



Nicaragua

Resilience

2014/15

## Climate change adaptation among small scale producers

This project arose from a concern that the impact of climate change on rural livelihoods in the north-west of Nicaragua was becoming more severe, with increased patterns of irregular rainfall and prolonged dry seasons leading to soil degradation, the emergence of new crop diseases, and food crises. The project aimed to improve small producers' understanding of and ability to adapt to climate change, in the department of Chinandega. Project activities were implemented by Oxfam in partnership with the Centro para la Promoción, la Investigación y el Desarrollo Rural y Social (CIPRES). Project participants – almost all of whom were women in producer cooperatives – received a programme of support, including training on improved techniques for crop production and soil management, on the selection and storage of seeds, on livestock management, and on protection of the local environment. Project participants were also provided with seeds and tools, as well as metal silos for grain storage, biodigesters, and ecological latrines, to further support experimentation and adaptation in productive activities. In its later stages, the project encouraged direct participants to share their learning with other cooperative members and their neighbours.



Map of Nicaragua. Chinandega where project activities were implemented and the Effectiveness Review was conducted, is indicated in red.

Project date: January 2011 – October 2013 Evaluation: December 2014

Publication: December 2015

# Evaluation Method

The review sought to evaluate the impact that the project had on both direct project participants, and on other women members of the same local cooperatives (indirect beneficiaries). Considering the indirect beneficiaries allowed the review to assess whether the project created 'spillover' effects. A 'quasi-experimental' evaluation design was used whereby data from interviews with both direct and indirect beneficiary households, and with households from nearby communities who had not been supported by the project, were analysed using propensity-score matching and multivariate regression. See the document 'How are effectiveness reviews carried out?' for more information on evaluation design. Full details about the specific evaluation design used in this case are contained in the full report of the Effectiveness Review.

## Results

Project outcome		Linked to project logic	Evidence of positive impact on:		Commentary
			Direct project participants?	Other cooperative members?	
Resilience	Livelihood viability	Yes	Yes	Yes	Main evidence of impact on crop diversification and improved agricultural practices, among both direct project participants and other cooperative members.
	Innovation potential		Yes	No	Direct project participants had improved understanding of climate change and were more likely to adopt new practices or initiatives, but spillovers to the other cooperative members were limited.
	Access to contingency resources and support		No	No	No evidence of change in savings, access to remittances or state support, or grain storage, even though the latter was directly connected to the project logic.
	Integrity of natural and built environment		Yes	Yes	Evidence among both direct project participants and other cooperative members of increased tree planting.
	Social and institutional capability		Yes	Yes	Strong evidence of increased involvement in risk management and emergency preparedness committees as well as knowledge of risk management plan for both direct project participants and other cooperative members.
Agricultural activities		Yes	Mixed	Mixed	Evidence that the project increased the amount of land households devoted to kitchen gardens and forest-pasture. Also increased use of organic fertilisers and crop rotation/mulching practices.
Dietary diversity		Yes	Yes	Yes	Evidence of increased consumption of fruit and vegetables.
Women's empowerment		No	Very limited	No	Limited evidence that direct project participants were more involved in decisions around agricultural practices, but no evidence that women were more empowered over financial issues. No evidence that women's time use was affected by the project.

## Going forward

The main learning points from the review will be incorporated into current and future projects in Nicaragua. Learning related to women's empowerment, local advocacy and risk management will be applied to a current project that strengthens livelihoods for food security and climate change adaptation. The results of the review will also be shared with Oxfam staff and partners involved in the Alternative Rural Economy programme, to improve future interventions. Building resilience necessitates a 'systems thinking' approach that works at different levels and with multiple focuses/actions, so new projects will explicitly adopt this framework during the design phase. In particular, the review revealed the need to improve strategies for indirect outcomes, especially by establishing partners in local surroundings, and improving access to other resources and capacities. This may affect Oxfam's role in similar projects, in terms of the overall balance between technical assistance and forging relations with external actors. The review also identified how to develop aspects of women's empowerment alongside resilience, demonstrating that issues such as workload, leadership, decision-making and control over financial resources should be addressed at both the household and the system/organisation level. Finally, the review motivated future assessments of similar projects to help identify, design and implement the specific strategies that should be incorporated into future projects, particularly with regard to partners, the sustainability of outcomes, and women's empowerment.

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