



Graduation Approach, Malawi (2022)

COST-EFFICIENCY ANALYSIS, JULY 2022

Summary

This case study summarizes an analysis conducted by Catholic Relief Services (CRS) in Malawi¹ using the Dioptra tool to assess the cost-efficiency of the Graduation Model, which is a holistic approach combining consumption support, livelihoods training and start-up provision, financial inclusion, and targeted messaging to reduce extreme poverty and improve economic self-reliance. The analysis revealed the following findings:

- **The Graduation Model in Malawi cost \$855 per household on average. This was lower compared to similar programs in other countries due to lower amounts of cash distributed, larger program scale, integration with other interventions, and local partnership. Spending patterns were in line with other countries.**
- **Graduation Model costs were driven by the Livelihoods pillar to improve people's income sources. The cost per household is expected to be lower when the program is scaled up further, as the spending on Program Management and Support can be spread across more households.**
- **Social Return on Investment: Comparing costs with the potential impact, each household could sustainably earn a cumulative income within two years that is equivalent to the costs invested in them.**
- **Using the Dioptra tool for cost-efficiency analysis enabled country program staff to focus on recalling and providing crucial estimates of how different resources were used across activities within a program, which are not captured in any current data system, instead of having to learn a complex costing methodology and assemble data manually in spreadsheets.**

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Introduction

Since gaining independence in 1964, Malawi has made strides in its economic development, albeit with ongoing challenges such as over-reliance on agriculture for the economy, erratic power supply, and debt vulnerability. Almost 80% of the population work in agriculture and subsistence farming and are vulnerable to climate shocks and food insecurity.²

CRS and Lusubilo Community Care are working to reduce extreme poverty in Karonga, Rumphi and Chitipa districts through a three-year program called Integrated Support for Orphans and Other Vulnerable Children and Youth (IOVCY) that aims to improve the well-being and resilience of orphans, vulnerable children, and youth. The IOVCY program is an integrated project that included the Graduation Model

approach within its activities, which is a well-established model originally designed by BRAC for addressing poverty³. Multiple studies on its impact have shown that it can be effective at lifting 95% of participants out of poverty, with significant effects persisting seven years after project completion. Benefits include increases in household consumption, savings, and assets.⁴ The approach has been implemented in contexts around the world, with consistent impact findings (see review by Banerjee et. al. on the impacts and cost-effectiveness of the program in six countries⁵).

The Graduation Model is comprised of four pillars, and program activities are designed to improve outcomes across all four pillars so that participants can sustainably rise above extreme poverty:

Program Pillar	Intended Outcomes	Activities
Consumption Support	Meet basic household needs such as food, clothing, shelter.	Monthly cash transfers to each household for five months (\$27/month). One-time cash transfer for livestock (\$62), agriculture inputs (\$55), and education support (\$20) was also provided. A total consumption support of \$272 was provided to each household.
Livelihoods Training and Start-Up Provision	Diversify household livelihoods strategies to reduce reliance on a single income stream and promote sustainable income generation.	Assessing and identifying viable livelihoods options, providing livelihood start-up capital (cash transfers between \$50 and \$124 depending on the livelihood option), providing training and mentorship on the livelihood options and general business skills.
Financial Inclusion	Improve the long-term availability and access of community based financial services self-sufficiency beyond the project life span.	Creating the Savings and Internal Lending Community (SILC), recruiting SILC Community Agents (CAs) who supported group formation, encouraging households to participate in SILCs, and providing financial education training.
Targeted Messaging	Promote the uptake of healthy behaviors and practices while addressing social and cultural norms	Providing messaging to participating households and the wider community on topics such as COVID-19; Health, Nutrition and WASH; Adolescent Nutrition; Gender; Child protection; Positive parenting; HIV and Demonstrations.

CRS and Lusubilo Community Care are implementing the Graduation Model in two separate cohorts of participating households. The first cohort include 951 households who are expected to graduate from the program after 3 years of implementation from January 2020 to February 2023. In early

2022 a Graduation Readiness Assessment of households' progress towards 'graduation' was conducted with assessed households noting improved economic wellbeing.⁶

² The World Bank. "Malawi Overview", accessed August 11, 2022.

<https://www.worldbank.org/en/country/malawi/overview>

³ BRAC. "Graduation Overview". May 2021. <https://bracupgi.org/wp-content/uploads/2021/06/Graduation-Overview-May-2021.pdf>

⁴ Sulaiman, Munshi, Nathanael Goldberg, Dean Karlan, and Aude de Montesquiou. 2016. "Eliminating Extreme Poverty: Comparing the Cost-effectiveness of Livelihood, Cash Transfer, and Graduation Approaches." <https://www.poverty-action.org/publication/eliminating-extreme-poverty-comparing-cost-effectiveness-livelihood-cash-transfer-and>

⁵ Banerjee, A., E. Duflo, N. Goldberg, D. Karlan, R. Osei, W. Pariente, J. Shapiro, B. Thuysbaert, and C. Udry. "A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries." Science 348, no. 6236 (May 14, 2015): 1260799–1260799. <https://emerge.ucsd.edu/wp-content/uploads/2018/08/banerjee-a-multifaceted-program-causes-lasting-progress-for-the-very-poor.pdf>

⁶ CRS, Lusubilo Community Care. "Graduation Readiness Assessment Report". March 2022.

Analysis Approach and Methodology

This analysis complements the Graduation Readiness Assessment and focused on quantifying the cost-efficiency (i.e., cost per output) of the first cohort of participating households to assess how resources were spent on achieving program quality, learn about drivers of costs and efficiency, and identify lessons to improve reach and impact per dollar spent.

In July 2022, the CRS Malawi program team conducted the cost-efficiency analyses on three separate grants using the Dioptra tool over the course of three three-hour sessions, supported by CRS HQ and the International Rescue Committee (IRC).

Data

The costs analyzed for the first cohort included Direct Project Costs, Direct Shared Costs, and Indirect Costs incurred between January 2020 to February 2022, as well as costs projected to be incurred between March 2022 to February 2023. The costs were calculated in current US dollars.⁷

The number of households for the first cohort are those who are currently still participating in the program since January 2020 and expected to 'graduate' at the end of the program in February 2023.

The cost-efficiency metric is the cost per household, calculated as the total costs incurred for the first cohort of the Graduation Model divided by the total number of households expected to graduate in the first cohort.

The Dioptra Tool

Dioptra is a web-based cost analysis software that allows program staff in country offices, who are most familiar with day-to-day program implementation, to rapidly estimate the cost-efficiency of their program activities. It guides users through a standardized costing methodology, ensuring that all analysis results are methodologically consistent and can be meaningfully compared across different contexts and organizations.

By using the Dioptra tool, rather than having to learn a complex costing methodology and assemble data manually in spreadsheets, staff can focus on providing crucial estimates of how different resources were used across activities within a project, which are not captured in any current data system. Staff relied on their implementation experience and memory to estimate the proportion of costs that contributed to different activities within a project, which represents

imperfect but best available information since it was not captured in any current data system. For more information, see www.dioptratool.org/how-does-dioptra-work.

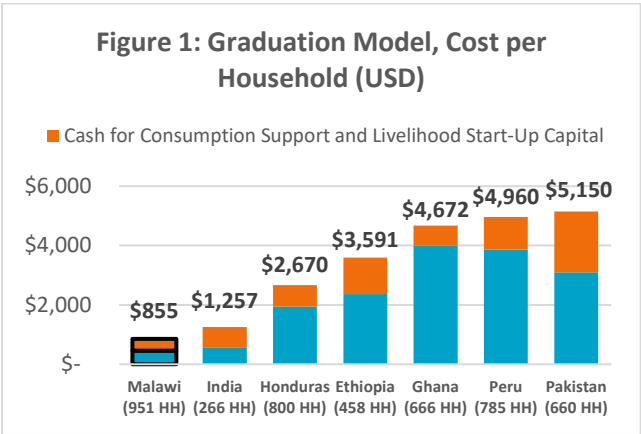


⁷ Program staff salaries for those three grants were analyzed separately using Microsoft Excel by a smaller core team since the disaggregated data was in a separate database.

Results

The Graduation Model in Malawi cost \$855 per household on average. This was lower compared to other countries due to lower amounts of cash distributed, lower price levels, larger program scale, integration with other interventions, and local partnership. Spending patterns were in line with other countries.

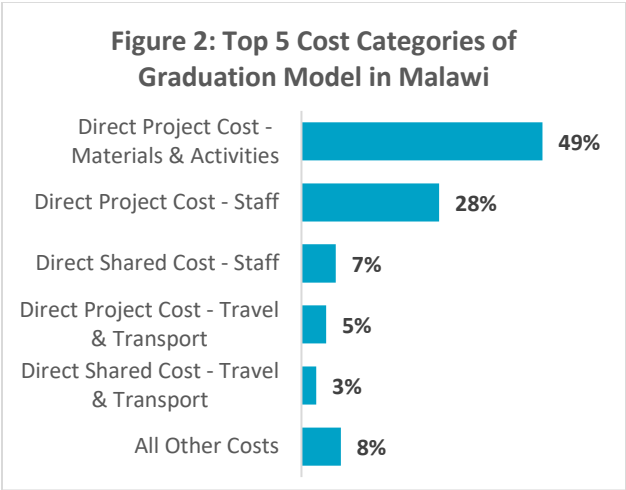
Assuming all 951 households graduate from the program by project closure, it would cost on average \$855 to benefit each household with the Graduation Model in Malawi over a three-year period. This is lower than in other countries that have implemented the Graduation Model (Figure 1).⁸



The amount of cash distributed for consumption support, assets, and livelihood start-up capital in Malawi (about \$396 per household in total) was much lower than in other countries (ranging between \$680 to \$2,048 per household in total), contributing to a lower cost per household. Additionally, a large program scale (leveraging on economies of scale), integration with other interventions, and local partnership may have contributed to the low cost per household observed in Malawi.

⁸ Banerjee, A., E. Duflo, N. Goldberg, D. Karlan, R. Osei, W. Pariente, J. Shapiro, B. Thuysbaert, and C. Udry. "A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries." *Science* 348, no. 6236 (May 14, 2015): 1260799–1260799. <https://emerge.ucsd.edu/wp-content/uploads/2018/08/banerjee-a-multifaceted-program-causes-lasting-progress-for-the-very-poor.pdf>

The largest areas of spending were in Materials & Activities (49 percent) and Staffing (35 percent) (Figure 2). This is in line with spending patterns from other countries that implemented the Graduation Model.⁹ Materials & Activities include consumption and education support, assets, agricultural inputs, livelihoods start-up capital, training costs, and household mentor stipends. Staff salaries include time and effort for program design, implementation, and monitoring.

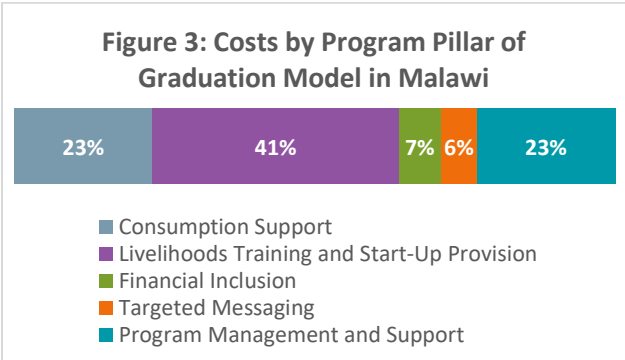


Graduation Model costs were driven by the Livelihoods pillar to improve people's income sources. The cost per household is expected to be lower when the program is scaled up further, as the spending on Program Management and Support can be spread across more households.

Forty-one percent of overall costs were spent on the Livelihoods Training and Start-Up Provision pillar (Figure 3). This was expected as Livelihoods is the core pillar and mechanism of the program for households to earn a sustainable income and become more resilient. The investment in Livelihoods is intended to empower households to diversify their livelihood options and increase their sources

⁹ *ibid*

of income, improving their food security and building resilience against potential economic shocks. From the Graduation Readiness Assessment, 95 percent of the households assessed have managed to diversify to 2 or more livelihoods options, compared to only 71 percent in the baseline.



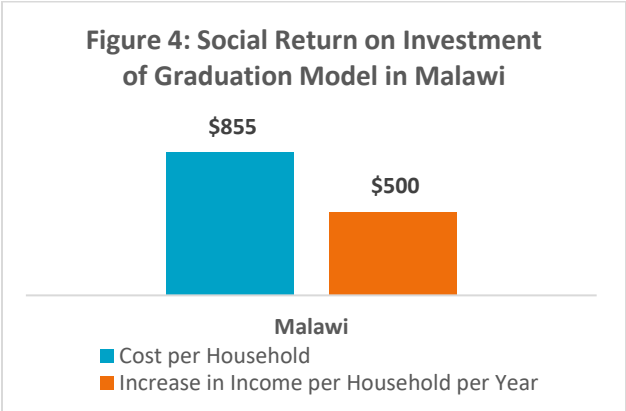
Targeted Messaging is a low-cost pillar (6 percent of overall costs, Figure 3) to ensure uptake of livelihood, nutrition, and WASH practices. A key lesson learned from the program team was that it must precede all other support provided to households, so that it can influence the type of crop being cultivated and ensure uptake of other practices that lead to successful livelihood outcomes. The program team also noted that additional emphasis on gender-related messaging may be helpful to reduce gender-based violence and abuse cases. Given the low cost of Targeted Messaging, additional investment in this pillar is not likely to significantly increase the cost per household.

Due to economies of scale, the 23 percent of spending on Program Management and Support (Figure 3) could be spread across more households at larger program scale. As such, the cost per household is expected to be lower if the Graduation Model is scaled up further. The second cohort that is currently underway is reaching 3,000 participating households, and more lessons on costs and results are expected to materialize at the end of 2023.

Social Return on Investment: Comparing costs with the potential impact, each household could sustainably earn a cumulative income within two years that is equivalent to the costs invested in them.

Previous studies of the Graduation Model approach in other countries have found that consumption and assets of participating households have increased three years after the program, demonstrating that it is a high-cost yet high-impact program with high sustainability of impact.¹⁰

Discussions with the program team and findings from the recent Graduation Readiness Assessment suggest that each household is projected to earn, on average, an additional \$500 in income per year after completing the program. This is a conservative estimate in comparison with the Gross Domestic Product (GDP) per Capita in Malawi, which is \$642 and largely based on agricultural production.¹¹ If the costs were to be compared with the potential impact, this would mean that within two years, each household could earn an additional income that is equivalent to the amount of costs that were invested in them (Figure 4).



¹⁰ ibid

¹¹ The World Bank. “GDP Per Capita Malawi”, accessed August 11, 2022. <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=MW>