

Savings 4 Transformation

Cost-Benefit Analysis



NOTE

This technical summary presents the Savings for Transformation (S4T) core project model funded by World Vision Canada from 2019 to 2021. The cost-benefit analysis was conducted by Limestone Analytics. Results were calculated using both external data and WVC data. However, for brevity, this summary presents the results featuring the external data. Updates to this analysis will occur as additional projects adopt this model and new evidence is continuously collected. Consequently, figures may change to reflect a more accurate understanding of the pathways through which the model achieves its effectiveness and efficiency. All dollar values are reported in 2023 USD and a 9 per cent discount rate.

Introduction

World Vision's [Savings for Transformation](#) (S4T) core project model mobilizes communities to implement savings groups. These are community-based and member-owned groups of 15 to 25 people who contribute communally to a fund and take loans from that fund. The aim is to build resilient, sustainable livelihoods among members by increasing their financial literacy, providing access to funds for household use and empowering communities, especially the marginalized or vulnerable.

To assess the effectiveness and efficiency of this model, a cost-benefit analysis was conducted for World Vision Canada (WVC) by the consulting firm Limestone Analytics. The analysis covers 78 WVC-funded implementations of S4T across 21 countries from 2019 to 2021. Results indicate that the implementations have been cost-effective, generating significant positive *realimpact*™ and value.

Highlights (2019–2021)

- **171,348** participants reached through 78 projects in 21 countries
- **\$5.62** produced in economic benefits for participants for every dollar spent
- **\$48 million** in total benefits generated—**\$45.4 million** from consumption smoothing (see below) and **\$2.6 million** from increased income and economic growth
- **1.4 billion** people around the world are unbanked, primarily women, individuals with low education, and the poor

Table 1. Number of unique World Vision Canada-supported implementations of S4T projects between fiscal year 2019–2021 that have financial cost data available.

Country	# of S4T projects	Country	# WVC of S4T projects
Burundi	4	Mauritania	5
Central African Republic	1	Mongolia	3
Chad	2	Mozambique	1
Dem. Republic of Congo	6	Niger	1
Ethiopia	2	Philippines	5
Ghana	4	Rwanda	4
Guatemala	3	Senegal	7
Honduras	2	Sri Lanka	2
Laos	2	Uganda	2
Malawi	2	Zimbabwe	1
Mali	1	Total	21

The Savings for Transformation Core Project Model

The S4T core project model builds on the principles of the Village Savings and Loan Association model. In S4T, savings groups of 15 to 25 people meet regularly (typically weekly) and contribute communally to a savings fund over a set period of time called a “cycle.” At their assigned turn, a group member can take out a loan from the fund. At the end of the cycle, each group member receives their share plus a portion of service fees charged to those who take out loans.

A secondary fund, known as the social fund, is also created within each S4T group. The social fund provides small grants for members experiencing emergencies and, in some cases, can support vulnerable children within the community.

Savings groups can be an effective way to expand financial inclusion. According to the World Bank, 1.4 billion people are unbanked, most of whom are women, individuals with low education, and the poor.

WVC’s S4T groups aim to build resilient and sustainable livelihoods through three main channels:

1. **Developing the financial skills of their members** through experiential education during participation in savings and borrowing transactions within S4T groups.
2. **Providing members with access to funds** to cope with household emergencies and effectively meet their own or their children’s educational, health/nutrition and child protection needs.
3. **Empowering communities** by generating a social safety net for members and connecting individuals from traditionally vulnerable groups who are often financially excluded.

Methodology

The scope of the analysis encompasses the period 2019 to 2021. The number of S4T implementations is 78 projects across 21 countries.

Some assumptions have been made based on the limitations of available data. The number of participants in a given savings group is estimated at 15-25 individuals.

The CBA compared outcomes against a counterfactual of no access to savings groups, meaning benefits are calculated only for those who were financially excluded.

Cost data were derived from two sources. The first is WVC-reported project costs, which is based on an estimate of the number of core project models within an area program.

The second source is an external estimate¹ of the average cost-per-participant based on CARE’s implementations of similar savings groups programs. While it has its limitations, this cost

¹ Krause, H. (2022). [VSLA By the Numbers: A Comprehensive Analysis of the Impact and ROI of VSLAs](#). CARE.

estimate is likely more accurate than the current WVC data in terms of the overall cost of implementation, due to current technical limitations.

Table 2 lists the benefits, costs, and perspectives relevant to the CBA model of the S4T CPM. Of note, C1a and C1b represent the two cost estimate approaches described above and are not additive with each other. The data in this summary references the external cost estimate (C1b) unless otherwise noted.

Each column represents a perspective impacted by the interventions. The data refers only to socioeconomic costs and benefits. This means it does not include: interest payments (because they are transfers within the group); socialization and opportunity cost of time; and empowerment of women (due to limitations in available valuation methods).

Table 2. Benefits, Costs and Perspectives

Impacts	S4T Participants	Community	WVC
B1 Consumption Smoothing	✓		
B2 Increased Income and Economic Growth	✓	✓	
C1a Project Implementation Costs (with WVC Reported Data)			✓
C1b Project Implementation Costs (with External Cost Estimate)			✓

The two benefits are consumption smoothing and increased income and economic growth.

Consumption smoothing

Consumption smoothing measures the monetary value of the ability to shift consumption to times of greater need, which improves welfare. For example, having the funds for a meal is much more valuable during a period of scarcity, such as a natural disaster, than in times of abundance, like the harvest season.

The monetary value is arrived at by calculating the equivalent cash transfer that makes the participant as well off as they are in a savings group.

Increased economic growth

Access to affordable credit allows households to make productive investments. Increasing household productivity leads to economic growth for the community and higher income for the household.

Calculation of the benefit considers three factors:

1. Estimating the amount of borrowed funds used for investing.
2. Estimating the return per person per period.
3. Estimating the total return for each implementation per program.

Project implementation cost

The financial costs associated with the S4T core project model centre on community mobilization and the creation and ongoing support of the savings groups. This is the cost incurred by WVC to implement S4T in each project area.

Project costs are estimated using external data representing the cost-per-participant in setting up village savings and loan associations. To calculate the cost, the variables used are the average cost by savings group and the number of participants by period.

Portfolio-Level Results

The portfolio of 78 WVC-funded implementations of S4T across 21 countries between 2019 and 2021 reached **171,348** participants.

Overall, using estimates of S4T costs from external data, the portfolio created **\$48,013,771** in benefits at a cost of **\$8,545,144**. The portfolio's benefit-cost ratio (BCR) is **5.62**, meaning that every dollar invested in S4T generated an estimated **\$5.62** in economic and social benefits. The BCR is arrived at by dividing the benefits by the costs.

As the BCR exceeds the benchmark of 1.0, these results indicate that WVC-funded investments in the S4T portfolio were a good use of funds.

Table 3. Aggregate results of the S4T model

Cost Type	Present Value of Benefit	Present Value of Costs	Benefit-Cost Ratio	Net Present Value	Total Participants
WVC Cost Estimates		\$8,310,787	5.78	\$39,702,984	
External Cost Estimates	\$48,013,771	\$8,545,144	5.62	\$39,468,627	171,348

Among the total benefits of \$48,013,771, the consumption smoothing benefit accounts for \$45,431,728, while the increased income and economic growth benefit accounts for \$2,582,043. (Note that while data for WVC cost estimates are also presented, the choice of cost estimate does not affect the present value² of the benefits and has a minimal impact on the implementation cost.)

² (Net) present value is a way to determine how much money something will make or cost in the future by accounting for the time value of money. It is calculated by subtracting the present value of the costs from the present value of the benefits.

Country-Level Results

Figure 1 shows the benefits-per-participant for each country analyzed in the S4T portfolio and the external cost-per-participant. The benefits-per-participant can also be thought of as the break-even point: If the costs per participant are equal to the benefits per participant, then the BCR is 1.

Of the 21 countries in the analysis, nine countries have benefits-per-participant greater than the cost-per-participant when using the highest costs from the external estimate (called the “upper bound”). If the lowest costs (lower bound) are used, then 20 of 21 countries have benefits-per-participant greater than the cost-per-participant.

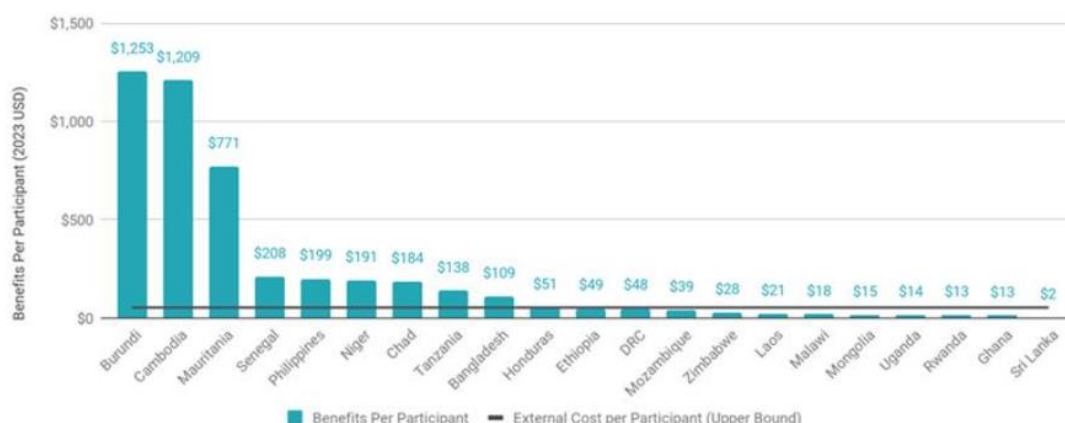


Figure 1. Benefits-per-participant and External Cost-per-participant

Project-Level Results

As shown in Table 4, the median project (when ranked by NPV) creates **\$66,536** in benefits at a cost of either **\$45,800**, using external estimates or **\$84,871**, using WVC’s cost estimate. The median project using WVC’s costs is not considered cost-effective (BCR 0.74, which is less than one), while the average project is. This suggests there are several projects with high BCRs skewing the results.

Table 4. Median and average project results

Cost Type	Present Value of Benefits	Present Value of Costs	Benefit-Cost Ratio	Net Present Value	Total Participants
Median Project					
WVC Costs	\$66,536	\$84,871	0.74	\$(11,880)	913
External Estimate of Costs		\$45,800	1.97	\$12,792	
Average Project					
WVC Costs	\$615,561	\$106,549	4.54	\$509,013	2,197
External Estimate of Costs		\$109,553	7.92	\$506,008	

Learnings

The CBA findings highlighted four areas for consideration or further investigation.

1. **Although it seems counterintuitive, targeting countries with high financial exclusion rates may not significantly increase the cost-effectiveness of S4T projects.** For this analysis, data indicates the financial exclusion rate (the percentage of people unable to access or utilize basic financial services) was not highly correlated with the BCR of the project.
2. **Using the external cost-per-participant limits some potential learning and eliminates evidence of economies of scale.** While this approach is preferred by the analysis, the method of estimation loses the potential country-level variation in cost that drives the differences in cost effectiveness. (See Methodology.)
3. **Conversely, using WVC data to estimate costs suggests the existence of economies of scale when implementing S4T programs.** An increase in the number of participants is associated with a decrease in the cost-per-participant. This finding implies that larger programs are more cost efficient in reaching participants. However, because the cost data estimates are derived from multiple different (non-S4T) core project models used within the same area programs, it is not possible to get completely accurate data for S4T alone.
4. **Calculating more accurate estimations of S4T's cost effectiveness is possible if data specific to each savings group becomes available.** For example, more specific data can allow for calculation of the consumption smoothing benefit on a per-implementation basis.

Conclusions and Recommendations

Overall, the portfolio of WVC-funded implementations of S4T from 2019 to 2021 is found to be cost effective. The portfolio of implementations is estimated to have reached 171,348 participants at a cost of \$8,545,144, generating \$48,013,771 in benefits. Using the conservative estimate of program costs, every dollar spent on S4T is found to yield \$5.62 in benefits for participants, mainly seen through consumption smoothing.

This analysis also reveals areas in which the monitoring and evaluation of development investments, as well as financial reporting, could be expanded to support future analysis of S4T.

1. **Future iterations of any WVC programming should disaggregate cost data at the CPM level.** This would allow for more in-depth analysis of the cost effectiveness within different contexts and increase the precision of project cost and impact estimates. Implementations of S4T should aim to report the fixed and overhead costs associated with project implementation as well as the variable cost per creation and operation of a savings group.

2. **Future iterations of S4T should collect group-specific data.** Having data on the organizational, administrative and financial characteristics of the savings groups would allow for more precise calibrations of the model used to estimate consumption smoothing benefits. Helpful data would include the number of participants per savings group, the average wage of participants, the price of the savings group's shares, the interest rate on borrowing, the average time of each meeting, and the baseline financial inclusion amongst participants.
3. **Collect women's empowerment data.** The benefit of increased women's empowerment could not be included in this analysis due to a lack of monetization strategies around women's empowerment. (Empowerment includes such outcomes as taking a larger role in household financial decisions and becoming more active in their community.) However, it is possible to conduct a cost-effectiveness analysis on this measure. Future programs should collect data on measures of women's empowerment to allow for cost-effectiveness analyses on S4T's ability to impact this measure.