



R4 SENEGAL EVALUATION SUMMARY (2015)

Rural Resilience in Action

PRELIMINARY RESULTS OF THE IMPACT EVALUATION FOR THE R4 RURAL RESILIENCE INITIATIVE IN SENEGAL (2013-2015)

Climate change puts millions of people's lives at risk, trapping them in food insecurity and poverty. When climate disasters strike, the situation of vulnerable people quickly deteriorate into a food and nutrition crisis. The R4 Rural Resilience Initiative, a partnership between the World Food Programme and Oxfam America, offers integrated risk management strategies to build farmers' resilience to climate-related shocks and to improve their livelihoods. In 2015, R4 commissioned an impact evaluation on R4 Senegal.

Background and methodology

In 2015, R4 commissioned Dalberg Global Advisors to undertake the first phase of the R4 Senegal impact evaluation. The consultants used a quantitative (difference-in-differences) and qualitative (desk-based research and focus group discussion) methodology, analyzing impacts on a sample of 1,776 households across two regions, Tambacounda and Kolda, with particular attention to the rural community of Koussanar in Tambacounda, where R4 was first piloted in 2013. In 2016, a final data collection will consolidate the results of the impact evaluation.

Key findings

- 1. Despite two years of adverse climate conditions, R4 participants did not slide into food insecurity.**

The evaluation revealed that the pilot area of Koussanar experienced declining agricultural and livestock production as well as food consumption rates between 2013 and 2015, due to particularly dry conditions. The Food Consumption Score (FCS) worsened over the two years considered for both participants and non-participants of R4.

R4 farmers, however, were able to maintain their food security level compared to farmers living in the same area and exposed to the same shocks. Participants' FCS dropped from 59.02 to 56.24 points (-8.1%) as opposed to non-participants who witnessed a decrease from 56.2 to 28.6 points (-49.1%).

According to the FCS's categorization, on average non-participants went from an 'acceptable' food security situation, to a 'limited/borderline' food security situation. R4 participants on the contrary, while experiencing a drop in their FCS, remained in the 'acceptable' food consumption group.

The Food Consumption Score (FCS) – a WFP corporate tool – is a proxy indicator of household food security based on the weighted frequency (number of days in a week) of intake of eight different food groups. It is measured as follows: $FCS = a_1 \times x_1 + a_2 \times x_2 + \dots + a_8 \times x_8$, Where i =food group, x =frequency, a = weight. FCS captures both quality (different food groups/dietary diversity) and quantity (food frequency) elements of food security.

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

2. Rice production increased ten times more among R4 participants compared to the control group.

A significant larger increase in rice production was observed among R4 farmers compared to the control group. Rice is a key crop supported by the R4 Initiative through the creation of water and soil conservation assets for better management of low-lying land. R4 participants improved their average rice production by 229.79kg per household over the survey period, while non participants increased production by 20.13 kg, less than ten percent of the increase observed for participants.

The R4 Rural Resilience Initiative is built on an innovative model that combines four risk management strategies: improved resource management through asset creation (risk reduction), insurance (risk transfer), livelihoods diversification and microcredit (prudent risk taking) and savings (risk reserves). R4 currently operates in Ethiopia, Senegal, Malawi and Zambia. Donors include USAID, Swiss Agency for Development and Cooperation, French Development Agency and Norway for WFP; Swiss Reinsurance Company, Elma Foundation, the Rockefeller Foundation and the Cargill Foundation for Oxfam America. In 2015, the program compensated almost 30,000 farmers with over US\$445,000 in Ethiopia, Senegal and Malawi.

3. Solidarity among households increased.

Focus group discussions revealed that solidarity among farmers increased thanks to the collective activities conducted under the risk reduction component of the program (e.g. building water and soil conservation assets) and the Saving for Change groups.



“The R4 Program has created solidarity in the village, especially among women through the saving groups. They contribute to the development of the community through their savings and their gardening activities.” Woman farmer, Dawady, Koussanar.

Improvement areas

4. Resilience at the community-level remains weak.

Despite some improvement in organizational capabilities and feelings of group solidarity, resilience at the community-level remains weak due to a lack of effective mechanisms to generate group responses to unexpected shocks. Although the R4 program supports communities in developing economic potential and climate adaptability, there is another key component to communities' resilience that needs to be tackled: organizational capacity to produce unified community responses to major shocks.