

Growing Peace: Impacts of agricultural development interventions on recovery and resilience in conflict-affected Nigeria

Dena Bunnell¹, Thomas Boswell², Bless Jima⁴, Heath Prince², Matthew Lineal³, Casey Harrison³, Ashweeta Patnaik², Olayinka Orefunwa⁴, Ian Schwenke³
¹Kansas State University, ²The Ray Marshall Center at the University of Texas, ³Nuru International, ⁴Nuru Nigeria

Introduction

Northeast Nigeria is characterized by small-scale farming and high levels of poverty. From 2014-2016 large parts of the region were overtaken by the Boko Haram Islamic insurgent group, driving people from their homes and burning villages, farms, and markets in their wake, before being pushed back by Nigerian security forces. Though Boko Haram, and its splinter group the Islamic State West Africa Province, continue to engage in sporadic attacks, many people have returned to their villages and farms in the peripheral regions of Boko Haram's previous territory, such as northern Adamawa state. The campaign by Boko Haram also created cleavages between Muslim and Christian communities in the region, severely reducing social cohesion.



From 2019 to 2023, a randomized control trial impact evaluation was conducted to measure the impact of a comprehensive agricultural development intervention on well-being and resilience of communities recovering from the Boko Haram assault in an area of northern Adamawa state. The intervention included training on financial literacy, nutrition, agricultural production, and agricultural marketing and supported inputs on loan to farmer groups.

The results of this impact evaluation will be used to build a broader analysis of the impacts of agricultural development in relation to conflict recovery by including detailed analysis of resilience indicators and qualitative data with conflict incident data and key economic food price indicators.

Conceptual Framework

In most low-income countries, agriculture is a key component of the economy, often representing the primary income for a majority of the population and a significant proportion of the country's gross domestic product. Rural areas also tend to be where insurgent movements take hold. The relationship between agricultural communities and insurgency is accepted but not well-defined, especially from an economic development perspective. This study seeks to help bridge that gap for conflict-affected rural communities in recovery.

The study uses the USAID definition of **resilience**: "the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth."¹

Data and Methods

The impact evaluation utilized a mixed methods approach to identify outcomes. A detailed survey was administered at baseline, midline, endline paired with qualitative focus groups and key informant interviews. It utilized a methodology adapted from the Resilience Evaluation, Analysis and Learning (REAL) Consortium² in which resilience is measured through a set of three resilience indices: adaptive, absorptive and transformative resilience. Within each index are social, economic and environmental indicators that relate to the survey respondent's preparedness and ability to withstand shocks, such as savings, coping strategies, and social cohesion. Adapted versions of the BRIDGE gender analysis³ and Vulnerability and Resilience Assessment Initiative⁴ questionnaires were also used in survey.

Assignment type	Ward 1	Ward 2	Ward 3	Ward 4
Treatment-2019	248 households	248 households	-	-
Control-2019	-	-	568 households	568 households
Treatment-2023	99 households	59 households	-	-
Control-2023	-	-	260 households	206 households

Survey respondents at baseline and endline

Hyper-local security incident data has been collected in the study area since January 2020. This data will be analyzed against survey and focus group results to identify relationships between recovery and ongoing security challenges⁵.

Results

At the endline of the impact evaluation, the intervention communities saw increases in absorptive and adaptive resilience capacities. Farmers in the intervention group reported using their crop production for sales more than at baseline and more than in the comparison group. Similarly, the intervention group reported higher use of livestock sales for income. Intervention group farmers reported higher cash savings than the comparison group, with an increase of 20.3% since the baseline, and a higher ability to meet basic food needs. Interestingly, the intervention group saw lower confidence in state government services, including regarding government corruption, public education, and the availability of decent wages compared to the comparison group.

Resilience Index	Group	2019	2023	DID Estimate
Absorptive Index	Comparison	23.5	23.6	2
	Intervention	24.5	26.7	
Adaptive Index	Comparison	26.1	24.9	4.4
	Intervention	24	27.1	
Transformative Index	Comparison	37.9	51.5	0.7
	Intervention	34.9	49.2	
Overall Index	Comparison	24.6	26	3.1
	Intervention	23.6	28.1	

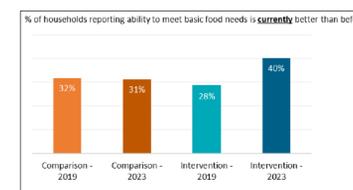
Resilience scores by intervention group from baseline to endline



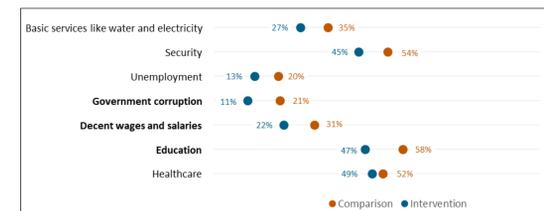
Livelihoods by intervention status at the endline

Access to cash savings	2019	2023	Change from baseline	DID estimate
Comparison	0.31	0.18	-43%	0.203***
Intervention	0.30	0.40	30%	

Access to cash Savings

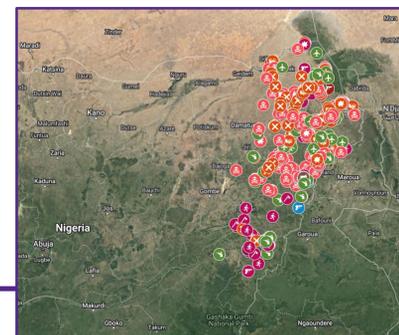


Ability to recover sub-indicators

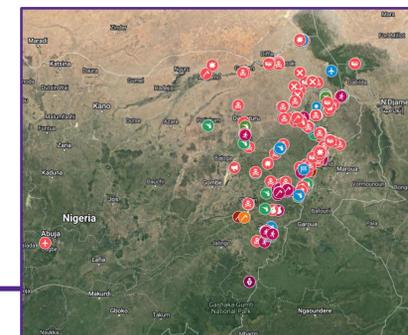


Confidence in state government indicators by intervention status at the endline

Over the study period, there was a reduction in total number of security incidents reported in the region. The formal relationship between security and resilience will be further analyzed.



Local security incident data for 2020⁵



Local security incident data for 2023

Conclusions

Participation in a multi-faceted agricultural development intervention increased key indicators of absorptive and adaptive resilience for the intervention group compared to the control group. There was a significant increase in cash savings in the intervention group. This is likely caused by the focused effort on financial savings group in the intervention program. Increases in agricultural and livestock production for household income can be linked to effects of the intervention programming as well.

This study* provides a detailed micro-level analysis of the impact of an agricultural development intervention in a community recovering from acute conflict. Future work linked to this study will include in-depth analysis of the local security incident data and the addition of food price data aligned with the study location and period to assess household wellbeing of the intervention group within the regional context.

Contact:
 Dena Bunnell
 PhD Candidate
 Security Studies
 Kansas State University
 denab@ksu.edu

References:

- USAID. (December 2022). 2022 Resilience Policy Revision.
- TANGO International. (2018). Resilience and Resilience Capacities Measurement Options: Full Approach—Household Questionnaire. Produced by TANGO International as part of the Resilience Evaluation, Analysis and Learning (REAL) Associate Award.
- Anderson, A., Theis, S., and Bryan, E. 2018. Measuring Gender Dynamics in Resilience: Tools for integrating gender into resilience-focused programs. Portland, OR: Mercy Corps.
- Mercy Corps. 2018. Vulnerability and Resilience Assessment Initiative to counter violent extremism (VRAI) Final Synthesis Report.
- Schofield, Lee, Aboku Ndiripaya, and Timothy Hirhyel. (2023). 2020-2023 Northeast Nigeria Security Incident Data Maps.

*The full Nuru Nigeria Resiliency Study is available at <https://sites.utexas.edu/raymarshallcenter/2023/12/12/nuru-nigeria-2023-endline-impact-report/>.

