

Interim Evaluation of the Budikadidi RFSA in the Democratic Republic of the Congo

Summary Brief



Photo Credit: Hugh Kinsella Cunningham / Save the Children

INTRODUCTION

Overview

The Budikadidi Resilience Food Security Activity (RFSA) was launched in September 2016. The goal of Budikadidi is to ensure that nutrition and food security for households improves to achieve sustained nutrition, food security, and economic well-being outcomes.

The activity has two purposes and an overarching foundational purpose. These are:

- Foundational Purpose: Communities are empowered to sustain improvements to food security and nutrition.
- Purpose 1: Chronic malnutrition in children under 5 years old is sustainably reduced.
- Purpose 2: Household inclusive social and economic well-being is improved.

Prepared by the Tulane University School of Public Health and Tropical Medicine, this brief summarizes the results of the interim evaluation published in 2022.¹

Methodology

The interim evaluation used a pre-/post-population-based survey evaluation design, with surveys representative of the RFSA area of implementation. The design allows for the statistical detection of changes in indicators between survey rounds. However, it does not allow statements to be made about attribution or causation relating to activity impact.

Baseline Round 1 (R1) data was collected in July–August 2017, with a sample of 1,258 households from 44 villages in the planned implementation area, which consisted of two health zones (Cilundu and Miabi).

¹ <https://www.fsnnetwork.org/resource/interim-evaluation-budikadidi-resilience-food-security-activity-democratic-republic-congo>

Subsequently, the RFSa added a third health zone (Kasansa) to its implementation area. The sample in the interim Round 2 (R2) survey was designed to be representative of all three health zones² (the entire area of implementation). Data was collected in July–August 2021, with a total sample of 1,224 households from 46 villages.

The analysis of the change between survey rounds presented in this brief is based on data from the health zones surveyed in both rounds (Cilundu and Miabi). Of the R2 sample, 611 households in 23 villages were used for the comparative analysis of the R1 and R2 data. However, the entire R2 sample is used for analyses relying only on R2 data, such as comparing outcomes between households reporting exposure and those reporting non-exposure to certain RFSa interventions.

Data on the same lower-level outcome indicators were collected in both survey rounds, although the R2 questionnaire excluded the poverty module (due to time and cost considerations) and the anthropometry modules (due to concerns about COVID-19 transmission). The R2 questionnaire also added a module on self-reported household-level participation in various RFSa interventions.

The quantitative findings were triangulated with findings from the mid-term qualitative evaluation,³ activity annual reports, activity direct participant monitoring data, and other secondary data sources.

KEY FINDINGS

Intervention Exposure and Participation

The interim survey shows that some Budikadidi RFSa interventions achieved relatively higher self-reported household participation rates. These include water, sanitation, and hygiene (WASH) trainings/events (37%), toilet building (32%), farmers' groups (35%), Village Savings and Loan Associations (VSLAs) (31%), and others. These interventions took place across all (or nearly all) the villages included in the interim survey. Other interventions had lower self-reported household participation rates, including youth leadership training (5%), adolescent life skills training (6%), alternative livelihood interventions (8%), and others despite also taking place in all or nearly all of the villages surveyed.

ABOUT BUDIKADIDI

Primary Focus Areas: Multi-sectoral approach to deliver a package of interventions aimed to build local capacity, strengthen service-delivery systems, and increase accountability, as well as reduce structural, cultural, and gender-based barriers to change.

Implementing Organizations: Catholic Relief Services (CRS) (prime), National Cooperative Business Association CLUSA International (NCBA-CLUSA), Caritas, Réseaux Femmes et Développement (REFED), and Réseau des Associations Congolaises de Jeunes (RACOJ).

Intervention Period: Oct. 2016 – Sept. 2023 (5 years, plus 2-year extension)

Funding: United States Agency for International Development (USAID) Bureau for Humanitarian Assistance (BHA).

Intervention Areas: 474 villages located in three rural health zones (Miabi, Cilundu, and Kasansa) in the Kasai Oriental province.

Targeting: 426,420 community members living in 85,300 households.

² The descriptive data for all the outcome indicators representative of the entire implementation area (all three health zones) is found in the full report: <https://www.fsnnetwork.org/resource/interim-evaluation-budikadidi-resilience-food-security-activity-democratic-republic-congo>

³ [Mid-Term Evaluation of the Budikadidi Development Food Security Activity in the DRC | Food Security and Nutrition Network \(fsnnetwork.org\)](https://www.fsnnetwork.org)

Activity data from 2020 indicate that the RFSA reached 47,000 unique direct participant households, roughly 34% of households in the coverage area. However, due to registration challenges related to the COVID-19 pandemic, this is likely an underestimate. Looking at the interim survey data, 52% of households in the R2 survey reported participation in one or more of the surveyed RFSA interventions.

Considering these intervention coverage rates (numbers of direct participants), impacts may be diluted at the population level. Therefore, more programmatic intensity and focus may be required to positively impact the lower-level outcome indicators and ultimately improve food security and resilience at the population level.

It is important for BHA and CRS to consider, in general, the cost of implementation of an activity and its interventions relative to the saturation that the activity may be expected to reach to determine if it is worth running an intervention that is “a mile wide and an inch deep.” The package of RFSA interventions may need to be streamlined and/or consolidated to ensure only sustainable, efficient, and impactful interventions are used. This study only begins to scratch at the surface of these issues.

Food Security and Resilience

Food security, as measured by the Household Dietary Diversity Score (HDDS), showed only a small improvement between survey rounds, from an average of 3.6 food groups in R1 to 3.9 in R2. However, stable household dietary diversity could be interpreted as a positive outcome, considering the volatile food security in the DRC compounded by the COVID-19 pandemic in the year before the survey.

Moderate and severe food insecurity, as measured by the Food Insecurity Experience Scale (FIES), increased significantly between baseline and interim (87% vs. 97%). However, the FIES data at baseline and interim appears to have limitations in adequately describing food security in the populations surveyed.

All three resilience capacity indices (absorptive, adaptive, and transformative) increased significantly between rounds. However, changes in the indices were largely driven by only one (or a few) of their component indicators. The large increase in the absorptive index was driven by an increase in the reported prevalence of humanitarian assistance. Rapid response activities conducted by other actors in some of the areas of implementation may have led to this change. The small increase in the adaptive capacity index was driven mainly by an increase in social safety nets, which was offset by a reduction in livelihood diversity (mainly from a reduction in households reporting remittances or gifts). The modest increase in the transformative capacity index was driven mainly by improvements reported in formal safety nets but was offset by small decreases in other component indicators.

There is a positive correlation between the HDDS and higher absorptive and adaptive capacity indices. However, this does not hold true for the transformative capacity index, which is defined mainly by community-level indicators rather than household-level.

Water, Sanitation, and Hygiene

Drinking water quality and access showed neutral or positive changes. Households with improved drinking water sources increased significantly, from 47% to 57%. Additionally, the percentage of households that can access drinking water in less than 30 minutes increased from 56% to 72%. The use of recommended water treatment technologies remained low, however. The 2019 mid-term evaluation highlighted that the demand for potable water in the intervention areas was great, to the point of straining the system. However, the RFSA continues to make strides to expand and reinforce the system to meet that demand, which promises further improvements during the extension period of the activity.

Improvements in sanitation are best observed in the decrease in the percentage of households using open defecation, which decreased from 35% to 18%. Households with an adequate handwashing station only saw very small improvements, however.

Participation in WASH trainings/events and toilet building interventions are significantly associated with improvements in some WASH outcomes. WASH trainings/events took place in all but one of the R2 surveyed villages, and 31% of households reported participation in these trainings. Toilet building interventions were also implemented in nearly all the villages sampled in the R2 survey, with 32% of HHs reporting participation. Participation in WASH training/events was associated with significantly higher handwashing and correct water treatment. Also, participation in toilet building was significantly associated with reduced open defecation.

Kasansa, not included in the comparative analysis, showed worse WASH outcome indicators in R2 than the other health zones. While 55% of households in Cilundu and 60% in Miabi indicated they had access to a basic water source, this was true for only 38% of households in Kasansa. Similarly, 49% of households in Kasansa required over 30 minutes to obtain water, compared with 29% and 27% in Cilundu and Miabi, respectively. Activity targets may need to be revised, considering that Kasansa likely started further behind than the other health zones.

Agriculture

Changes in agriculture indicators were of mixed results. Most remained unchanged; some showed some degree of improvement, while others showed worsening trends.

One important, large improvement is farmers practicing value-chain activities (19% to 42%). Positive impacts of the activity on agricultural market linkages are also highlighted in the 2020 annual report.

The aggregate indicators measuring the use of sustainable crop and livestock practices showed negative changes between rounds. However, some indications of positive change are seen when looking deeper into the data. The percentage of farmers practicing at least one type of sustainable crop practice increased between rounds, from 62% to 82%. The percentage of farmers with livestock practicing at least one sustainable livestock practice increased from 39% in R1 to 45% in R2. There were significant increases in some of the crop practices promoted by the RFSA, including the use of manure, which increased from 11% of farmers at baseline to 33% at interim, and compost, which increased from 12% of farmers at baseline to 24% at interim. Other promoted crop practices remained relatively unchanged, except for weed control (which decreased from 31% to 15% of farmers). Looking at the individual livestock practices, the use remained relatively unchanged, with only some relatively small fluctuations for certain practices.

Household participation in certain interventions was associated with better agriculture outcome indicators in the R2 survey. The 32% of farmers from households reporting VSLA participation had significantly higher rates of financial services use. Farmers participating in agricultural input interventions (15%) were more likely to use value chain activities (41% compared to 35% among non-participants).

Women's Health and Nutrition

Indicators of women's diets experienced some decrease between baseline and interim surveys. Women's consumption of a minimum acceptable diet (MAD) showed no significant change, but consumption of targeted nutrient-rich commodities experienced a large drop, from 66% in R1 to 30% in R2. The drop in nutrient-rich commodities was primarily driven by a reduction in the consumption of bio-fortified foods,

which fell between survey rounds from 37% to only 10%. This may be due to changes in other activities implemented in the area.

Participation in nutrition trainings is associated with better dietary diversity. Among the 16% of women who participated in nutrition trainings, the prevalence of consumption of a minimum dietary diversity was 21%, compared to only 8% among women who did not participate.

Child Health and Nutrition

There was a significant decrease in children under 5 years who had diarrhea in the last 2 weeks (44% to 35%). Positive changes were also seen in the use of oral rehydration therapy (ORT) to treat diarrhea in children under 5 years and exclusive breastfeeding of children under 6 years. However, the changes were insufficient for the small sample sizes to be significant.

The prevalence of children 6–23 months receiving a MAD and the prevalence of children 6–23 months who consume targeted commodities did not experience a significant change. The lack of important changes in diet quality and diversity is also seen among women of reproductive age and at the household level.

Participation in mothers' groups, nutrition training, and home health visits were not associated with differences in outcomes in exclusive breastfeeding, use of ORT, children's MAD, or consumption of nutrient-rich commodities. The 2018 mid-term evaluation highlighted that many of these activities require highly effective lead mothers to succeed. It may be that the COVID-19 restrictions limited the ability of the lead mothers to adequately conduct their work.

Gender

Significant improvements between survey rounds were observed in many of the gender indicators. However, certain decision-making indicators did not show obvious positive change, particularly among women. As emphasized in the 2018 mid-term evaluation, gender norms in Kasai are deeply entrenched and will take a long time to change.

There was a significant increase in the percentage of adult women earning cash in the previous year (27% to 35%). Among men, this remained unchanged (44% in both rounds), indicating that new cash-earning opportunities are being made available to women. Men in unions shifted from making decisions about their own self-earned cash alone to making these decisions jointly with their wives or partners.

There was a significant increase in knowledge of maternal and child health and nutrition (MCHN) practices (for both men and women). There was also a significant shift in men making maternal or child health decisions alone to making them jointly with their spouse or partner.

The combined percentage of women reporting making decisions about their self-earned cash alone plus those making them jointly decreased slightly between survey rounds. This indicates that women did not appear to gain decision-making power related to their cash earnings. Similarly, the combined percentage reporting making maternal health or child health decisions alone, plus those making them jointly, did not see large changes between survey rounds. This indicates that women did not appear to gain decision-making power for their own health or their children's health between rounds.

The percentage of men saying that it is ok for a man to batter his wife for any reason saw a moderate increase, from 62% to 71%. Among women, there was no observed significant change between survey rounds (34% in R1, 31% in R2). There was no change in the percentage of women reporting participation in community decision-making bodies.

Methodological Challenges

This evaluation had some methodological challenges that should be considered in future evaluations, most importantly those related to the limitations in the pre-/post-PBS design and the utility and function of certain outcome indicators.

Modifications in areas of implementation after the baseline PBS is common across RFSAs. However, pre-/post-PBS methodology may not be well suited to adapt to changes in where interventions are implemented.

Sampling frame data in the DRC often has large inaccuracies. This results in highly variable probability/population weights and a loss of statistical power. Therefore, alternative PBS sampling strategies should be considered to reduce the loss of statistical power with similar sample sizes and budgets.

There is a desire to have evaluation data that can show the impact of interventions on the various outcomes. However, PBSs do not readily allow this level of analysis. Population-level changes in many low-level indicators have a low likelihood of occurring with the given intensity of certain interventions.

The utility of certain food security indicators (such as the FIES) should be re-evaluated, including an assessment of their functionality in specific locations and contexts. The prevalence of moderate and severe food insecurity (as measured by the FIES) was very high at baseline (87%) and interim (97%). This homogeneity of the food security status as measured by this indicator renders a more detailed analysis less useful in assessing change. The FIES has other statistical limitations in the populations surveyed. It may not adequately describe the food security situation in the populations surveyed.

The resilience capacity indices are less useful as composite indicators. The sub-components of the indices tend to reveal more useful information. For example, three of the adaptive capacity component indicators are related to agriculture, so households that did not engage in agriculture tend to have lower scores on this index even if they are highly resilient. This indicates that the adaptive capacity index in the aggregate may be of limited use for households not engaged in agriculture. It may benefit from adaptation to reflect adaptability as a function of livelihood.

SCORECARD

The table below outlines the lower-level outcome indicators collected in both rounds and highlights where there are significant changes (analysis restricted to the areas surveyed in both survey rounds). The indicator values, sample sizes, full names, and other information can be found in the full evaluation report.⁴ It is important to note for certain indicators, such as exclusive breastfeeding, there were large improvements in the prevalence observed between rounds, but the changes were not found to be significant due to small sample sizes. Additionally, the complexity of the gender indicators related to decision-making do not lend themselves to this scorecard presentation and so are excluded (see gender section above for those key findings).

⁴ [Interim Evaluation of the Budikadidi Resilience Food Security Activity in the Democratic Republic of the Congo | Food Security and Nutrition Network \(fsnnetwork.org\)](#)

Budikadidi Indicator Scorecard

Significantly worse > 10 percentage points	Significantly worse < 10 percentage points	No significant change	Significant improvement < 10 percentage points	Significant Improvement > 10 percentage points
Food Security, Resilience				
2. Food Insecurity Experiential Scale		1. Household Dietary Diversity Score 40. Shock exposure index 43. Adaptive capacity index 44. Transformative capacity index	41. Severity weighted shock exposure index 42. Absorptive capacity index	
Water, Sanitation, and Hygiene				
		7. Correct use of water treatment 9. Basic sanitation facility 46. Disposal of child feces	6. Improved drinking water source 11. Hand washing	8. Water access in < 30 min 10. Open defecation
Agriculture				
	14. Farmers using ≥ 3 sust. ag. technologies 15. Farmers using ≥ 3 sust. crop technologies 16. Farmers using ≥ 3 sust. livestock technologies	12. Farmers using financial services 17. Farmers using ≥ 3 sust. NRM practices/tech 18. Improved storage		13. Farmers practicing value chain activities
Women's Health and Nutrition				
23. Consumption of nutrient rich foods (women)		20. Minimum dietary diversity (women)		
Child Health and Nutrition				
		28. Diarrhea treated with ORT (< 5 years) 29. Exclusive breastfeeding (< 6 months) 30. Minimum acceptable diet (6–23 months) 31. Cons. of nutrient rich foods (6–23 months)		27. Prevalence of diarrhea (< 5 years)
Gender				
	47a. OK to batter wife (men)	32a. Earned cash in past year (men) 47b. OK to batter wife (women) 48. Women in comm. decision making bodies	32b. Earned cash in past year (women)	35a. Knowledge of MCHN (men) 35b. Knowledge of MCHN (women)

