance at scale. The program team soon realized that building national capacities is a much longer process than originally expected. In both Ethiopia and Senegal, R4 has made significant efforts through engagement with respective governments to create an enabling environment and market for index insurance by facilitating multistakeholder working groups and committees as venues for reflection, coordination of actions, and development of useful tools for the sector to better serve smallholder farmers.

Ensuring ongoing quality implementation of disaster risk reduction remained a constant effort. Although evaluations show that overall, R4's DRR activities conducted through insurance-for-work programs were impactful, maintaining program quality, providing adequate technical assistance, and ensuring sustainability remained a constant effort—particularly because R4 is built on other safety net programs and therefore relies on the capacities and systems of those programs. In addition, the overall labor burden on communities (which requires households to balance their own household work, plus the DRR trainings and activities, sometimes at conflicting times) offers important lessons for R4.

First, unpredictable funding in the early years of piloting and expansion of the R4 program prevented preplanning of DRR activities. The program was reliant on yearly funding commitments from donors, which led to negative consequences on program performance, particularly in the implementation of the insurance-for-work scheme. The budgetary uncertainty led to delays in the sale of insurance, and that meant delays in the implementation of the risk reduction activities every year. These delays gave farmers little time to plan their production decisions with insurance in mind. With delayed registration of insurance, the farmers had to work on DRR activities during the planting season when they should have been working on their own fields, and farmers also had to pay the cash portion of the premium when they needed to spend money on production inputs. This concern was raised by farmers in the 2012 Ethiopia evaluation and it reappeared in the 2016 evaluation when the program had significantly expanded. The delay in the availability of funds has also impacted implementation in Senegal, as reported in the annual impact reflection in 2015.⁵⁸ The insurance rollout process and the schedule of the disaster risk reduction activities has improved in subsequent years. It is also worth highlighting the program decision to focus on household-level on-farm activities that complement community assets supported through PSNP in Ethiopia. This focus ensures the effectiveness and sustainability of these activities and avoids duplication, given that farmers are involved in multiple labor-based programs.



A check dam constructed as part of the risk reduction activities in Tigray, Ethiopia.
Eva-Lotta Jansson / Oxfam America

Second, the DRR activities need to be better managed to improve quality and to ensure long-term maintenance. In Ethiopia, there is a wide range of overlap between the adaptation measures implemented under R4 DRR activities and those implemented by the Ethiopian government's Sustainable Land Management Programme. These measures include construction of check dams and percolation ponds to recharge groundwater, and are guided by an integrated water management plan developed for each watershed by the Woreda Watershed Team. Although there is close alignment of the measures with government plans, their implementation needs to be effectively supervised and requires quality management from technical experts from the Ethiopian government.⁵⁹ R4 should coordinate with the government to establish capacities for closer supervision to safeguard quality in rehabilitation of watersheds, as well as to ensure a long-term asset maintenance plan to support the community's ability to use and protect assets after the work is complete.⁶⁰

In Senegal, concerns were expressed by R4 participants during an annual impact reflection meeting regarding weaknesses in management of DRR activities. For example, some farmers who participated in the DRR activities claimed not to have received food and insurance vouchers as part of the food-for-assets and

insurance-for-assets programs, and there were instances of worker injury reported while on the DRR site.⁶¹ WFP has guidelines regarding supervision of community works, targeting and delivery of transfers (whether food, cash, or vouchers), and protection of participants. Utmost attention needs to be placed on following these guidelines to ensure adequate protection, safety, and childcare for participants. There must be adequate investment in high-quality DRR and adaptation works, and in advance planning to ensure that mechanisms are in place to provide protection and support to the participants who engage in these community-based programs.

Finally, more opportunities and spaces should be offered by R4 to seek community input on DRR activities. In Ethiopia, although farmers engage in planning risk reduction activities through the participatory vulnerability and capacity assessment tool used in R4, they have expressed a desire to provide more input to ensure that activities are appropriate for their communities; for example, male-headed households' interest in engaging in microgardening.⁶² The need for farmer feedback mechanisms is further discussed in the following section.

Mechanisms for gathering participant feedback can be improved. Inclusive participatory community processes in financial education, index design, and DRR planning have been a critical element of HARITA/R4's success in attracting increasing numbers of farmers to the program.⁶³ Several participatory internal processes, like annual impact reflections in Ethiopia and Senegal and the People First Impact Method in Senegal, were put in place to gather community perceptions on program outcomes and processes.⁶⁴

However, the R4 program team faced challenges in maintaining the level of high-touch community engagement and design as the program scaled up in each country from a few villages to multiple villages and regions. In other words, what's the best way to scale operationally without proportional increases in costs or compromising the quality of delivery? For example, in Ethiopia, as of 2016, farmers' cooperatives were conducting manual registration in their respective villages in Tigray, where the program was covering 80 villages with a staff of 11 microinsurance officers. Efforts were made to customize WFP's beneficiary information and transfer management platform, called SCOPE. SCOPE was designed for the WFP's cash transfer programs with R4's needs in mind, in order to pilot a digital registration process and a mobile-based solution to reduce feedback loops with farmers. However, the complexity of the R4 model and the additional indicators that needed to be tracked related to the four R4 components made it difficult to tailor the SCOPE tool. Low literacy levels and poor internet connectivity also posed challenges in rolling out a mobile-based registration system in Ethiopia.

Both of the evaluations conducted in 2012 and 2016 in Ethiopia found that farmers desire a clear, transparent system through which they can communicate feedback and receive responses related to disaster risk reduction activities, manage small insurance payouts, and avoid walking long distances required to receive payouts.⁶⁵ Establishing clear and safe communication channels through which farmers can offer feedback and ideas, and report any complaints is critical in ensuring the program is responding to farmers' needs and that it is not causing any harm to the communities it is serving. In recent years, WFP has made strides in establishing national complaint mechanisms in all countries, and it has progressed in establishing digital systems to support premium payments and claims settlements to reduce the time and distance for participants.

R4 needs to improve in measuring retention rates across years. Since the inception of HARITA and R4, both Oxfam and WFP put a strong focus on gathering evidence while trying to bootstrap an ambitious global initiative. Because the field of microinsurance and the development of a holistic risk management framework



At the close of a community-based participatory planning (CBPP) workshop, women from Kalbirom village in Senegal present the map they drew of their valley. Fabio Bedini / World Food Programme (WFP)

were new to both Oxfam and WFP, both organizations recognized that the monitoring, evaluation, and learning (MEL) processes for HARITA and R4 would be iterative, and therefore the MEL framework has evolved over time. The team had to constantly balance between a learning initiative designed to answer rigorous questions and an initiative striving for scale at a global level, with the constraints of cost, time, and layering R4 with other programs and partners. Despite limited financial resources, the program has managed to build a strong base of knowledge that has played a critical role in influencing global debates on resilience, climate adaptation, risk management, social protection, and humanitarian work.

That said, one critical gap in R4 monitoring and evaluation system remains. The program has not been able to effectively monitor and measure farmers' retention and drop-out rates in the insurance program. For example, registration in Ethiopia is performed using a paper-based system prone to human error. Farmers often enroll under the names of different household members in different years, meaning retention is not captured, even if it is in fact occurring. The program team had explored the SCOPE tool that would include assigning unique individual and household identifiers to improve the registration and retention tracking processes, with no success, as explained earlier. The 2016 evaluation of R4 in Ethiopia noted this limitation in the current monitoring system and highlighted the gap in information on the length of time for which a farmer has purchased insurance, which is critical for evaluation purposes.⁶⁶

Improved data indicators should track and publicly report on participation and retention rates across all four R4 components as well as gender disaggregation (including married and single participants), financial literacy, perception of the R4 components, and accessibility of feedback mechanisms.

R4 AND GENDER

Given the R4 Rural Resilience Initiative's overarching goal to improve resilience and livelihood security of the most vulnerable, understanding its impact on gender justice is critical to inform continued implementation. This section assesses the extent to which R4's design and outcomes effectively address the needs of women and men, and how they advance gender justice overall. It is important to note that evaluations occasionally disaggregate participant data by male- or female-headed households, but a comprehensive gender impact assessment of the program has not been performed.

Gender in program design: Gender has been a key part of the HARITA/R4 design. To help understand different needs of women and men, R4 national assessments performed prior to project launch in specific countries included gender considerations to facilitate gender mainstreaming into the needs assessment, design, implementation, monitoring, and evaluation of the program.⁶⁷ For example, the program's ability to reach the most vulnerable farmers, and particularly women, was evident in its very first year of piloting the innovative program model, with 22 percent of all female-headed households in the pilot village purchasing insurance that year versus 18 percent of all male-headed households in the village. Women are more risk-averse than men and are generally better savers and planners. However, they may be reluctant to purchase insurance because they have fewer financial resources and may see it as a risky investment. Once they understand insurance as a safe product, women are likely to be stable, long-term customers (as suggested in the initial demand study conducted by Oxfam and commissioned by the UN's International Labour Organization [ILO]).⁶⁸ HARITA accelerated women's understanding of and trust in insurance by ensuring farmers' voices were shaping the program design and by partnering with credible players. Today, the R4 program reaches more than 40 percent of women in Ethiopia to more than 85 percent of women in Kenya, as stated in the R4 2019 annual report.⁶⁹

The internal monitoring and evaluation framework of R4 includes elements of gender analysis that recognize the triple role of women in society: differential access to, control over, and ownership of assets; different quality of participation, basic needs and strategic interests between women and men; and all the economic, political and sociocultural factors that influence women's rights. Disaggregating data by integrating gender-sensitive indicators and applying qualitative and participatory research methods to highlight the impact and effectiveness of R4 on gender equality and equity were the standards laid out in the framework.

When the full R4 model was first articulated and tested in Senegal, gender was integrated in the design and planning processes. Conducting gender analysis and gender-sensitive participatory community assessments was part of the program implementation plan, and dedicated funds were allocated to ensure the analysis and assessments happened. The monitoring and evaluation efforts were intended to systematically include gender analysis to allow for program adjustments. The program team laid out specific approaches to ensure equal participation and access to R4 services by women and men, to ensure the program leveraged women's skills and knowledge in natural resource management, and to ensure the burdens and opportunities created by the project were equitable and appropriate. For example, DRR activities in both Ethiopia and Senegal were tailored to women's needs. The microgardening activity was prioritized to provide women an opportunity to remain close to home in light of the childcare and other housework that pose an obstacle for women to spend many hours away from home. In the Tigray region of Ethiopia, the program supported female-headed households with roof water harvesting, which not only complemented the microgardening activity through the supply of water, but also lessened the workload of women and girls by reducing the need to carry water from far away.⁷⁰ A limitation is that male-headed households do not have access to microgardening, despite these households' expressed interest in participating in this activity.⁷¹

The gender analysis conducted in Tigray, Ethiopia, in 2015 found that women participated in R4 activities at a comparable rate to men and did benefit from the program.⁷² For example, as noted



Women listen and take notes as villagers from Michael Debir in Ethiopia's Amhara region discuss weather patterns from the past three decades. R4 expanded into this region in 2013. *Geoffrey McCarney / International Research Institute for Climate and Society (IRI)*



Bady N'Dao coordinates the grain bank in his village, Kathiacoutou, in eastern Senegal. Participants in the R4 initiative store their grain here, using it as collateral for loans from a commercial bank, then sell it later in the year when prices are higher than just after the harvest.
Jane Hahn / Oxfam America

earlier, the DRR activities are tailored to female participants, and women are expected to do fewer DRR activities relative to men with the same compensation.⁷³ However, the analysis also noted that the local leadership roles are highly dominated by men due to prevailing social norms and unequal division of labor in the households. While R4 has advanced women's practical needs, it has not been able to support their strategic needs. The analysis also pointed out the need to better disaggregate gender-related data by separating women who are heads of household from those who are in male-headed households. Improved disaggregation will allow for the tracking of differential impacts on both groups, as women in male-headed households had minimal participation in program activities. Meanwhile, an internal WFP-Oxfam gender analysis conducted in the Koungueul, Tamba, and Kolda regions of Senegal in 2015 also suggested the need for specific approaches to address women's strategic needs; these were integrated in subsequent years with positive outcomes as indicated in the next section on program outcomes.

For the first time, in 2015, R4 integrated the Women's Empowerment in Agriculture Index (WEAI) in its monitoring and evaluation plan in Ethiopia; however, no program evaluations have been conducted since then to assess performance using

those indicators. In the same year, in Senegal, WFP initiated a thorough analysis of gender relations in local agricultural markets based on the Gender and Indicators kit developed by BRIDGE, a gender and development research service at the Institute of Development Studies (IDS). Future R4 evaluations should incorporate these indicators to understand whether and how the program is increasing women's leadership, autonomy, and decision-making in key aspects of their lives.

It is also worth noting that although the program had embedded gender considerations and standards in its design, ensuring gender-responsive implementation came with its own set of challenges. First, developing and implementing a monitoring and evaluation system for a complex, multidisciplinary, and rapidly evolving innovative program was not easy. Second, regular data collection on a diverse set of indicators in varied contexts requires dedicated resources, time, and capacities in countries. More recently, as noted in an internal review of the R4 program in Ethiopia, the organizational changes and interim funding gap led to team transitions and affected the recruitment and retention of female staff necessary for facilitating gender-responsive activities with communities. The internal review also noted the predominantly male staff in partners' offices.⁷⁴ To avoid program-

matic gender blind spots, particularly in considering the needs of women and girls, it is important to have female staff on the implementing team, equipped with sufficient resources.

Gender in program outcomes: The R4 Initiative's outcomes addressed the needs of men and women to varying degrees. The early HARITA evaluation in Tigray, Ethiopia, showed significant positive impacts on productivity outcomes for female-headed households in particular. Focus group discussions reveal that many female participants have been able to stop hiring others to sharecrop their land and are now cultivating it themselves. Female-headed households also increased their spending on hired labor and hired more oxen than both other insured farmers and nonparticipants.⁷⁵ These discussions also found that female-headed households in some districts in Tigray increased the amount of land they planted, as well as the amount of improved seeds and compost used.⁷⁶

These outcomes contributed to significant improvements in overall food security for female-headed households participating in the R4 Initiative. A 2016 evaluation in Ethiopia found that increased access to credit and work on microgardens during a severe drought in 2015 contributed to female-headed households in R4 villages experiencing a 26 percent smaller decline in the food consumption score than the decline experienced in control villages from 2013 to 2016.⁷⁷

In Senegal, in 2016, R4 participants surpassed nonparticipants in crop production, particularly rice production, which is typically practiced by women. This result is largely explained by R4's gender-sensitive activities as part of the risk reduction component—including developing lowlands and adapting them for rice production. These activities enabled some villages to start producing rice in their valley after a seven-year hiatus caused by the lack of appropriate asset maintenance and adapted seeds.⁷⁸ However, increases in crop production are generally much higher for male-headed households as indicated in the 2016 evaluation in Senegal. In terms of women's decision-making and financial autonomy, R4 in Senegal has showed positive impact. As the 2016 Senegal evaluation suggests, decision-making responsibility among women in participating household has improved even though formal household leadership continues to be dominated by men in both participating and nonparticipating households. The study also highlighted the need for targeted support to women and to illiterate heads of households to speed their recovery from shocks.⁷⁹

The savings components were also designed with female participation in mind. The savings programs in Senegal, for example, operate through pre-established community groups traditionally dominated by women.⁸⁰ This setup resulted in women constituting the majority of participants in Oxfam's Saving for Change and WFP's Food for Assets components in some Senegalese communities.⁸¹

Savings outcomes for female-headed households were also positive in Ethiopia since the introduction of savings and credit components to the R4 Initiative in 2014. In one Ethiopian district, the amounts borrowed by R4 participants increased 255 percent more among female-headed households than control households.⁸²

The gender analysis conducted in 2015 in the Tigray region of Ethiopia found that the average payout received by farmers over the course of the R4 Initiative was 412 birr (equal to roughly \$20 in that year). The average payout broken down by gender was 492 birr for male-headed households, compared with only 288 birr for female-headed households.⁸³ Because payouts are based on the value of insurance the farmer purchased, this difference may suggest that female-headed households don't purchase as much insurance coverage as male-headed households do.

Achieving gender justice: The evaluations suggest that R4 has contributed to women's empowerment in a number of ways, including increased decision-making and financial autonomy, increased access to assets and resources, and increased confidence, as well as increased solidarity and trust among communities.

According to a study conducted by the Institute for Development Studies (IDS) in Senegal, female participants expressed that they felt empowered; enjoyed increased access to land, seeds, and water for irrigation and drinking; and benefited from training in numeracy, literacy, and business. Having more food and water available also meant that they no longer had to travel far from home to fetch water, with consequent gains of time to spend with their children or work on their small businesses. The study found a reduction in stress, as women are more confident about their ability to feed their children, as well as pay school fees and cover other expenses through small financial gains from selling their surplus crops.⁸⁴ The Saving for Change methodology in R4 provided an opportunity for women to come together, to save, and to acquire small loans to engage in income-generating activities such as rice farming, peanut farming, vegetable cultivation, and small trade. These social groups served as the basis for social cohesion and solidarity.⁸⁵

The IDS study and a subsequent analysis performed by Oxfam America suggest that best practices developed through the R4 initiative include the following:⁸⁶

- **Equal participation of men and women in community-based participatory** planning (CBPP) processes and management committees at the village level, leading to better targeting and more accurate identification of needs. The division of labor is made on a consensual basis, with men devoted to tasks that require more physical strength.
- **Inclusion of activities that explicitly target women** to improve their economic opportunities, such as the development of vegetable gardens, the expansion and improvement of rice cultivation, and the creation of savings groups.
- **Inclusion of men in activities traditionally reserved for women** such as the savings groups, which allowed household resources to increase and stabilize.

However, in Ethiopia, the initiative primarily focuses on women in female-headed households, failing to include the female spouses of male-headed households. Women in male-headed households do not participate in insurance trainings, for example. In fact, married women's direct involvement across all four of R4's risk components is minimal in Ethiopia.⁸⁷ While women in female-headed households have the power to make their own decisions and financial plans, women in male-headed households often do not have the opportunity to attend training sessions, access financial information, or participate in savings groups. This disparity is a significant shortcoming in the R4 Initiative's pursuit of gender justice.

R4 is implemented across a spectrum of socioeconomic and cultural landscapes, which poses unique opportunities and challenges from a gender perspective. Although progress is being made at different levels in the different contexts to furthering gender equality, the R4 team is aware of the challenges facing women that should be considered as the program continues to grow. More specifically, the unequal division of labor and care responsibilities within households due to prevailing negative social norms continues to constrain women's time and energy for economic activities. Second, higher illiteracy rates combined with their disproportional effects on financial decision-making processes pose greater barriers to women's ability to access profitable income-generation opportunities. Specifically, in Ethiopia, due to lack of education, lack of leadership opportunities, adverse social norms, and lack of trust and support from their spouses, women are yet to meaningfully participate in leadership roles.⁸⁸ There is room to integrate gender-transformative approaches and tools that facilitate

dialogues between spouses regarding household care work, and to incorporate tools and trainings that promote women's transformative leadership to address these barriers and enhance the role of women in leadership and their influence in the community.

R4'S ROLE IN INFLUENCING POLICY AND PRACTICES AT THE GLOBAL AND NATIONAL LEVEL

From the inception of the program, Oxfam and the WFP complemented R4 implementation work with policy-influencing efforts aimed to increase scale and impact. Partners recognized that the key to ensuring the sustainability of the R4 model was through the creation of an enabling policy and regulatory environment. Local implementation of the R4 Initiative has influenced policy and practice at the national and global levels. Though there has not been a systematic review of the initiative's policy influence, anecdotal examples in Senegal and evidence of national-level policy wins in Ethiopia demonstrate success in this area.

At the national level, the R4 model informed the government of Ethiopia's Disaster Risk Management Strategic Program and Investment Framework, and the Ethiopian government included weather index insurance in its climate resilience strategy policy document.⁸⁹ Oxfam and WFP facilitated the establishment of a national Index Insurance Working Group (IIWG) to support the public and private sectors in developing national capacity for insurance provision. As a result, national insurance companies have started offering index insurance outside of the R4 Initiative. The IIWG was used to share experiences, build capacity, and promote policies that support program sustainability.⁹⁰ The Ethiopian government also began a new credit program to complement efforts to increase credit access started under R4. Farmers have praised early implementation of this government program for substantial loan amounts, low interest rates, and straightforward application procedures. At the time of the 2016 R4 evaluation, the Ethiopian government planned to invest \$424 million in the next five years in credit services.⁹¹

In Senegal, R4 collaborated in 2015 with the government's National Delegation for Social Protection (Délégation Nationale à la Protection Sociale) to revise its National Social Protection Strategy. It was an opportunity for R4 to integrate its risk management model within the national strategy and to ensure the extension of the government's social protection mechanisms in rural areas. Oxfam was part of an interministerial committee for political validation of the national strategy under the prime minister. With the Délégation Nationale, Oxfam and WFP set up

a committee to integrate all recommendations and to create an action plan to address the main issues raised during the national and regional meetings.

At the global level, the innovative model and early success of the R4 Rural Resilience Initiative in Ethiopia and Senegal have motivated conversations about risk management for smallholder farmers worldwide. The initiative informed the development of the comprehensive climate risk management approach that underpins the United Nations Framework Convention on Climate Change (UNFCCC) Warsaw International Mechanism for Loss and Damage. R4 has also informed the International Finance Corporation's (IFC's) Global Index Insurance Conference and informed the broader global agenda for climate action as a regular feature during UN Climate Change Conference of Parties (COP) side events, promoting private sector innovation in resilience building and demonstrating linkages between disaster risk reduction and social protection.⁹² In recognition of these efforts, the initiative was showcased in seven side events at COP17 climate change negotiations in December 2011 in Durban, South Africa, including as one of the 10 "lighthouse activities" featured in the UN's Momentum for Change Initiative.⁹³

It is worth noting that R4 is being funded in large part by climate finance. The first phase of R4 in Senegal was funded by USAID as part of the US government's Fast Track Climate Finance commitment, and similarly by the Norwegian Ministry of Foreign Affairs. The Green Climate Fund has funded the second phase of R4 in Senegal and the KfW Development Bank funding comes from the InsuResilience Solutions Fund. The expansion of R4 in Malawi and Zambia is supported by the Swiss Agency for Development and Cooperation under Switzerland's climate finance commitment. This diversity of global funding is made even more impressive by the preponderance of local actors that lead and implement the initiative. R4 relies on leadership from local actors like REST to ensure that local context and knowledge on climate change risks and impacts inform each component.

R4's local-to-global influence has also shaped international partner program design. Perhaps the most obvious example of this success is WFP's involvement: WFP has adopted R4 in its regular programming and continues to expand R4 to additional countries across Africa. Oxfam America contributed to this successful uptake and scale-up by working collaboratively with WFP and finding synergy across implementation schemes. Other international NGOs—for example, CARE and the Japan International Cooperation Agency—have also been influenced by R4 design and outcomes.⁹⁴ This influence will likely have global repercussions and has the potential to impact farmers' lives on a scale much wider than the R4 Rural Resilience Initiative can reach alone.



Representatives of the Senegalese government and members of the donor community attend an R4 simulation in Dakar, Senegal, in March 2013. Here, attendees participate in a panel discussion. *Mansi Anand / Oxfam America*

PART 2: ANALYSIS OF R4 AS A STRATEGIC PARTNERSHIP

MECHANICS OF BUILDING THE PARTNERSHIP

The HARITA program and the R4 Rural Resilience Initiative were built on complex and unique partnerships that brought together interdisciplinary teams from the private sector, civil society, government, and research institutions. The early history of R4, including how Oxfam initially pursued HARITA as an opportunity to engage with the private sector outside of the campaigning work for which it was best known, is recorded in two other publications.⁹⁵ Table 1 captures key milestones in the program's evolution.

Oxfam's original goal was to design and test an insurance instrument as part of a holistic risk management approach that would be scalable and that would empower farmers in developing countries to adapt to climate change.⁹⁶ Oxfam's objective was to catalyze systemic change by linking an innovative idea (insurance for work) to an enabling policy environment (national safety nets) through unique partnerships. And as noted in an externally commissioned review, one of the innovative contributions of HARITA was that it represented a new kind of complex partnership that "requires the presence of ... an organization, such as [Oxfam America], that can play a strong catalytic and coordination role."⁹⁷

Through HARITA, Oxfam demonstrated its power to convene diverse partners. However, Oxfam also recognized that bringing the HARITA model to scale would require collaboration with institutions that had the mandate and resources to expand to multiple countries. It was also clear from the HARITA experience that for such a program to be sustained in the long term, it would

require working with national governments and large-scale safety net programs. There was no better partner than the World Food Programme in taking the program forward.

The strategic partnership between Oxfam and WFP was formalized in a 2011 memorandum of understanding (MOU) with a five-year time frame, and the partnership eventually led to the program's expansion to seven countries. Oxfam's original vision was that five years would be required to test the R4 model, and if R4 were successful, it would be integrated into WFP operations—at which point Oxfam would step back, affirm the successful creation of the program, and move forward with other innovations. However, over time, the program goals and policy priorities of both WFP and Oxfam evolved. In the absence of a clear exit plan, Oxfam remained engaged with R4 until a joint decision on program transition was made in 2019, which led Oxfam to undertake a responsible exit process in consultation with WFP. This document is a step in that exit process.

The subsequent sections of Part 2 of this report delve into the strengths and weaknesses of the R4 partnerships and how the partner organizations have changed and evolved through their engagement in R4. These sections draw from qualitative interviews with current and former R4 staff and stakeholders.⁹⁸ All quotations that appear in this section are taken from those interviews but remain anonymized.

Medhin Reda, a single mother of three, was an early participant in HARITA in 2009, paying for insurance on her teff field by working on community projects instead of paying cash. "It's good for me to have the insurance as long as I can pay with labor. It's the only asset I have."
Eva-Lotta Jansen / Oxfam America



TABLE 1: HARITA/R4 EVOLUTION TIMELINE*

EARLY 2007	Oxfam America’s newly formed private sector department (PSD) begins exploring how to engage with corporations on programming work, efforts distinct from Oxfam’s history of campaigning and advocacy work.
FALL 2007	HARITA is conceived, and Oxfam America, the International Research Institute for Climate and Society (IRI), and the Relief Society of Tigray (REST) visit Adi Ha, Ethiopia, to explore the potential for microinsurance and gauge the community’s interest in a pilot.
WINTER 2007	Oxfam America commissions a microinsurance demand study in Adi Ha to assess the viability of launching a pilot.
SPRING 2008	With farmers’ backing, Oxfam America contracts IRI to draft a prototype weather index insurance contract.
JULY 2008	Oxfam America and Swiss Re consolidate their collaboration, and HARITA implementation begins, with a pilot serving subsistence farmers in a village in the northern part of Ethiopia.
MAY 2008	The HARITA design team, consisting of representatives from the community, local stakeholder organizations, and Oxfam America, launches to promote a participatory design process.
MAY 2009	The project rolls out in Adi Ha, and participant enrollment is conducted in Adi Ha with financial literacy training. The implementation is led by REST with several other public and private partners.
JUNE 2009	A study is designed and conducted to develop and test a means for evaluating the impact of the index insurance on the farmers of Adi Ha by Columbia University with a field team at REST.
AUGUST 2009	A study is conducted to gain qualitative data about farming issues and coping strategies.
SEPTEMBER 2009	At the Clinton Global Initiative Annual Meeting in New York, Oxfam America, Swiss Re, the Rockefeller Foundation, and IRI at Columbia University announce a joint commitment to action to help communities in drought-prone Ethiopia improve their food and income security.* The Rockefeller Foundation states its interest in “promoting market-based solutions to address development problems and in building resilience.” ¹
JULY 2010	HARITA enters its second year with expansion to five villages and 1,300 farmers, including four more villages in the Tigray region: Genetie, Hade Alga, Hadush Adi, and Awet Bikalsi.
DECEMBER 2010	Oxfam America and the World Food Programme (WFP) announce the R4 partnership at the United Nations Climate Change Conference (UNCCC) and seek \$28 million from public and private investors for their groundbreaking five-year partnership to help smallholder farmers protect their livelihoods from the impact of climate change.
MAY 2011	HARITA expands from five villages to 43 villages in the Tigray region of Ethiopia.
JULY 2011	Oxfam America and WFP enter into a five-year strategic partnership on the R4 Rural Resilience Initiative through a memorandum of understanding.

*Note: Timeline is indicative of key R4/HARITA moments and is not exhaustive.

SEPTEMBER 2011	US Agency for International Development (USAID) announces an \$8 million award to WFP to support the expansion of R4 to Senegal.
NOVEMBER 2011	Swiss Re formally joins Oxfam America as a founding sponsor for R4 through a five-year commitment with a \$1.25 million contribution over five years and technical leadership in the field of insurance and re-insurance. HARITA has its first successful payout to affected policyholders: 1,800 farmers in seven villages who experienced drought conditions receive a share of \$17,392 in payouts.
DECEMBER 2011	R4 is showcased in seven side events at the Paris Climate Conference (COP17) climate change negotiations in Durban, South Africa, including as one of 10 “lighthouse activities” featured by the UN’s Momentum for Change Initiative for their transformational approach to mitigation and adaptation. [‡]
MAY 2012	The Rockefeller Foundation renews its support to Oxfam by committing \$450,000 to expand R4 in Senegal.
DECEMBER 2012	The largest payouts in the history of weather index insurance programs are triggered through HARITA; farmers receive a share of the total \$322,772 in payouts to help cover crop losses as a result of drought conditions.
JANUARY 2015	The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) releases the report <i>Scaling Up Index Insurance for Smallholder Farmers: Recent Evidence and Insights</i> , which features R4.
2015	WFP expands R4 to Malawi and Zambia with support from the Swiss Agency for Development and Cooperation (SDC), the UK’s Department for International Development (DFID), the Flanders International Cooperation Agency (FICA), and the Korea International Cooperation Agency (KOICA). Payouts in 2015 total \$450,000.
JANUARY 2017	R4 is highlighted at the 2017 World Economic Forum held in Davos, Switzerland, as an innovative step to respond to climate crisis risks.
2017	WFP expands R4 to Kenya with support from the Canadian International Development Agency (CIDA). Payouts total \$1.5 million.
2018	WFP expands R4 to Zimbabwe with support from SDC, USAID, and France. Payouts total \$590,000. InsuResilience Global Partnership releases the study “Applying a Gender Lens to Climate Risk Finance and Insurance,” featuring R4. ^{**} World Bank Group releases the report “Private Sector Solutions to Helping Smallholders Succeed,” featuring R4. ^{††} Microinsurance Network releases the report “The State of Microinsurance,” featuring R4. ^{‡‡}
MAY 2018	Poor rainfall triggers the largest insurance payout to date, with nearly 30,000 vulnerable farmers participating in R4 receiving compensation for a total of \$1.5 million for weather-related crop losses in Ethiopia, Kenya, Malawi, Senegal, and Zambia.

* Clinton Foundation/Clinton Global Initiative, “Horn of Africa Risk Transfer for Adaptation (HARITA): Commitment by International Research Institute for Climate and Society, Swiss Re, Oxfam America, The Rockefeller Foundation,” 2009, <https://www.clintonfoundation.org/clinton-global-initiative/commitments/horn-of-africa-risk-transfer-adaptation-harita>.

† As Rockefeller Foundation President Judith Rodin stated in a news release following the New York meeting: “The Rockefeller Foundation is proud to support the efforts of Oxfam and Swiss Re as we help protect smallholder farmers from the devastating impacts of climate change. As the climate crisis jeopardizes agricultural yields and food security, vulnerable communities around the world will need innovative insurance products to strengthen their resilience. This pilot represents important progress toward developing and expanding access to them.” See Earth Institute/Columbia University, “Improving Financial and Food Security for Farmers in Northern Ethiopia: Swiss Re, Oxfam America, Rockefeller Foundation and Columbia’s IRI Expand Joint Risk Initiative in Tigray, Ethiopia,” news release, September 25, 2009, https://www.eurekalert.org/pub_releases/2009-09/teia-ifa092509.php.

‡ Helen Greatrex, James Hansen, Samantha Garvin, Rahel Diro, Sari Blakeley, Margot Le Guen, Kolli Rao, and Daniel Osgood, *Scaling Up Index Insurance for Smallholder Farmers: Recent Evidence and Insights*, CCAFS Report 14 (CGIAR Research Program on Climate Change, Agriculture and Food Security [CCAFS], 2015), <https://ccafs.cgiar.org/publications/scaling-index-insurance-smallholder-farmers-recent-evidence-and-insights#.X1p-fnlKg2x>.

** Katherine S. Miles and Martina Wiedmaier-Pfister, *Applying a Gender Lens to Climate Risk Finance and Insurance* (InsuResilience Global Partnership, 2018), <https://www.insurilience.org/applying-a-gender/>.

†† Elaine Tinsley and Natalia Agapitova, eds., *Private Sector Solutions to Helping Smallholders Succeed* (World Bank Group, 2018), <https://openknowledge.worldbank.org/bitstream/handle/10986/29543/124304-WP-PUBLIC-AgriBookMar.pdf?sequence=1&isAllowed=y>.

‡‡ Microinsurance Network, *Inclusive Insurance for a Sustainable Future*, themed issue of *The State of Microinsurance: The Insider’s Guide to Understanding the Sector: Microinsurance Network’s Annual Journal 4* (2018), https://microinsurancenetwork.org/sites/default/files/SoM_2018_WEB_final.pdf.

PARTNERSHIP STRENGTHS

The intervention design emerged from direct engagement with smallholder farmers. HARITA had committed to put the needs of smallholder farmers at the center of the program design, and the plan took into account the risk that innovative private sector partnerships can be co-opted and that the focus on vulnerable people might be lost. Strong relationships with local partners, the use of simulation games (in Ethiopia) and climate risk analysis through seasonal livelihood planning (in Senegal) to engage communities in the design phase, and an enduring commitment to revise the R4 model on the basis of feedback from communities were all cited by interviewees as important elements in ensuring program participants remained at the forefront.

The programs brought “best of the best” partners together.

Each of the partner organizations contributed a unique set of strengths, and under HARITA, Oxfam used its convening power to “bring the right right people together but also keep the focus of the work on the most vulnerable,” as one interviewee described the process. The initial partnership between Oxfam and Swiss Re was an opportunity to demonstrate a new type of collaboration with the private sector that could serve the needs of smallholder farmers while leveraging the capacity of a large corporation. As Marjorie Brans, former Oxfam senior policy advisor, expressed in an external interview, “I’d been at Oxfam a few years and had just joined its newly established private sector department. I wanted to show that it was possible to bridge the gap between very impoverished farmers and the commercial needs of a large company in a way that would be win-win.”⁹⁹ In contrast, Swiss Re saw the value Oxfam brought through its strong presence at the grassroots level and through the mechanisms it employed to communicate with farmers to understand their needs. Oxfam provided a resource that would allow Swiss Re to assess the viability of insurance products in a rural setting.

Under HARITA, Oxfam partnered with Columbia University’s International Research Institute for Climate and Society (IRI), which delegated a four-person team to assess the feasibility of a weather index crop insurance program in Ethiopia and offered technical expertise to develop the weather index.¹⁰⁰ The Relief Society of Tigray (REST), the largest NGO in Ethiopia, served as a key implementing partner for HARITA. Other national partners included private Ethiopian insurer Nyala Insurance; Dedebit and Credit Savings Institution, the second-largest microfinance institution in Ethiopia; Mekelle University, which provided agronomic expertise and research; the Ethiopian National Meteorological Agency (NMA), which provided technical support in weather and climate data analysis; the Tigray Regional Food Security Coordination Office, which oversaw the Ethiopian government’s Productive Safety Net Programme (PSNP) in the pilot area; the Tigray Cooperative Promotion Office, which helped organize farmers at the village level; and the Institute for Sustainable Development (ISD), a research organization dedicated to sustainable farming practices.¹⁰¹



Farmers engage in participatory mapping exercise as part of the community based participatory planning (CBPP) in Kouthiakoto, Senegal.
Fabio Bedini / World Food Programme

Under R4, several interviewees noted that Oxfam and WFP had natural “swim lanes” and good complementarity. Oxfam had experience in access to finance, savings, and agriculture programs—and the willingness to experiment with new approaches, particularly in terms of private sector partnerships. WFP’s capacity in social protection, labor-based programming, index insurance, and disaster risk reduction, as well as its global reach and ability to implement at massive scale in partnership with governments, ensured from the start that R4 would be well positioned to replicate and reach new regions.

Within these agencies, the partnership was driven by entrepreneurial, motivated individuals who collaborated closely. Those close collaborations drove “a virtuous cycle of internal advocacy,” in which R4 drew the attention and support of senior leadership at both WFP and Oxfam. In addition, the formalization of the partnership through an MOU with a five-year time horizon provided enough runway for planning, implementation, and visioning.

Other best-in-class partners, including Swiss Re, REST, and IRI, delivered critical strengths on reinsurance, program implementation, and weather index design, respectively. Swiss Re, which was particularly interested in the R4 program’s potential for scale and for delivering a product that would be commercially viable by reaching millions of smallholders, was lauded by several interviewees for its strong internal capacity and commitment to ethical work. Swiss Re’s five-year commitment to R4 was equally critical in making R4 a financially viable business model. The shared interests of Oxfam, WFP, and Swiss Re served as a “strategic lever” for the successful scale-up of R4, and the program became popular with donors and policymakers—particularly as a model for policy engagement in climate change negotiations.

The partnership’s early ways of working embedded a “one team approach”—and several staff moved among partners later in their careers. Several interviewees recalled with nostalgia early meetings and collaborative work. For instance, one noted: “In Senegal, ... there was a period of time when

the team would actually work together and alternate week by week in each other's offices. That joint work is how you make the partnership efficient, and otherwise you wind up with gaps that are too hard to bridge." This joint work ensured that the two teams really understood each other: culture, constraints faced, and context (political, strategic, and managerial). Another interviewee cited an example from Ethiopia: "I remember when we were all working together at the Oxfam Ethiopia office one night, staying there late to make sure that we had the field-level agreement up and running. We worked really well together, despite being from two different organizations and several different countries. We were working as one, regardless of where our payroll was coming from. We were very committed." Another interviewee said, "It was a partnership between committed individuals who trusted the idea and wanted to see it through." These strong relationships presented opportunities for R4 as a program, but also for staff as their careers evolved. At least five R4 staffers started at one partner organization and eventually worked for another; this cross-pollination across teams served the partnership well.

The joint approach to fundraising and managing funds between WFP and Oxfam attracted donors to the program.

A joint fundraising approach shared by WFP and Oxfam was popular with donors, and as the R4 program drew attention, it also attracted additional external funding. Both WFP and Oxfam were committed to mobilizing internal resources as well, reallocating funding when necessary to ensure program continuity. There were times when both organizations covered for each other to fill critical funding gaps. Later in the program's evolution, such support became more fraught. As one interviewee pointed out: "There was [later on] a decision to fundraise separately, which meant that one [agency] was successful and another wasn't, and then the unsuccessful one loses capacity and human resources. That created a gap that was impossible to fix, and we have to be very clear from the beginning, so that these problems don't arise."

The programs featured early commitment to robust monitoring, evaluation, and learning (MEL); documentation of the program's impacts; and a willingness to learn and adapt.

The initial evaluation conducted by Columbia University's Malgosia Madajewicz, using a difference-in-difference approach (using observational data to mimic an experimental design), was critical for demonstrating the program's impacts without entailing the much more significant cost of conducting a randomized control trial. With a handful of exceptions, program staff saw evaluations as a learning opportunity, rather than as an accountability exercise, and they were, as one interviewee put it, "thinking about how to be innovative—eager to explore, evaluate, and understand."

PARTNERSHIP WEAKNESSES

Shifting capacity among partners, driven by organizational change, loss of staff, and gaps in institutional memory.

With organizational change processes and staff turnover, the shared vision that had been so critical to the WFP-Oxfam partnership in the early phases began to diminish over time. Organizational priorities also shifted, and within Oxfam, the program moved teams several times. As the program expanded to new regions, the global team had worked out various scenarios to manage the mismatch between Oxfam and WFP's geographic priorities and to maintain the shared vision under different operating models. However, shared visioning and close day-to-day working relationships eroded as some of the early staff members who had been so key to the launch of R4 left their roles. Together, these waves of change resulted in a loss of both critical capacity and historical knowledge of R4. These shifts meant that R4 operations at WFP and Oxfam, both at the country level and in headquarters, became less integrated—leading to hampered communications and misunderstandings—exacerbated by poor internal handovers.

Fading vision of the future regarding the respective roles of WFP and Oxfam.

As noted earlier, the initial agreement was that Oxfam and WFP would partner for the first five years to develop proof of concept of the R4 model—and then Oxfam would exit the program, and WFP would continue to expand it in new countries over time. However, Oxfam never had an actual exit strategy for R4. The partnership didn't document what such a transition might look like (criteria—scale, funding, other milestones—for how the partnership might evolve and eventually conclude were not specified). A deeper challenge was maintaining a long-term strategic partnership in a noisy institutional environment where WFP and Oxfam's policy and program priorities were constantly evolving. The shifting priorities affected the role and rationale of the partnership. In the absence of an exit plan or handover strategy, and with changing leadership within both organizations, the partnership continued, although in a weakened state, and also continued to pursue additional joint funding opportunities, "unwilling to give up on the potential of the partnership" as one interviewee put it. The R4 Strategic Advisory Board could have helped the partnership navigate some of these challenges by providing a sense of perspective and guidance on future direction, but several interviewees noted that this board wasn't convened regularly enough or wasn't empowered to provide sufficient direction.

A loss of trust and shared understanding in the partnership's later ways of working.

Relationships eroded over time, compounded by decentralization in both WFP and Oxfam, and volatile funding over the years (despite the program's overall success). Communication—once fluid and collaborative—grew murkier. As one interviewee said, regarding the dynamics between WFP and Oxfam, "It wasn't always clear what they

wanted—and we weren't always clear what we wanted, either." As both organizations devolved greater power to country offices, the global coordination burdens of an HQ-level partnership became increasingly complex and time-consuming to manage. Additionally, Oxfam was not well positioned to follow WFP to new regions, because not all of Oxfam's country offices had the strategic alignment or technical capacity to take on R4 implementation. This mismatch led to a divergence in program operations, with Oxfam remaining engaged in Ethiopia and Senegal, and WFP bringing the program to an additional five countries.

Given R4's innovative approach, no "natural home" for the program within Oxfam's structure. As one interviewee noted, "The program didn't fit neatly into the usual buckets, which is a good thing, but also made it harder from a scaling perspective." Within Oxfam, the program transitioned from the private sector department (which sat within the policy division) in the early, incubation phase, to community finance (within the programs division), given the savings and credit components, and then, more recently, to the newly formed women's economic empowerment team (within the food systems theme).

CONCLUSIONS AND LESSONS LEARNED

All of the participating institutions were impacted in some way by their role in R4: taking on better-integrated resilience work, engaging in more-sophisticated private sector partnerships, and gaining capacity. For WFP, participation in R4 changed both the agency's model of policy and practice, and its understanding of what partnerships could accomplish. R4 has helped WFP develop, test, and scale up a more comprehensive climate risk management approach that incorporates novel strategic partnerships and new, more-effective tools, including insurance, risk reserves, and financial inclusion. Other partners similarly noted that R4 played a role in making resilience work more integrated, and that it provided thought leadership that the rest of the development field is now following.

Developing proof of concept and building relationships takes a long time—and so institutions must be prepared to take a longer-term view and be patient. Typical development program cycles of three to five years don't allow the space to build something transformational, and R4 is an example of how to do that over nearly a decade. In addition, several interviewees pointed out the importance of being willing to take risks and being comfortable with ambiguity—both necessary success factors for strong partnerships. In addition, as highlighted earlier, long-term partnerships also require maintaining aligned interests across diverse stakeholders.

Trust, clear ways of working, and open communication are critical. As one interviewee noted: "It is so important to ensure that incentives are aligned from the start. There will always be bumps in the road, and so people who are tasked with holding certain relationships must have lots of trust, get along well, and have good energy. It's also important to get as much out on the table as possible in terms of expectations."

Partnerships like R4—between a UN agency, an NGO, the private sector, and many others—have the capacity to deliver truly innovative work. Most interviewees reported that they had never worked on anything quite like R4 before or since, and they remained impressed by the scale of the initiative's accomplishments and future potential. For innovation to happen, one interviewee said, "People have to be willing to move out of transactional partnerships, focused on 'What money can I dole out and what reporting can I get back?'" and must also be willing to partner in unlikely ways. Fundamentally, it is hard to create these kinds of collaborations. "The default mechanisms favor things that are easier, faster, and less transformational," explained another interviewee. At their best, partnerships like R4 leverage strong intra-institutional commitment, aligned agendas, and committed, intrapreneurial staff (who behave creatively, like entrepreneurs, within large institutions).

Exit strategies and transition plans are essential—particularly in multistakeholder partnerships where organizations are likely to face different constraints over time.

As noted, Oxfam's original vision was that it would take five years to test the R4 model, and, were the model successful, it would be integrated into WFP operations—at which point Oxfam would step back, recognize success, and move forward with other innovations. But the specifics of how departing would happen became less clear over time. Partners must know when to "declare victory and move on," said one interviewee. Another interviewee noted that "it becomes so much harder to unwind things when you have lots of partners and lots of different interests." And a third added, "The difficulty is how you prioritize exit when the pressure is to deliver on new things." Responsible exits take time and resources to properly navigate, and internal pressure may incentivize delivering on new initiatives or maintaining existing ones, rather than bringing successful work to a close.

Gebru Kahsay, bought \$15 worth of insurance for the teff crop he planted in 2009 in Adi Ha, in Tigray, Ethiopia. It was just coming up in early August, and he examined the new shoots with his grandson, Aregawi Mulugeta, 7. *Eva-Lotta Jansson / Oxfam America*



CONCLUSION

As the costs of climate change are increasingly borne by the world's most vulnerable people, R4 offers important lessons in three key ways: (1) as an illustration of meaningful collaborations on complex development interventions, (2) as a model for investment in climate risk management and adaptation for those facing the most severe deficits, and (3) as an example of addressing inequality and reducing human suffering through a coordinated suite of interventions. In a recent report by the UN special rapporteur for human rights and the environment, R4 has been identified as good practice in human rights and climate change adaptation.¹⁰² The report refers to the initiative as "an integrated package of gender-responsive financial services and community assets to address climate variability and extreme weather," and the report acknowledges the demonstrated positive impacts of the program on vulnerable communities, including "productivity gains and reduced food shortages."¹⁰³ This testament to R4's decade-long legacy provides much for the initiative's partners to be proud of and suggests exciting possibilities for the future under WFP's stewardship.

NOTES

- 1 World Food Programme (WFP) and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016* (2017), https://s3.amazonaws.com/oxfam-us/www/static/media/files/R4_AR_2016_US_Letter_size_WEB.PDF.
- 2 Ibid.
- 3 Ibid.
- 4 Worldwide Influencing Network, *WIN Case Study, Ripple Effects: Influencing Policies and Practices through the R4 Rural Resilience Initiative in Ethiopia* (2016).
- 5 Michael Bamberger, *Measuring Resilience: Lessons from the Design and Implementation of Monitoring and Evaluation Methodologies of the Horn of Africa Risk Transfer for Adaptation (HARITA)/R4 Rural Resilience Initiative* (Rockefeller Foundation and Oxfam America, 2014), <https://www.oxfamamerica.org/explore/research-publications/measuring-resilience-r4-case-study/>.
- 6 World Food Programme (WFP) and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2018* (2019), https://www.wfp.org/publications/2018-r4-rural-resilience-initiative-annual-report?_ga=2.214114071.1495795326.1585261829-1699380079.1585261829. Dollar amounts represent US dollars unless otherwise noted.
- 7 Ibid.
- 8 Emma Fawcett, *Oxfam America’s Exit from R4 in Ethiopia: Evaluative Review of Partnerships, Lessons Learned, and Next Steps*, internal review (Oxfam, 2020).
- 9 Bamberger, *Measuring Resilience*.
- 10 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2018*.
- 11 Caroline Andridge, *Ten Years of the R4 Rural Resilience Initiative: An Examination of Program Impacts in Ethiopia and Senegal from 2009 to 2018* (Oxfam America, 2020).
- 12 The initial draft of this report was shared with the R4 stakeholders through a “reunion” webinar in March 2020. The purpose of the webinar was to communicate the changes in R4 operations to the program stakeholders with Oxfam transitioning from day-to-day operations and WFP taking over the management and scale-up of the program globally. The webinar also created a space for R4 colleagues to come together to share fond memories of the R4 program, an important step in Oxfam’s responsible exit from the program.
- 13 Andreas Bollmann and Fritz Schulleri, *Rural Resilience Initiative (R4) Feasibility Study for a Potential Support of the German Government for the Scale-up Phase* (KfW Development Bank, 2017).
- 14 Malgosia Madajewicz, Asmelash Haile Tsegay, and Michael Norton, *Managing Risks to Agricultural Livelihoods: Impact Evaluation of the HARITA Program in Tigray, Ethiopia, 2009–2012* (Oxfam America, 2013). https://s3.amazonaws.com/oxfam-us/www/static/media/files/Oxfam_America_Impact_Evaluation_of_HARITA_2009-2012_English.pdf.
- 15 Dalberg Global Development Advisors (Dalberg), *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal, Final Evaluation* (2016). https://s3.amazonaws.com/oxfam-us/www/static/media/files/WFP_Oxfam_R4_Final_Report_English_FINAL.pdf.
- 16 Malgosia Madajewicz, Asmelash Haile Tsegay, and Ruiwen Lee, *Managing Risks in Smallholder Agriculture: The Impacts of R4 on Livelihoods in Tigray, Ethiopia, from 2012 to 2016*, Oxfam External Evaluation Report (Oxfam America and the World Food Programme, 2017). https://s3.amazonaws.com/oxfam-us/www/static/media/files/R4_Ethiopia_Impact_Evaluation_Report_2012-2016_2y0ZSeM.pdf.
- 17 Oxfam America and World Food Programme (WFP), *Managing Risks in Smallholder Agriculture: The Impacts of R4 on Livelihoods in Tigray, Ethiopia, from 2012 to 2016*, Oxfam Evaluation Summary (2018).
- 18 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*, 7.
- 19 Madajewicz, Tsegay, and Norton, *Managing Risks to Agricultural Livelihoods*.
- 20 Ibid.
- 21 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 22 Bollmann and Schulleri, *Rural Resilience Initiative (R4) Feasibility Study*, and Oxfam America and WFP, *Managing Risks in Smallholder Agriculture*.
- 23 Bollmann and Schulleri, *Rural Resilience Initiative (R4) Feasibility Study*.
- 24 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 25 Madajewicz, Tsegay, and Norton, *Managing Risks to Agricultural Livelihoods*.
- 26 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 27 Ibid.
- 28 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 29 Ibid.
- 30 Ibid., 27.
- 31 Ibid., 7.
- 32 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*.
- 33 Bamberger, *Measuring Resilience*.
- 34 World Bank, *Ethiopia: Using a Social Safety Net to Deliver Disaster Insurance to the Poor*, Case Study (2013). <http://documents1.worldbank.org/curated/en/252531468158380847/pdf/6230WP0P12680Box0379812B00PUBLIC0.pdf>.
- 35 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 36 Oxfam America and WFP, *Managing Risks in Smallholder Agriculture*, and World Bank, *Ethiopia: Using a Social Safety Net to Deliver Disaster Insurance to the Poor*.
- 37 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 38 World Bank, *Ethiopia: Using a Social Safety Net to Deliver Disaster Insurance to the Poor*.
- 39 Bollmann and Schulleri, *Rural Resilience Initiative (R4) Feasibility Study*.
- 40 Ibid.
- 41 Ibid.
- 42 Paul O’Hagan, *R4 Process Evaluation Report* (People First Impact Method, 2013). <http://p-fim.org/reports/>.
- 43 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 44 Bollmann and Schulleri, *Rural Resilience Initiative (R4) Feasibility Study*.
- 45 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 46 Basis risk is the potential mismatch between the index-triggered payouts and the actual losses suffered by policyholders. It is an inherent problem to index insurance because of the diverse microclimates found within relatively small geographic areas.
- 47 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 48 Ibid.
- 49 Ibid.
- 50 Bollmann and Schulleri, *Rural Resilience Initiative (R4) Feasibility Study*.

- 51 Oxfam America, *Horn of Africa Risk Transfer for Adaptation: HARITA Project Report: November 2007–December 2009* (2010), <https://s3.amazonaws.com/oxfam-us/www/static/oa3/files/harita-project-report-nov07-dec09.pdf>.
- 52 The R4 basis risk strategy is described in the section “Addressing Basis Risk in R4” in World Food Programme (WFP) and Oxfam America, *R4 Rural Resilience Annual Report, January–December 2017* (2018), 23–26, https://s3.amazonaws.com/oxfam-us/www/static/media/files/R4_AR_2017_US_letter_10april.pdf.
- 53 Ibid.
- 54 Ibid.
- 55 Bollmann and Schuller, *Rural Resilience Initiative (R4) Feasibility Study*.
- 56 Bollmann and Schuller, *Rural Resilience Initiative (R4) Feasibility Study*, and Oxfam America, *Managing Risks to Agricultural Livelihoods: Impact Evaluation of the HARITA Project in Ethiopia (2009–2012)*, Oxfam Evaluation Summary, 2014. https://s3.amazonaws.com/oxfam-us/www/static/media/files/Oxfam_America_HARITA_Top_Lines_2009-2012_English.pdf.
- 57 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 58 Sala Dia, *Annual Impact Reflection Process in Senegal, Rural Resilience*. 2015. [Oxfam internal slide deck.]
- 59 Bollmann and Schuller, *Rural Resilience Initiative (R4) Feasibility Study*.
- 60 Ibid.
- 61 Sala Dia, *Annual Impact Reflection Process in Senegal, Rural Resilience*.
- 62 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 63 World Bank, *Ethiopia: Using a Social Safety Net to Deliver Disaster Insurance to the Poor*.
- 64 People First Impact Method “allows communities to speak for themselves in identifying the important changes in their lives and to whom / what these are attributable.” See Paul O’Hagan, *R4 Process Evaluation Report*.
- 65 Madajewicz, Tsegay, and Norton, *Managing Risks to Agricultural Livelihoods*, and Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 66 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 67 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*.
- 68 Million A. Tadesse and Marjorie Victor, *Estimating the Demand for Micro-Insurance in Ethiopia* (2009), <http://dx.doi.org/10.2139/ssrn.2238711>.
- 69 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2018*.
- 70 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 71 Ibid.
- 72 Bedaso Teye Consultancy Services (BTCS) and Oxfam America, *Gender Analysis of R4 Rural Resilience Initiative (R4) in Tigray Region* (2015).
- 73 Ibid.
- 74 Emma Fawcett, *Oxfam America’s Exit from R4 in Ethiopia: Evaluative Review of Partnerships, Lessons Learned, and Next Steps*, external version (Oxfam, 2020).
- 75 Madajewicz, Tsegay, and Norton, *Managing Risks to Agricultural Livelihoods*.
- 76 Ibid.
- 77 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 78 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*.
- 79 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 80 Bamberger, *Measuring Resilience*.
- 81 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 82 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*, 3.
- 83 BTCS and Oxfam America, *Gender Analysis of R4 Rural Resilience Initiative (R4) in Tigray Region*.
- 84 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*.
- 85 Dalberg, *Impact Evaluation of the R4 Rural Resilience Initiative in Senegal*.
- 86 As noted in WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*, 26.
- 87 BTCS and Oxfam America, *Gender Analysis of R4 Rural Resilience Initiative (R4) in Tigray Region*.
- 88 WFP and Oxfam America, *R4 Rural Resilience Initiative Annual Report, January–December 2016*.
- 89 Worldwide Influencing Network, *WIN Case Study, Ripple Effects*.
- 90 Ibid.
- 91 Madajewicz, Tsegay, and Lee, *Managing Risks in Smallholder Agriculture*.
- 92 Worldwide Influencing Network, *WIN Case Study, Ripple Effects*.
- 93 Oxfam America, *Horn of Africa Risk Transfer for Adaptation: HARITA Quarterly Report: October 2011–December 2011* (2012), https://s3.amazonaws.com/oxfam-us/www/static/media/files/harita-quarterly-report-oct-dec-2011_web.pdf.
- 94 Ibid.
- 95 Those publications are (1) Jonathan Doh, Ted London, and Vasilina Kilibarda, *Building and Scaling a Cross-Sector Partnership: Oxfam America and Swiss Re Empower Farmers in Ethiopia*, Oikos Case Collection, Case 1-429-185 (Oikos, 2012), https://oikos-international.org/wp-content/uploads/2013/10/oikos_Cases_2012_Oxfam_SwissRe.pdf, a documentation of the program partnership history in the form of a teaching case and (2) the previously cited Bamberger, *Measuring Resilience*.
- 96 Bamberger, *Measuring Resilience*.
- 97 Ibid., 9.
- 98 The research team contacted Swiss Re to include relevant staff in the interview sample; however, due to turnover and staff changes, it was not possible for these staff to be interviewed.
- 99 Terry Slavin, “The Impact of Intrapreneurs: How Swiss Re and Oxfam Joined Forces to Help African Farmers,” Reuters Events, October 4, 2017, <https://www.reuters-events.com/sustainability/impact-intrapreneurs-how-swiss-re-and-oxfam-joined-forces-help-african-farmers>.
- 100 Bamberger, *Measuring Resilience*.
- 101 Oxfam America, *Horn of Africa Risk Transfer for Adaptation: HARITA Quarterly Report: October 2010–December 2010* (2011), <https://www.oxfamamerica.org/explore/research-publications/horn-of-africa-risk-transfer-for-adaptation-harita-quarterly-report-october-2010december-2010/>.
- 102 UN Human Rights Council (UNHRC), Right to a Healthy Environment: Good Practices, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/43/53 (2019), <http://srenvironment.org/report/good-practices-in-implementing-the-right-to-a-healthy-environment-2020>, in particular, see Annex III of this report, “Additional Good Practices in the Implementation of the Right to a Safe, Clean, Healthy and Sustainable Environment,” A/HRC/43/53/Annex III, which is available via the URL noted above.
- 103 UNHRC, Annex III, “Additional Good Practices in the Implementation of the Right to a Safe, Clean, Healthy and Sustainable Environment,” annex to Right to a Healthy Environment: Good Practices, Report of the Special Rapporteur, A/HRC/43/53/Annex III, 18, ¶108.

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ANNEX 1: R4 PARTNERS AND INSTITUTIONAL ROLES

OUR LOCAL/NATIONAL PARTNERS IN ETHIOPIA

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

- **Willis Towers Watson.** Leading global advisory, broking and solutions company. Our local/national partners in Senegal.

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.** ANAC IM helps with the design of insurance product(s) by providing historical and current climate data, and installing and maintaining weather stations.
- **BAMTAARE.** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Tambacounda.
- **Caritas Kolda.** Religious organization carrying out DRR projects on access to water and sanitation, production and processing, and migration management, and leading voucher distribution in Kolda.
- **Compagnie Nationale d'Assurance Agricole du Senegal (CNAAS)—National Agricultural Insurance Company of Senegal.** Senegal's only agricultural insurance company (public-private company founded in 2008 by the government). It is the insurance provider for the product(s) offered under the Risk Transfer component.
- **Institut National de Pédologie (INP)—National Institute for Pedology.** Technical agency affiliated with the Ministry of Agriculture, in charge of soil conservation and restoration projects, including building stone bunds and check dams, and composting.
- **La Lumière.** A grass-root Senegalese NGO which provides financial services to low-income rural households. It is the current implementation partner for Oxfam's Saving for Change program in Senegal, and the implementation partner for the Risk Reserves component.
- **PASA.** Technical agency affiliated with the Ministry of Agriculture, in charge of lowland rehabilitation and rice production activities in Kongehuel.
- **PlaNet Guarantee.** Insurance broker specializing in 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.
- **SEN RE.** Senegalese reinsurance company.
- **Swiss Re.** A leading wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer.

OUR LOCAL/NATIONAL PARTNERS IN MALAWI

- **CUMO Microfinance.** A well-established microfinance institution in Malawi with the widest rural outreach which seeks to improve low income entrepreneurs with access to sustainable and integrated financial services to unlock their potential. Responsible for the delivery of the risk reserves and saving components of R4 and provides operational support on insurance.
- **Department of Climate Change and Meteorological Services (DCCMS).** Mandated to provide reliable, responsive and high quality weather and climate services to meet national, regional and international obligations through timely dissemination of accurate and up to-date data and information for socioeconomic development.
- **Department of Disaster Management Affairs (DoDMA).** An institution mandated to plan, coordinate and monitor disaster risk reduction, preparedness and response activity in country. Provides overall strategic oversight and guidance for R4 in Malawi and supports R4 implementation and coordination through its local structures. District Councils. Local government administrative authorities responsible for the implementation of FFA in the district, which includes activities like community mobilization and training, distribution of project inputs, supervision and monitoring, as well as liaising with other relevant District authorities.
- **Foundation for Irrigation and Sustainable Development (FISD).** With expertise in irrigation and water development, FISD supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.
- **Insurance Association of Malawi.** An association of technical experts in the insurance. Approver of insurance products and manages insurance risk in the insurance market.
- **Ministry of Agriculture (MOA).** Responsible for agriculture policies and programs at national and local level. It supports provision of extension services in the R4 project areas.
- **Ministry of Finance Economic Planning and Development (MoFEPSD).** Oversees the National Social Support Policy that governs the establishment of sub-programs including Social Cash Transfer Scheme (SCTS), Public Works Programme (PWP), School Meals, Village Savings and Loans (VSL) and Microfinance. Strategic partner to establish technical and operational synergies with existing programs.
- **NICO Insurance Company.** Main insurance underwriter for index-based insurance products in Malawi.

- **United Purpose (UP).** Long term presence in the country with a strong community-oriented approach, and experience in agriculture and savings projects. Supports R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.
- **World Vision Malawi.** Implementing relief, development and advocacy interventions in Malawi since 1982, World Vision operates in all 28 districts. They support R4 with sensitization, targeting, registration, monitoring and implementation of DRR activities and provides supervision and monitoring of R4 activities at district level.

OUR LOCAL/NATIONAL PARTNERS IN ZAMBIA

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

- **Zambia Meteorological Department (ZMD).** The primary provider of meteorological services in Zambia, ZMD has offices in every Provincial capital and some districts, and is responsible for providing weather and climate information to the public and various sectors of the economy. It is also the custodian of the official records of Zambian Weather and Climate, and collaborates with R4 on seasonal monitoring processes.

OUR LOCAL/NATIONAL PARTNERS IN KENYA

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

- **Pula Advisors.** Pula Advisors offer services in eight countries across Africa and Asia, and in 2016 alone, facilitated crop and livestock insurance cover to 400,000 farmers in Kenya, Rwanda, Uganda, Nigeria, Ethiopia and Malawi. As R4 Kenya's technical service partner, Pula provides technical support in index design, reinsurance/insurance arrangements, capacity strengthening, seasonal monitoring and crop sampling.

OUR LOCAL/NATIONAL PARTNERS IN ZIMBABWE

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

ANNEX 2: MEDIA CITATIONS AND RESOURCES

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STORIES/BLOGS

- “2018- Using insurance to protect farmers against drought in Senegal”
- “From poverty to profit”
- “Weather insurance boosts the resilience of Malawian farmers”
- “4 simple steps to help families defeat drought in northern Ethiopia”
- “African smallholder farmers get insurance payouts of US \$1.5 million after low rainfall”
- “Weather Insurance Boosts the Resilience of Malawian Farmers”
- “Disaster Risk Reduction can protect smallholder farmers, experts say”
- “How savings group is transforming the lives of smallholder farmers in Zambia”
- “Crop insurance eases burden on farmers in southern Kenya”
- “From modest savings, an entrepreneurial spirit”
- “New Climate Data Transforms Insurance Projects in Africa”
- “WFP Mobilizes Grant From The Green Climate Fund To Protect Farmers From Climate Change”
- “Is insurance a climate cure-all? It’s complicated.”
- “How To Dodge A Drought”
- “Putting the missing “p” in public-private-partnerships: Lessons from the R4 Rural Resilience Initiative”
- “Dear G7 Leaders: Insurance is hardly enough. Trust us, we know from experience”
- “Ethiopian Farmers Get a Payout, Easing Effects of Drought”
- “With Insurance, Loans, and Confidence, This Ethiopian Farmer Builds Her Resilience”
- “In Northern Ethiopia, Weather Insurance Offers a Buffer Against Drought ”
- “Weather Insurance Offers Ethiopian Farmers Hope—Despite Drought ”
- “Medhin Reda’s Best Asset Is Her Own Hard Work”
- “Gebru Kabsay Relies on Rain But Has the Security of Insurance”
- “Selas Samson Biru Faces Uncertainty with the Seasons”

PARTNER REPORTS

- [IRI FINAL 2013 End of Season Assessment Report](#): This report provides an assessment of the 2013 rainfall season for the R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2013 indices.
- [HARITA IRI Updated 2012 HARITA Initial End of Season Assessment October 2012](#): This report is a deliverable by the International Research Institute for Climate and Society (IRI) to Oxfam America. It provides an early, exploratory assessment of the 2012 rainfall season for the HARITA/R4 project in Ethiopia in terms of satellite rainfall estimates and their implication for the 2012 indices.
- [HARITA IRI Report to Oxfam America March 2012](#): This report is a deliverable by the IRI to Oxfam America on the 2012 index development processes and presents the final indices offered in the project villages.
- [HARITA IRI Report to Oxfam America May 2011](#): This report is a deliverable by IRI to Oxfam America on the 2011 index development processes. It provides a description of the indices, their structure, their data sources, the design process, and action plans for the project as well as a separate section with the educational materials used to support the 2010/2011.
- [HARITA IRI Report to Oxfam America June 2010](#): This progress report is a formal deliverable by IRI to Oxfam America and presents an overview of the scalable index insurance product development process for the 2010 growing season. It explains the economic risk simulation games conducted with farmers to understand their risk-management decisions/preferences and also to educate them about index insurance packages.
- [Technical Annex: HARITA IRI Report to Oxfam America June 2010](#): IRI has been working to build a formal statistical methodology that will systematically compare and integrate information on remote sensing of rainfall, ground-based data measurements, and other data sets. This report presents a preliminary analysis that focuses on Adi Ha—the pilot village— modeling rainfall at five neighboring sites, where daily rainfall amounts have been recorded during different intervals for each site over the course of a 49-year time period, from 1961 to 2009. This methodology is intended to be further developed and packaged into tools for contract design and evaluation.
- [HARITA IRI Report to Oxfam America October 2010](#): This progress report is a formal deliverable by IRI to OA that summarizes the 2011 scaling process and presents the education materials developed to support the scaling process.

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 New Tool for Tackling Poverty](#)

PHOTOGRAPHY

Project photos are available upon request. See examples of photos used in this report.

COVER IMAGE: Birhan Teklehaimanot, 39, a married mother of four boys in Tigray, Ethiopia, joined the R4 initiative in 2014 and got a \$24 insurance payment for her wheat crop after a poor harvest in 2015. She used the insurance to pay back loans for fertilizer and seeds. *Petterik Wiggers / Panos for Oxfam*



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