Collective and Sustainable Investment for People and Nature

A CARE-WWF Alliance Impact and Learning Brief

INTRODUCTION

The CARE-WWF Alliance designed a Collective and Sustainable Investment (CSI) model to accelerate the access of small-scale farmers and community-based conservation groups –particularly the women and youth members – to finance and scale economic activities that sustain or improve ecosystems critical to their livelihoods. This learning brief outlines the method, findings, and recommended next steps.

The CSI model was built on the foundation of CARE's Village Savings and Loan Associations (VSLAs), which provide flexible financial services (savings, credit and insurance) to those historically marginalized from the formal banking sector. VSLAs are self-managed groups of 15 to 30 individual members from within a community who meet regularly to save their money in a safe space, access small loans and obtain emergency insurance through what is called a social fund. Historically, at the end of each VSLA cycle, VSLA members divided their shares saved for the year, including the profit gained from loans.

VSLAs have been shown to enhance the economic and social power of individual and groups of women and youth farmers with social and human capital through money management skills, increased financial capital (access to savings and credit), and increased confidence and trust within their communities. Research demonstrates that VSLAs significantly improve household cash-flow management and the ability of households to meet basic needs like food security and to mitigate the impacts of crises (Krause 2022 and Pienaah & Luginaah 2024). However, traditional VSLAs have not generally considered the environmental impacts of enterprises they support, resulting at times in the creation of environmentally harmful businesses. Moreover, VSLA member groups have traditionally been averse to launching joint businesses that require larger scale investments to succeed.

The CARE-WWF Alliance's CSI model addresses the barriers identified by integrating two key innovations: collective investments and sustainable investments.

Collective investment: Drawing from CARE's innovation, the Alliance defines a collective investment as "an investment combining efforts and money of three or more people to achieve a shared business objective." Individual VSLA members' investments are often characterized by limited access to physical and financial resources, high transaction costs, and low returns on investment. Collective investment, by contrast, offers an opportunity to raise funds, mobilize resources together, and share risks in ways that maximize returns. By introducing collective investment, this model seeks to enable small-scale farmers to leverage the social benefits of collective action and access the economic benefits of economies of scale.

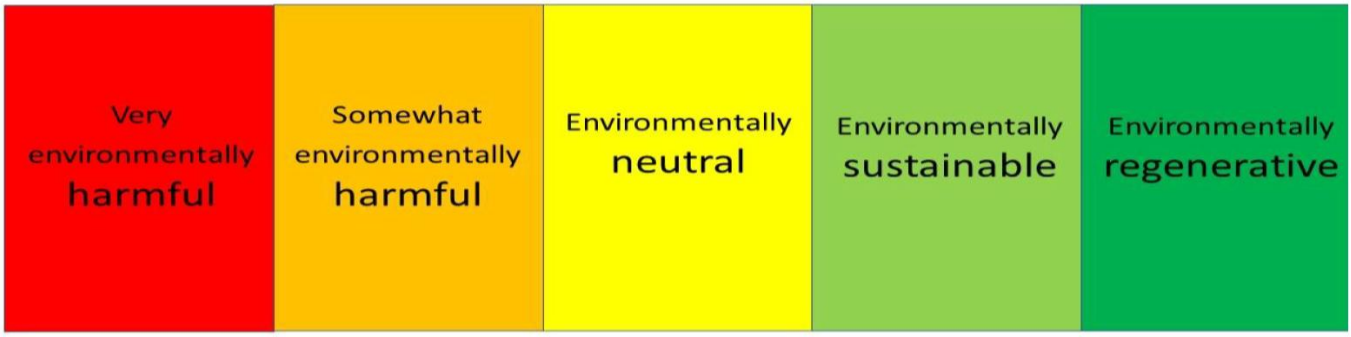
A collective investment can be made by three or more members within the same VSLA, by all of a VSLA's members, or by a cooperative of VSLA groups investing together. To incentivize collective investment by VSLA groups comprised predominantly of small-scale farmers, the CSI offered the groups the flexibility to create a dedicated fund such as an agri-fund for the collective purchase of agricultural inputs or other shared agricultural investment. The idea for this flexible mechanism is built on traditional VSLAs' establishment of social funds into which weekly contributions are made for collectively agreed-upon priorities.

Sustainable investment: A *sustainable investment* is defined as an investment that aims to protect or restore the natural environment and strengthen resilience to the impacts of climate change. In operational terms, the Alliance defines a *sustainable* investment as contributing positively to *two or more components* of environmental sustainability, and a *regenerative* investment as contributing positively to *three or more* components of environmental sustainability. *Figure 1* demonstrates the five components of environmental impact identified in the Alliance CSI model, while *Figure 2* shows the sustainability continuum introduced to the VSLAs.

Figure 2. Five components of environmental sustainability

Component of Sustainability	Key impacts to consider
Water	Quality, quantity
Soil	Quality, quantity
Natural vegetation	Cover, quality
Diversity of plants and animals	Concentration, range
Climate	Mitigation/ emissions, adaptation

Figure 1. The CARE-WWF Alliance sustainability continuum



The CSI tested two key incentives for sustainable investment. The first was a dedicated fund similar to agri-funds but focused on conservation: CSI provided conservation VSLAs the opportunity to establish *conservation funds* for collective investment in the restoration or management of common pool resources, such as water sources, that support livelihoods. The second incentive was an option for VSLAs to adopt preferential loan conditions for sustainable investment. In this scenario lower interest rates and/or longer repayment periods for (likely collective) investment deemed sustainable. This was presented as an economic incentive to encourage those engaging in environmentally sustainable activities that will benefit the community in the long run but whose rewards (e.g., to an individual) will not likely be realized in the short run.

THE CARE-WWF ALLIANCE TANZANIA CSI PILOT

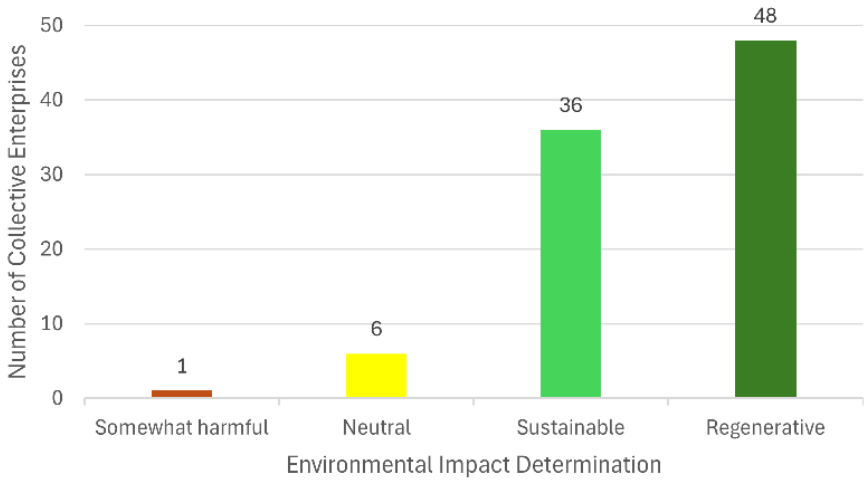
The innovative CSI model was conceptualized and piloted as a component within a larger three-year CARE-WWF Alliance project in the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), where the Alliance was already working with VSLAs and conservation groups. The objective of the second phase of this program was for 5,000 Tanzanian farming families (at least 60% women) to increase their household incomes by at least 60%, while improving the ecosystem services in production landscapes. The CSI model was a key innovation to deliver on the project's integrated development and conservation goal.

The pilot required VSLA groups who adopted the CSI model to update their constitutions to articulate how collective and/or sustainable investments would be operationalized (e.g., through weekly investments in an agri-fund or conservation fund). Once their constitution was updated, the VSLA members chose how they wished to invest their financial resources, time, and energy to pursue shared objectives.

During the one-year pilot, the Alliance trained 114 VSLA groups using the CSI model. Twenty-four of the groups included members of various community-based conservation groups that formed VSLAs. All 114 of the pilot VSLAs revised their constitutions to accommodate collective investments (e.g., clarifying how they will divide benefits, share losses, etc.) and adopted agri-funds. However, no groups incorporated preferential loan conditions (e.g., reduced interest rate, longer repayment period) to incentivize environmental sustainability. Meanwhile, five of the 24 community-based conservation groups (21%) updated their constitutions to establish a conservation fund and contributed a certain amount monthly toward that end.

Of the 114 groups who made changes to their constitutions, 53 (47%) ultimately made collective investments. This equated to a total of 930 VSLA members (63% women) investing more than US $68,000 in 91 collective enterprises.[1] Eighty-four (92%) of the 91 enterprises were nature-based enterprises (NBEs) deemed either environmentally sustainable or regenerative (Figure 3). Forty-eight (53 %) of the 91 were deemed regenerative (including 27 tree nurseries and 21 apiaries). Thirty-six (40%) of the 91 collective enterprises are deemed sustainable (including 12 investments in bean production, 12 in maize production, four in green peas and cowpeas production, one in Irish potato production, one in onions, one poultry and three in pig husbandry. One group of livestock keepers collectively invested in tick control through the provision of dipping services. This investment was considered harmful to the environment because of the environmental and human health risks associated with the use of acaricides. Six other investments 1 power tiller hiring service, 1 kindergarten school, 3 buying and selling maize, and 1 tailoring) were considered neutral.

Figure 3. Collective enterprises by environmental impact



In 2022, the Alliance engaged Tanzanian researchers to understand the barriers and enablers of the CSI model adoption as well as its ecological, economic, and social outcomes, both intended and unintended. Research methods included:

- Twelve sex- and age-disaggregated focus group discussions (FGDs) with men, women, and youth purposively sampled from four VSLAs across two of the 21 villages participating in the project: one village per district (Iringa and Mufindi).
- Semi-structured interviews spanning both the two project districts were also conducted with 7 district government officials, 19 community-based trainers (CBTs) and 3 Alliance staff.

[1] The Alliance defined an enterprise as a business (i) managed by a group of three or more individuals that (ii) seeks to do no harm to the environment and contribute to at least two of the five components of environmental sustainability, and (iii) has a simple business plan, accounting records, and clear agreements about how to make collective decisions and what to do with profits.

- Observation – both from visiting collective and sustainable enterprises established through the model and of a one-day CSI learning event for CBTs, Community Development Officers (CDOs) and Alliance staff – to supplement insights from FGDs and interviews.
- Quantitative data collected through an independent endline evaluation, project monitoring and evaluation including activity tracking and household surveys. [2]

KEY FINDINGS

Economic Outcomes: Increased and diversified incomes

A critical economic outcome of the pilot model was the increased income among farmers. Although not attributable only to this model, the larger Alliance project increased average household income by 102% (Masenga 2023).[3] In part, this is because the CSI training helped VSLA members to identify markets for their NBEs, including but not limited to commodities based on Irish potato and common bean value chains (promoted by the wider project) as well as the cash crop, soybean, which sells at higher prices than staple -crops such as maize.

Notably, female-headed households saw their income increase by 157% relative to male-headed households at 145% (Masenga 2023).[4] In other words, the economic outcome of CSI contributed to increased economic empowerment for women participants (as noted in more detail, below). For example, women VSLA members invested collectively in a hammer miller to process soybeans and are currently saving to install electricity for its sustainable use.

The CSI model also contributed to the emergence of rural entrepreneurs engaged in new income-generating opportunities that increased resilience to climate change. The evaluation suggested that the CSI training raised farmer awareness about the benefits of diversifying their income-generating activities beyond rain-fed agriculture, motivating them to engage in non-farm activities that may result in more stable incomes in the face of a changing climate. In Utosi village, farmers report leveraging the environmental services of improved water flows (see below) to irrigate their horticulture production – reducing reliance on rain-fed agriculture when drip irrigation was not possible due to low water flows.

The evaluation also observed the emergence of non-farm activity investments among VSLA members, such as food catering and tailoring, and a day care school. This entrepreneurial mindset marks an important shift that the evaluators argue women and other VSLA members will carry with them into the future.

Ecological Outcomes: Freshwater conservation and sustainable livelihoods and behaviors

The most substantial environmental outcome was the increased quantity and quality of water flows. The evaluation found that the CSI model accelerated community-led water source restoration and protection actions initiated by Alliance-supported Village Land Use Planning (VLUP) and Community Conservation Action Planning (CCAP) interventions in the wider project. In both villages, community members reported increased river water levels and flows throughout the year. This is substantiated by 2023 flow data, which show a 178% increase during the wet season and a 105% increase during the dry season relative to the same periods at the 2021 baseline (Rufiji Basin Water Board 2021 & 2023).

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[2] The evaluation was co-designed with strategic input from the CARE-WWF Alliance team and carried out by AB Consult, a consultancy connected to the Sokoine University of Agriculture's College of Economics and Business Studies, based in Morogoro, Tanzania. If not otherwise referenced, all qualitative data in the findings and lessons section is attributable to this evaluation.

[3] Per Masegna's report, the average income was US $1011.73 or 2,559,543 TZS at endline with an N of 263 respondents and a 95% confidence level, up from US $500 or 1,265,658 TZS at baseline. The life or project target of a 60% increase in income was surpassed by 42%.

[4] Per Masegna's report, female-headed household income averaged US$ 639.87 or TZS 1,728,015 at endline relative to US$ 249.28 or TZS 673,200 at baseline, whereas male-headed household income averaged US$1,255.72 or TZS 3,391,071 relative to US$ 512.55 TZS 1,384,150 at baseline. These changes contributed to closing the income gender gap by 3%, which does not represent a statically significant change relative to the baseline values.

The uptake of environmentally responsible behaviors, including but not limited to investment in NBEs, was substantial across agriculture- and conservation-focused VSLAs, alike. Even non-conservation VSLAs began collectively investing in tree nurseries including local tree species that replenish the water table – increasing the supply of these critical assets for watershed restoration throughout the 21 project villages. Planting indigenous, water-friendly trees (*Syzygium spp*, known locally as *Mvengi*) both enhances natural vegetation cover and contributes to water source recharge. Another key NBE is beekeeping and honey production, the establishment of apiaries on trees in water sources not only generates income but also constitutes a financial incentive to keep trees standing and water sources protected. Public institutions, such as the Rufiji Water Basin Authority and Ruaha National Park, are now coming to these most established plant nurseries run by conservation VSLA groups to buy native trees to plant in other water sources – i.e., the model is contributing to wider-scale biodiversity restoration efforts. (Masenga, et. al, 2023.)

Social Outcomes: Women's empowerment

The income gains and economic outcomes through the application of the CSI model in the project noted above have contributed to women's empowerment as a result of changes in gender norms and social dynamics. In addition, alongside Alliance-supported VLUPs that prioritized joint titling of land for women and men, the CSI model has helped challenge the perception that women cannot be breadwinners or landowners.

By normalizing women's savings, investments and enterprises, women's increased income and standing has paved the way for the formalization of women's land tenure in the form of Certifications of Customary Right of Occupancy (CCROs) in their names. One of the women in Ibumila village said: "Before the project, women were just waiting for the men to bring something home and it was difficult to own land because we don't have income and we could not engage in economic activities. But through the project, we have managed to save and buy or to rent land for farming activities. When we sell our harvest of soybeans or common beans. … We can make decisions with our husbands to buy land. Now in this village, women are also owners of land."

The evaluation suggests that the CSI model has also contributed to increased joint decision-making between men and women at the household level. A critical component of the CSI model, gender training led by Alliance-trained community-based trainers and ward community development officers focused on women and men's awareness around historical gender dynamics at the household level. As women take a leadership role in collective and sustainable enterprises, the shift toward more shared decision-making at the household level reportedly relates to loan requests and use, participation in collective investments, and use of household land and income.

In addition to these women's empowerment outcomes, the evaluation found some unintended consequences in the relationship between men and women at the household level. Both men's and women's FGDs reported that women's economic empowerment contributed in some cases to increased feelings of insecurity, marginalization and intimidation among men and increased conflicts at the household level. Manifestations of such conflict range from men forbidding their wives to join VSLAs to one reported case of gender-based violence (GBV). Moreover, the perception among some community members that collective investment is not for men may also have undermined model adoption and outcomes. (Masenga, et al., 2024).

KEY LESSONS

Shifting mindsets: Mainstreaming the environment into economic decision-making

VSLA members' self-reported understanding of what comprises an environmentally sustainable investments increased from 53% before introducing the CSI model to 85% after the one-year pilot (Mkusa, et al. 2023). The sustainable investments model introduced VSLA members to the sustainability continuum, such that VSLAs members – largely small-scale farmers – discuss what each borrower intends to do with the loan in their groups

and evaluate the likely environmental impact of the proposed investments before distributing funds. FGD participants report that if a proposed investments was found not to cause harm to the environment or contribute to climate change, then that loan was granted.

Moreover, VSLA members report rejecting some proposed projects that would have invested in agricultural inputs and activities considered to be dangerous to the ecosystem. In this way, the evaluation confirmed that the CSI training and model helped lead shift the mindset of women farmers, youth and other VSLA members around environmentally responsible investments. According to one FGD participant, the CSI model has reduced the notion of "common properties such as water sources and forests as being property of nobody; instead, it has inspired common responsibility for its protection."

Mixed success of incentive structures: Dedicated funds and preferential loan conditions

The CSI model had mixed success with the two incentive structures piloted to further incentivize environmentally responsible investments decisions. The evaluation found that the flexibility of these dedicated funds enabled all of the VSLAs that adopted the model to establish agricultural, conservation and even educational funds to support the VSLAs' identified priorities.

The second incentive structure piloted with far less success was preferential loan conditions for sustainable investments. In practice, no VSLAs participating in the pilot adopted preferential loan conditions for sustainable investments. Explanation, promotion and understanding of this concept in the rollout of the CSI model appears to have been inadequate. FGDs revealed that VSLAs participating in agricultural investments are very focused on economic returns, which would have been undermined by preferential loan conditions.

Another potential barrier to adoption relates to the lack of accountability around investment outcomes. In other words, VSLA members had no way of verifying that the loan was utilized as intended or that the positive environmental impact that a preferential condition would have rewarded was realized. The lack of a loan monitoring and accountability system potentially led to the concerns within groups that they could be misled during the loan application process. This perverse incentive would need to be addressed to increase the probability of adoption.

Unintended consequences: Intrahousehold, gendered and intergenerational, village conflicts

In addition to the intrahousehold gendered conflicts mentioned above, another unintended consequence of the model was an increase in natural resource related conflicts amongst villagers. Intergenerational conflict has often emerged around the traditional practice of *vinyungu*, i.e., cultivating crops in and around riverbeds. While many villagers were already aware of bylaws forbidding river-bottom cultivation, the sustainable investment curriculum and other Alliance interventions created more focus and interest in enforcing these bylaws. One young woman from Utosi's conservation VSLA explains: "Conflict is common especially with elders who have been practicing vinyungu cultivation. When you inform them about the environmental impact of their activities, they always treat us like, 'you are just young ones, and you know nothing.' In some cases, even they threatened us on our life." Unsurprisingly, youth VSLA members did not feel prepared to handle such conflicts.

THE MAJOR TAKEAWAY: CSI adds value to savings and conservation groups

CSIs add value both to the basic VSLA model and to conservation programming. Interviews with CDOs in Mufindi and Iringa suggest that the CSI model has increased trust among VSLA members (particularly in smaller groups), as well as between the savings groups and other stakeholders. In addition, the evaluation found that use of digital savings records increased VSLAs members' confidence to engage in collective investments due to improved transparency in financial management. CDOs also reported that district governments are more willing to grant loans to members of Alliance-supported VSLAs relative to other savings groups because the CSI model has increased trust between members and encouraged them to engage in income-generating activities that ease loan repayment.

Moreover, Alliance staff observed that farmers were more motivated to participate in VSLAs after the introduction of collective investments, which tended to increase economic profits in the form of end-of-cycle share-outs. The commitments that members make to participate in weekly VSLA meetings also meant that members of conservation VSLAs meet more regularly than they did when their community-based conservation organizations did not follow the VSLA model – both to buy shares but also to discuss conservation next steps.

RECOMMENDATIONS

Given the promising economic, ecological, and social outcomes of the pilot, the CARE-WWF Alliance and the evaluation team recommend wider rollout of the model in CARE and WWF programming and beyond.

Learning from the above lessons, several adaptations should be made as the curricula are finalized:

A streamlined curriculum that integrates the collective and sustainable investment curricula (currently separate), and includes adequate facilitator's guidance, would enable upscaling through CARE's VSLA and WWF's conservation programming. Alternatively, the stand-alone environmental sustainability module could be adjusted – with clear guidance on how to layer and sequence it with other CARE VSLA modules.

The components of environmental sustainability should be updated to encompass a wider array of ecosystem realities. The sustainability continuum was designed specifically for the terrestrial context of rural Tanzania in which crop agriculture dominates. It would not currently be appropriate for application in marine contexts, for example, in which fishing livelihoods dominate. To be more widely applicable, additional components of sustainability should be added to ensure applicability across diverse ecosystems.

A feasible loan monitoring system should be introduced to support greater accountability around using loans deemed sustainable in ways that deliver positive environmental outcomes. Alongside greater attention to demonstrating how and why preferential loan conditions could function, this could increase the potential uptake of this incentive for environmental mainstreaming in investment decision-making.

Enhanced conflict mitigation mechanisms to reduce the likelihood and impacts of conflicts in households between women and men (including GBV) as well as within communities amongst generations should be integrated into the CSI model to improve environmental and social (especially gender) outcomes. For example, integrating gender dialogues and enhancing the inclusion of men and boys to champion women's and men's participation in CSI activities, as well as strengthening conflict mitigation skills of VSLA members and village leaders, should be considered.

CONCLUSION

In summary, a mixed-methods final evaluation concluded that the CSI model contributed to significant economic, ecological and social outcomes. The unintended consequences identified are meaningful but surmountable. CARE and WWF are eager to work with other stakeholders to streamline, adapt and continue to study the model for uptake globally.

As the next iteration of the curriculum is rolled out, additional research is recommended to support any final adaptations for local contexts and prior to widescale upscaling. Rapid prototyping and action research can shape stakeholder-informed learning and adaptive management to ensure the model is adapted to local economies, cultures, and ecosystems. Qualitative research is needed to better understand why women's economic empowerment contributed to men's insecurity and increased intrahousehold conflicts and if the proposed gender norm transformation approaches effectively mitigate those unintended consequences. A quantitative study determining the economic, social and ecological return on investment would also be advisable. Such robust research and evidence will support upscaling of the CSI model across CARE and WWF.

REFERENCES

Krause, H., and We All Count Research Team. 2022. "VSLA by the Numbers: A Comprehensive Analysis of the Impact and ROI of VSLAS." Accessed August 13, 2024. https://www.careevaluations.org/evaluation/vsla-by-the-numbers-a-comprehensive-analysis-of-the-impact-and-roi-of-vslas

Masenga Business Consultancy. 2023. "Endline Evaluation of Savings and Credit Groups for Food Security and Ecosystem Sustainability in Tanzania: A CARE-WWF Alliance Project Implemented in SAGCOT-Ihemi Cluster, Mufindi and Iringa Districts (2021-2023)."

Mkusa, L., W. Kipondya, A. Kijoji, and E. Makfura. 2023. "Collective and Sustainable Investment Endline Assessment Report." CARE-WWF Alliance.

Pienaah, C.A.K., and I. Luginaah. 2024. "The Impact of Village Savings and Loan Associations as a Financial and Climate Resilience Strategy for Mitigating Food Insecurity in Northern Ghana." Risks 12, no. 4: 58. https://doi.org/10.3390/risks12040058

Rufiji Basin Water Board, December 2023. “Hydrological Report Month July - December 2023

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PHOTOS

All photos are from the CARE-WWF Alliance project in the Southern Agricultural Growth Corridor of Tanzania (SAGCOT).

Page 1:
Top: Lugodalutali Village Conservation VSLA and community members.
Middle: Lidia Kivinge, VSLA member, farmer, and businesswoman, Utosi Village.
Page 3: Sara Patison Ngairo, Conservation VSLA group leader and co-owner of native species nursery, Lugodalutali Village.
Page 4: Rose Musofi, Conservation VSLA group leader, farmer, and businesswoman, Ibumila Village.
Page 5: Beekeeping apiary co-owned and managed by VSLA group in CARE-WWF Alliance program.
Page 6: VSLA secretary takes notes during weekly meeting.

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