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Sida Evaluation

Nordic Consulting Group A/S

Impact study of the Strengthened Accountability Programme, a programme for small-scale miners in Zambia

A case study as part of the Central Evaluation of Sida's work with Poverty

Sida

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Abbreviations

CCPJ	Catholic Commission for Peace and Justice
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
DiD	Difference-in-Differences
GBV	Gender-Based Violence
GoS	Government of Sweden
GoZ	Government of Zambia
HCA	Humanitarian Crisis Analysis
HH	Household
HPF	The Health Pooled Fund
HRBA	Human Rights-Based Approach
LCMS	Living Conditions Monitoring Survey
M&E	Monitoring & Evaluation
MDG	Millennium Development Goal
MDPA	Multidimensional Poverty Analysis
MPI	Multidimensional Poverty Index
NGO	Non-Governmental Organisation
OPHI	Oxford Poverty and Human Development Initiative
PSM	Propensity Score Matching
RALS	Rural Agricultural Livelihood Survey
SAP	Strengthened Accountability Programme
SDG	Sustainable Development Goal
SEK	Swedish Kroner
SGBV	Sexual & Gender-Based Violence
SPO	Strategic Partner Organisation
SRH	Sexual & Reproductive Health
SRHR	Sexual & Reproductive Health Rights
ToR	Terms of Reference
USD	United States Dollars
ZDHS	Zambia Demographic and Health Survey

Executive Summary

This report presents an impact assessment of the Diakonia implemented Strengthened Accountability Programme (SAP) in Zambia. Caritas Zambia has implemented the SAP in Zimba District in Southern Province of Zambia. The intervention supported two small-scale mining communities (Chilobe and Chilubwa) and their collective action to demand higher prices for mining resources and better services for their communities. It also supported community members with conservation farming to allow them to diversify income sources.

The assessment forms part of the *Strategic Evaluation of Sida's Work with Poverty* and is based on quantitative and qualitative data collection from both supported and non-supported communities in Zimba District, desk review and stakeholder consultations in Lusaka.

We find a positive significant treatment effect on income primarily driven by enhanced mining income as no effects from diversification of income were realised. No effect was found on crop income due to inconsistent and low uptake of conservation farming techniques. However, there are some indications of positive effects on food availability. The impact of distribution of goats to community members has been weak.

We find significant positive impact on assets, such as housing quality, and concrete effect on women's ownership of fruit trees. Communities' access to water has been improved but no effect on health and sanitation services was realised.

Evidence indicates a significant positive impact on reduction of child labour in mining and enhanced application of protective gear. Enhanced joint decision-making and attitudes towards gender equality in the supported households was also realised but with no direct impact on reducing GBV.

While the SAP explicitly targeted youth and women this has not been sufficiently monitored in the intervention and can therefore not be sufficiently assessed.

1 Introduction

This report presents an impact assessment of the Diakonia implemented Strengthened Accountability Programme (SAP). The SAP aims to empower citizens in resource rich communities to claim their rights to benefit from local extractive industries. Caritas Zambia has implemented the SAP in Zimba District in Southern Province of Zambia which provides the setting for this impact assessment.

The assessment is part of the *Strategic Evaluation of Sida's Work with Poverty*. The evaluation is based on quantitative and qualitative data collection from three communities in Zimba District, desk review and stakeholder consultations in Lusaka.

It is important to note, that the assessment primarily serves a *learning purpose* rather than being an accountability exercise.

The report is organised in the following way: In Chapter 2, the contribution case is presented and contextualised. Chapter 3 includes an outline of the main data sources and methods applied in the impact study. In Chapter 4, a reconstructed results chain for the Caritas intervention is being presented and discussed. This is followed by a presentation of key impact findings in Chapter 5. Finally, in Chapter 6 the conclusions are presented.

Box 1: Sida defines multidimensional poverty as deprivations within four dimensions - resources, opportunities and choice, power and voice and human security. Sida defines a person living in multidimensional poverty as being resource-poor and poor in one or several of the other dimensions.

Note that this definition is broader than the definition used in for instance Oxford Poverty and Human Development Initiative (OPHI)'s national multidimensional poverty index (MPI) and the World Bank definition of multidimensional poverty that uses the MPI in combination with monetary poverty.

Source: Sida (2019), Dimensions of Poverty, poverty toolbox.

2 The Contribution at a Glance

Table 1. Overview of the Strengthened Accountability Programme

Contribution name	Strengthened Accountability Programme (SAP), Phase II
Agreement partner	Diakonia
Implementing partners	7-10 Civil Society Organisations (CSOs)
Implementation period	2018-2022 (incl. no-cost extension from 2021-2022)
Dates of approval	18/6/2018
Sida strategy	Zambia 2013-2017 and Zambia 2018-2022 Strategy[1]
Total budget	41,400,000 SEK
Total Caritas Zambia disbursed	Caritas Zambia to: SEK 2,211,416
Total Sida contribution	41,400,000[2] SEK
Sida poverty indicators	Resources, opportunities & choice, power & voice
Geographic coverage	Zambia, Lusaka (national level), 13 districts in North-western, Copperbelt, Luapula & Southern.
Sector/sub-sector	Governance & human rights

Source: Evaluation team's overview based on desk review

The SAP targets rural and peri-urban communities in resource-rich areas of Zambia, which, unlike initial expectations, had not benefitted from local extractive industries. Therefore, SAP strived to train and empower rights-holders, such as artisanal miners and community members, to claim their rights and advocate towards duty-bearers, such as private sector (mining companies and byers of minerals), and government authorities, to ensure that communities benefit from local economic activities.

SAP was implemented in two phases: SAP I from 2014 to 2018 and SAP II from 2018 to 2022. Diakonia was the agreement partner and fund manager, with overall implementation and monitoring and evaluation (M&E) responsibility.

[1] While the decision document refers to funding allocated under the Zambia 2013-2017 Strategy the evaluation of SAP II refers to fundings allocated under the Zambia 2018-2022 Strategy.
[2] According to the Decision document the total amount sums to 42,400,000 which includes an allocation of SEK 1,000,000 for an independent evaluation.

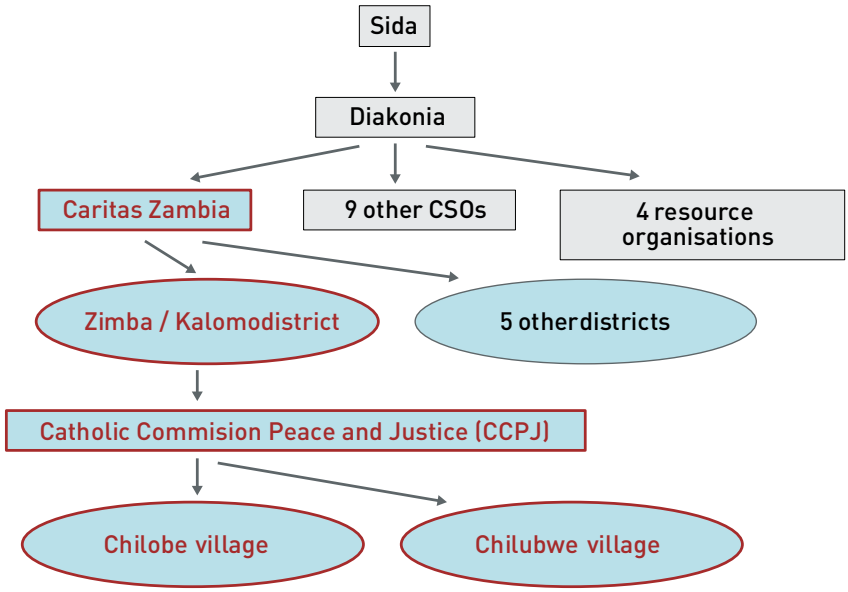
Box 2: *Direct* poverty reducing interventions target the poor end-beneficiaries directly and impact is expected to materialise in the short-term.

Indirect interventions work through longer results chains where impact cannot be expected to materialise in the short-term. Rather, indirect interventions aim at supporting the creation of preconditions for improvements for the poor.

Figure 1 below illustrates the main actors in the project. Local CSOs implemented the programme on the ground. SAP I had five implementing CSO partners,[3] while SAP II was implemented through initially 10 local CSOs, but towards the end of the implementation phase the collaboration was discontinued with three of the CSOs due to financial incidences. Besides the implementing partners, four resource organisations were engaged for capacity building of implementing CSOs.

Caritas Zambia was one of the 10 CSOs that implemented SAP II. Caritas implemented the programme in seven districts: Lusaka, Lufwanyama, Mwinilunga, Solwezi, Mansa, Kalomo and Zimba Districts.

Figure 1. Overview of project set-up



Sources: Evaluation Team's illustration of the project set-up. Light blue indicates the Caritas intervention while the red circle illustrates the areas and actors included in the impact study.

We focused our own data collection on Zimba District and to some extent Kalomo District (both located in the Southern Province). In Zimba, Caritas Zambia worked in

[3] End of Project Evaluation Report for the Diakonia, Zambia Country Office, Strengthened Accountability programme (2014-2017), November 2017.

two communities, Chilobe and Chilubwa. There they provided sensitisation, advocacy, awareness, training as well as different kind of input supplies mainly through artisanal mining cooperatives in two communities. The two communities were selected for support by Caritas after having visited five mining communities in the area. The main reason for selecting Chilobe and Chilubwa for support was accessibility (by road) and a high number of active miners. Duty-bearers from both Zimba and Kalomo District were targeted by Caritas since the districts are neighbouring each other and chieftaincies cuts across the districts.

Programme activities in these two communities were spearheaded on the ground by the Catholic Commission for Peace and Justice (CCPJ) based in the Kalomo Diocese who were designated as "foot soldiers".

SAP II is a relevant case for more in-depth impact data collection since it is a classic Sida funded CSO contribution. Both programme phases have already been subject to final evaluations, but these were carried out immediately after completion and relied primarily on qualitative, outcome-level data. Our intention has therefore been to explore whether impact can be measured a few years after implementation has been finalised.

In section 2.1 we elaborate on the Zambian project context before zooming in on artisanal mining in Zambia in 2.2. and the specific Caritas Zambia contribution in 2.3.

2.1 ZAMBIAN CONTEXT

Consumption poverty in Zambia, defined as the share of the population living on less than USD 1.90 per day, has risen over the past decade, increasing from 54% in 2015 to 58% in 2020 and 60% in 2022 (see Table 2). Both poverty and extreme poverty in Zambia have increased from 2015 to 2022. The depth of poverty, as measured by the poverty gap ratio, has however seen slight improvements in the same period and stunting of children has decreased between 2013 and 2024.

Still, these positive effects have been insufficient to counteract negative trends in both overall and extreme poverty at national level in Zambia during the period. In particular drought and COVID-19 have had a severe effect on poverty levels in Zambia during the period, and in 2022 the share living in extreme poverty had risen to 48% of the Zambian population.

Table 2. Key poverty indicators

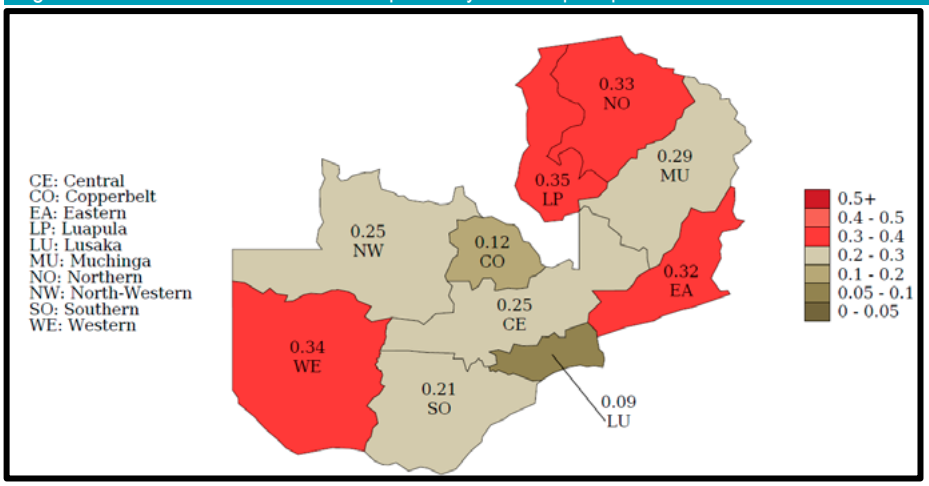
Poverty indicators	Data/evidence source	Baseline	Change **
% of population living in extreme poverty*	LCMS	2015: 40.8%	2022: 48%
% of population living in poverty	LCMS	2015: 54.4%	2022: 60%
Poverty gap ratio	LCMS	2015: 29.5%	2022: 26.8%

** Number of people living under the food security line; denominator: total population.*
***Red denotes deterioration over time. Green improvements.*

The share of the population identified as multidimensionally poor (based on the Multidimensional Poverty Index) was 48% in 2018, and the share in severe multidimensional poverty was 21%. See Box 1 for an explanation of the differences between Sida's poverty definition and the Multidimensional Poverty Index.[4]

Figure 2 reflects the poverty index per province based on Zambia Demographic and Health Survey (ZDHS) data from 2018. Luapula is the province with the highest poverty rates, and this was still the case in 2021 when Sida reassessed the poverty dimensions in Zambia as part of their Mid-Term Review of the country strategy.[5] Also, Eastern, Northern and Western Provinces are listed as the provinces with the highest poverty incidences.[6]

Figure 2. Multidimensional poverty index per province based on the 2018 DHS



Source: Global MPI Country Briefing 2020: Zambia, OPHI, July 2020. Data based on the 2018 ZDHS. The multidimensional poverty index is calculated as the prevalence (H) times the intensity (A), see the source for further details.

[4] Global MPI Country Briefing 2020: Zambia, OPHI, July 2020.
[5] Embassy of Sweden, Lusaka (2018), Poverty analysis Zambia 2018; Embassy of Sweden, Lusaka (2020) Mid-Term Review of Swedish Development Cooperation with Zambia 2018-2022.
[6] Embassy of Sweden, Lusaka (2020), Mid-Term Review of Swedish Development Cooperation with Zambia 2018-2022.

Zambia suffers from extremely high inequalities with a severe divide between rural and urban areas. 60% of the population lives in rural areas while 40% lives in urban areas. In rural areas, 79% of the population is poor in terms of consumption whereas this applies to 32% in urban areas. It is however noted that income poverty is increasing faster in urban areas. Table 3 reflects the rural urban divide.

Table 3. Poverty in Zambia disaggregated by rural/urban divide

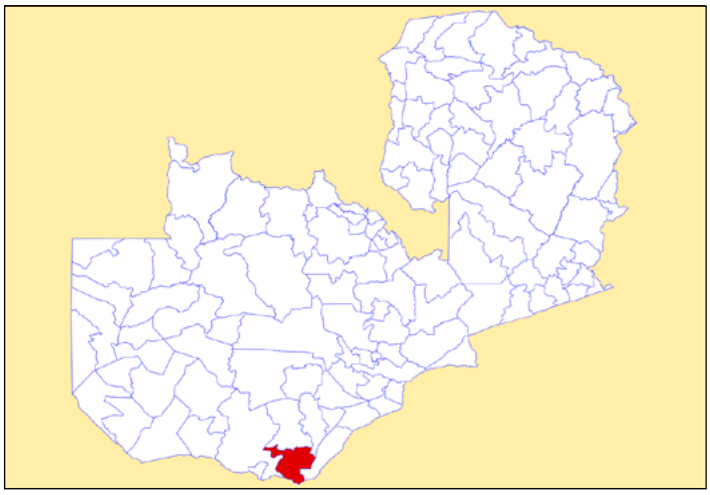
	Severe MPI poverty	MPI poverty	Consumption poverty (2015)	Consumption poverty (2022)
Urban (40% of the population)	6	21	23	32
Rural (60% of the population)	31	66	77	79
National	21	48	54	60

MPI = Multidimensional Poverty Index (health, education, resources). Sources for Consumption poverty: Living Conditions Monitoring Survey (LCMS) 2022, figure 12.1. Sources for rest: 2024 global MPI OPHI.

Intervention area

Zimba and Kalomo Districts are in the Southern Province of Zambia (Figure 3 illustrates a map of Zimba). Southern Province is characterised by extreme drought with an average annual rainfall under 800 mm which affects agricultural production, the main source of livelihood in the province.[7]

Figure 3. Map of Zimba District



The intervention area at community level is Chilobe and Chilubwa villages in Zimba District and the control group is Siankope. While Livingstone in Southern District is connected with a railway there is no station in Zimba nor Kalomo Districts. Kalomo is the easiest accessible larger town but all three communities are difficult to access by car due to poor roads, and it takes around 3-4 hours from Kalomo under good conditions. However, during rainy season the roads get flooded and when that happen the communities are not accessible at all. Chilobe is nearest to Kalomo and

[7] E.g. The African Centre for the Constructive Resolution of Disputes (ACCORD), (2023), Policy and Practice Brief, Knowledge for Durable Peace, When values inform approaches to climate security: The case of Zambia's Southern Province.

there is around 30 minutes from Chilobe to Chilubwa under good driving conditions. Siankope is within the same distance from Chilobe. The three communities' population sizes are reflected in Table 4. Households (HH) are estimated to consist of five persons.

Table 4. Population sizes in intervention communities and the control community

Parameter	Chilobe	Chilubwa	Siankope
Total population in communities	1,563	2,852	2,022
# of HHs in communities	312	570	404

Source: Evaluation Team's assessment based on consultations with local leaders in the communities.

There are at least 12 different minerals in Zimba District[8] of which several are highly relevant for the transition to renewable sources of energy. Five main mines nearby the communities provide livelihood for 400 miners of which a majority are women across different age groups, as well as many youths.

Picture text: to the left Chilubwa pit and to the right Chilobe pits

In Chilobe, miners were already organised in a cooperative while no cooperatives existed in Chilubwe prior to the intervention. There was also no cooperative in Siankope and no women's clubs in any of the communities prior to the intervention.

[8] Tungsten, Tin, White quartz, Red Garnet, Pink Stone, Tantalite, Aquamarine, Iron, Black Tamarind, Copper malachite, Amethyst and Lithium.

2.2 ARTISANAL AND SMALL-SCALE MINING IN ZAMBIA

The mining sector in Zambia contributed in 2022 to 11% of GDP and accounted for 79% of export revenues. While this is mainly driven by large-scale copper mines, other minerals are gaining importance, not least due to increasing global demand for minerals and metals for renewable energy. Artisanal and small-scale mining is a critical sub-sector of the mining industry in Zambia, and it is estimated to employ around 500,000 people. It is characterised by low-tech and labour-intensive extraction and processing of minerals, e.g. "undertaken manually, using only peaks, shovels and basins and sometimes using heavy mechanized machinery on a small-scale level."[9] Especially in rural areas artisanal mining has been an important source of livelihood. [10]

The artisanal miners typically rely on family labour and some casual labour. A substantial share of those engaged in the sector are women, youth and children. The buyers are often local companies. Unfairly low prices or dishonest behaviour of the buyers are common complaints of the artisanal miners.[11]

While artisanal mining holds economic potential, global research has also extensively demonstrated negative developments in terms of human rights violations, gender inequality, environmental degradation, poor health and safety records, disease and child labour.[12] Zambia is no exception in this regard.[13]

However, in contrast to many other countries, Zambia is highly regulated when it comes to mining and Zambia ranks at a "very high" level of formalisation in the World Bank's Mining and Governance Index.[14] Formalisation has primarily been a consequence of high prevalence of gemstones and more largescale mining (e.g. copper), and artisanal mining has only more recently received more dedicated attention.

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[9] EITI (2019), An Overview of Artisanal and Small-Scale Mining in Zambia.
[10] Kaczmarka, M.; Clube, R.K.M; Mubanga, F.C and Tomei, J. (2025), A policy and practice divide? Zambia's artisanal and small-scale mining sector and the Sustainable Development Goals, Journal of Rural Studies; Siwale, Agatha; Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.
[11] EITI (2019), An Overview of Artisanal and Small-Scale Mining in Zambia.
[12] Kaczmarka, M.; Clube, R.K.M; Mubanga, F.C and Tomei, J. (2025), A policy and practice divide? Zambia's artisanal and small-scale mining sector and the Sustainable Development Goals, Journal of Rural Studies; Siwale, Agatha; Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.
[13] EITI (2019), An Overview of Artisanal and Small-Scale Mining in Zambia.
[14] Siwale, Twivwe (2019), The current state of artisanal and small-scale mining in Zambia, Nov 6, 2019.

The role of artisanal mining has been set out in Zambia's Eighth National Development Plan (8NDP) and is thus today more acknowledged.[15] Regardless of this most legislation in Zambia has been designed for large scale mining rather than artisanal mining, and sometimes the legal framework even disincentivises small scale mining.[16] In recent years, the government has promoted formalisation and licencing of cooperatives and mining associations with the aim of enhancing miners' collective positions towards buyers of minerals and larger scale companies in Zambia. Collective action and licencing have been promoted as a magic bullet through which better access to credit, investments or state assistance is to be facilitated.[17]

Research[18] shows however that licencing of mining cooperatives and associations have not been the magic solution as envisaged. This is so for numerous reasons: in practice government policies prioritises large scale mining companies at the expend of small and artisanal miners and therefore access to investments and government support is not realised.

In fact, this research has shown that the formalisation process has fostered a centralising control over mineral-rich areas while artisanal miners have been displaced to marginal lands.

Cooperatives/associations are often hampered by gaps in internal capacities and governance structures, as well as lack of trust. Therefore, licence holders continue to rely more on informal trust-based networks than formal structures. At the same time competing informal institutions have emerged around resource extraction that undermines revenue generation and poverty reduction among miners.[19]

A study of artisanal mining in Chilobe and Chilubwa in the Southern Province by Caritas Zambia, as part of the Diakonia SAP project, largely confirmed the above-

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[15] Kaczmarka, M.; Clube, R.K.M; Mubanga, F.C and Tomei, J. (2025), A policy and practice divide? Zambia's artisanal and small-scale mining sector and the Sustainable Development Goals, Journal of Rural Studies; Siwale, Agatha; Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.

[16] Siwale, Twivwe (2019), The current state of artisanal and small-scale mining in Zambia, Nov 6, 2019.

[17] Kaczmarka, M.; Clube, R.K.M; Mubanga, F.C and Tomei, J. (2025), A policy and practice divide? Zambia's artisanal and small-scale mining sector and the Sustainable Development Goals, Journal of Rural Studies; Siwale, Agatha; Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.

[18] Agatha; Siwale (2018), Institutions and Resource Governance at the Sub-National Level: The Case of Artisanal and Small-Scale Mining in Zambia; Doctoral Thesis submitted to Central European University Doctoral School of Political Science, Public Policy and International Relations.

[19] Agatha; Siwale (2018), Institutions and Resource Governance at the Sub-National Level: The Case of Artisanal and Small-Scale Mining in Zambia; Doctoral Thesis submitted to Central European University Doctoral School of Political Science, Public Policy and International Relations.

mentioned challenges with artisanal mining in the intervention area. The study also shed light on specific contextual circumstances related to the two communities, viewed from the perspective of community members (external stakeholders were not consulted, which is a clear limitation of the study):

- Under-pricing relative to global prices was a huge concern.
- Discovery of lithium has increased extraction of minerals and attracted investors from across the country. Community members were fearing for their livelihood in this regard.
- There was significant deforestation.
- There was a significant use of child labour.
- Mining activities were conducted with very rudimentary basic tools such as picks and shovels and largely without any protective gear.
- Health concerns, including backaches, headaches, chest pains, and coughs were common complaints among the miners, while some women reported experiencing miscarriages. Incidents of mining-related accidents, leading to serious injuries and even death, were not uncommon.
- Water and sanitation conditions were poor leading to miners using unsafe water and share unsafe sanitation facilities.
- Presence of military personnel has created a climate of fear and intimidation among the locals.

Picture text: Both pictures are from the Chilubwa pit

2.3 THE CARITAS CONTRIBUTION

Funding

Table 5 provides an overview of the realised expenditures for Caritas Zambia. It is noted that interventions in Kalomo/Zimba formed minor parts of these activities and that they represent only two out of the total seven districts. There is no breakdown on activities per district.

Table 5. Expenditures for Caritas Zambia

Year	Disbursed ZMW	In SEK	PPP-$ per day and beneficiary HH*
2021	1,044,555	536,018	0.43
2020	1,230,784	501,471	0.58
2019	1,217,650	624,843	0.66
2018	1,043,921	549,184	0.62
Total	**4,536,910**	**2,211,516**	

Source: Caritas Zambia's annual reporting

** The expenditures were recalculated to the purchasing power in dollars using PPP-rates from the World Bank. We assumed the two villages got one seventh of all the money, and that the number of beneficiary households were 149.*

To put these figures into perspective, if we assume each district got an equal share (they didn't), and that an equal amount of these were invested in each of the 149 beneficiary households in Zimba, then this figure corresponds to the purchasing power of about USD 0,43 to 0,66 dollar per day *for a household*. This could be compared to the World Bank global "dollar per day poverty line," which was recently revised to USD 3 dollar per day *per person*.

Programme activities

The programme contained a broad range of components, which can roughly be divided into sensitisation of community members and promotion of new agricultural practices.

CCPJ foot soldiers took part in Caritas' needs assessment and selection of Chilobe and Chilubwa communities in 2019 and subsequently supported the communities during 2020 and 2021.

Caritas and the CCPJ foot soldiers supported the communities with awareness raising and sensitisation activities on community members' rights to benefit from mining activities, how to get better prices, prevention of child labour, application of safety equipment and preventing environmental degradation etc. The mining cooperatives was the main entrance point for this work, but sensitisation activities often also reached other community members through community gatherings.

The sensitisation component was the main and initial intervention in the two communities. Sensitisation of community members focused on their rights to benefit from mining, how to ensure environmental protection of mining areas, how to demand their rights towards duty-bearers through organising themselves in cooperatives and how to enhance safety and security of miners while conducting artisanal mining.

The cooperative in Chilobe was already established prior to the intervention but Caritas supported the formalisation process by supporting the registration of the cooperative and paid the application fee for the mining license. While local government gave their verbal support to the Chilobe cooperative to acquire a mining license in the end the Chief did not consent and instead the mining license was given to someone else.[20]

In Chilubwa, Caritas started more from scratch by sensitising the chief, headmen and community members on the benefits of forming the cooperative. The cooperative was formally registered but the cooperative did not reach the stage for applying for the mining license before the project was finalised.

The component on conservation farming was introduced later after realising that alternative livelihoods were needed given the contextual challenges for maintaining a livelihood. The component included sensitisation on conservation farming techniques and training in sustainable farming practices and techniques such as planting in lines, potholing, irrigated vegetable production and drought tolerant varieties of maize, sorghum, and legumes, drought tolerant varieties of vegetables as part of its broader efforts to build climate resilience and enhance food security for vulnerable communities.

The component also included a specific emphasis on organising women in clubs with a focus on goats rearing. Local goat breeds were provided to beneficiaries and as reflected in Table 6, 67 households benefitted from this support. Beneficiaries received a common introduction to goats rearing but besides that there was no additional training in how to further benefit from goats rearing.

Also, as part of the environmental and conservation farming training, 200 guava trees were provided to households and schools in the two communities. The purpose of the trees was to provide fruits for schools, ensuring shade at school areas and mitigating environmental degradation.

"Beneficiary households" typically only took part in a selection of programme activities. Table 6 provides an overview of how many beneficiaries confirmed in our survey to have participated in the either mining cooperatives (primary target group) or

[20] Sida/FCG (2022), Evaluation of the Strengthened Accountability Programme II, April 2022.

the women clubs. A total of 149 households (97 within Chilobe and 52 within Chilubwa) were classified as main beneficiaries from the support. Of these, 96 were members of the mining cooperatives. This means that 53 non-cooperative members households (28 in Chilobe and 25 in Chilubwa) also benefitted from other parts of the programme.

Table 6. Survey beneficiaries per type of group-membership

	Mining cooperative member	Women club member
Yes	96	17
No	53	132
Total	149	149

Source: Diakonia/Caritas Impact Survey, 2024.

Table 7 shows that many of the members in the mining cooperatives were not recipients of goats nor had training in conservation farming. In fact, only 25% (24 out of 96) of members of mining cooperatives received a goat. From Table 7 we can also note that women club members were less likely to be a goat recipient compared to other beneficiaries, despite the intention of making women's clubs main recipients of goats.

Table 7. Correlation matrix of key activities

	Mining coop member	Women Club Member	Recipient of Goats	Recipient of conservation farming training
Mining coop member	1.000			
Women club member	0.002	1.000		
Recipient of goats	-0.540	-0.070	1.000	
Recipient of conservation farming training	-0.141	0.127	0.179	1.000

Source: Diakonia/Caritas Impact Survey, 2024.

Note: Each cell displays the correlation coefficients between the groups. A coefficient of 1 mean that the same people were in both groups, 0 means that there is no clear link, and -1 that no one belongs to both groups.

Table 8 further breaks down the share of beneficiaries receiving support within the programme.[21] A little under half of the supported households report to have received sensitisation on (i) community members' rights, (ii) use of protection and safety measures for mining activities, (iii) environmental protection in relation to mining activities, (iv) work and market in groups in mining, (v) child labour in mining and (vi) gender equality. Zooming in on members of mining cooperatives only (for which the programme was initially targeted) this number only increases to two-thirds of the beneficiaries.

[21] The programme also distributed trees, but this is not included in the table.

Table 8. Beneficiaries' participation in programme activities

		Treated	Share of beneficiaries that were treated	Treated that are also mining coop members	Share of mining coop members that were treated
1.	Sensitisation on community members' rights	64	43%	49	51%
2.	Sensitisation on use of protection and safety measures	65	44%	61	64%
3.	Sensitisation on environmental protection	65	44%	62	65%
4.	Sensitisation to work and market in groups in mining	70	47%	66	69%
5.	Sensitisation on child labour in mining	68	46%	64	67%
6.	Sensitisation on gender equality	71	48%	56	58%
7.	Meetings with government officials	60	40%	45	47%
8.	Training in conservation farming	47	32%	31	32%
9.	Receiving of agriculture inputs for conservation farming	42	28%	23	24%
10.	Receiving of goats and training in goats rearing	67	45%	27	28%
11.	Financial management training	10	7%	6	6%

Source: Diakonia/Caritas Impact Survey, 2024.

In Figure 4 we provide a correlation heatmap of the different treatments. Here it becomes clear that sensitisation treatments (and meetings with government officials) are highly positively correlated (green and yellow colour codes) whereas (a) training in conservation farming, (b) receiving inputs for conservation farming, (c) receiving of goats and training in goats rearing and (d) receiving financial management training is negatively correlated (dark blue colour codes) to receiving sensitisation. This could indicate that programme support could be divided into two segments: (i) sensitisation and (ii) conservation farming including goat rearing. This also aligns with programme staff members explanation that initially the work was focused on sensitisation and later the conservation farming activities were introduced to provide the communities with alternative livelihoods.

Figure 4. Heat Map (Correlation Matrix) for Treatment Type

Nr	Activities	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	s11
s1	Sensitisation on community members' rights	100										
s2	Sensitisation on use of protection and safety measures	45	100									
s3	Sensitisation on environmental protection	55	85	100								
s4	Sensitisation to work and market in groups in mining	45	75	85	100							
s5	Sensitisation on child labour in mining	55	75	75	75	100						
s6	Sensitisation on gender equality	55	55	45	45	45	100					
s7	Meetings with government officials	55	55	55	45	45	45	100				
s8	Training in conservation farming	-5	-5	-15	-5	-15	-5	5	100			
s9	Receiving of agriculture inputs for conservation farming	-35	-25	-25	-25	-25	-15	-15	15	100		
s10	Receiving of goats and training in goats rearing	-35	-55	-55	-55	-55	-35	-25	25	25	100	
s11	Financial management training	5	5	5	5	5	5	5	15	5	15	100

Source: Diakonia/Caritas Impact Survey, 2024.

Note: Each cell displays the correlation coefficients between the groups (in this case multiplied by 100). A coefficient of 100 mean that the same people were in both groups, 0 means that there is no clear link, and -100 that no one belongs to both groups.

3 Data and Methods

3.1 AVAILABILITY OF DATA

This evaluation is to a large extent based on a survey we conducted in July 2024, complemented with a qualitative scoping visit we did in February 2024. The former is described in section 3.2, the latter further below. We also used a number of other sources as complements. These are discussed below.

Two baseline studies were conducted as part of SAP I and II respectively, and end-evaluations have been conducted after each of the two phases. The reliability and credibility of these evaluations are assessed in Annex 1. The baseline study for SAP II was implemented by Diakonia and partners themselves in 2020. We identified a number of challenges in relation to the use of the baseline data: i) the complete data set (database) was not available and often the data was not disaggregated by gender nor age (or any vulnerabilities); ii) there was a lack of defined indicators at outcome and impact level as indicators have only been defined at the intermediary outcome level. Thus, only few of the questions included in the baseline could be used for comparison with the impact survey results.

The Zambia Demographic and Health Survey (ZDHS) from 2018 is one potential key data source. ZDHS measures access to health services and water & sanitation, land ownership, assets and gender-based violence (GBV). While the ZDHS data allows for breakdown at province, district, and ward level the evaluation team only managed to gain access to 2018 data (down to the ward level), and thus only pre-COVID data was available limiting the possibility to use it.

A qualitative scoping visit was, as mentioned above, conducted to Chilobe and Chilubwa communities in February 2024 in order to collect qualitative information on possible outcomes and impact through site observation, key informant interviews, impact workshops and focus group discussions. The site observations included visiting two mining sites and consulting with miners while they were working as well as local authorities. Schools supported with trees were also visited and the evaluation team saw the established orchards. Time did however not allow for home visits during the scoping visit, but this was done when collecting the quantitative data. While community leaders and cooperative members were informed of our visit miners seemed to engage in business as usual and nothing appeared staged for our visit.

While the qualitative work was an output of the assignment on its own, it also served the purpose of assessing the evaluability and possibility to conduct a quantitative

impact survey. Cooperatives and women's club members were consulted in impact workshops with focus on identifying potential impact areas that could be further tested in the impact survey. Table 9 provides an overview of the various stakeholder groups consulted during the scoping mission.

Table 9. Stakeholders consulted per type of stakeholder category and gender

Stakeholder type	Caritas/ Diakonia staff	CCPJ/Church stakeholders	Cooperative/ club members	Community stakeholders	Duty-bearers	Total
Male	1	3	12	2	4	22
Female	3	1	10			14
Total	4	4	22	2	4	36

Source: Evaluation team's compilation of qualitative stakeholder consultations in the field

3.2 SAMPLING STRATEGY FOR THE IMPACT SURVEY

We also implemented a household survey within three different mining communities: two supported (treatment) communities (Chilobe and Chilobwa) and one control community (Siankope) in Zimba District.

Table 10 summarises the estimated population size in the three communities together with the number of beneficiary households from which the sample was drawn. A total of 114 households (86 within Chilobe and 28 within Chilubwa), all members of the mining cooperatives, were main beneficiaries from the Caritas support. These member households were offered all types of sensitisations and technical support provided, including specific support to mining operations, provision of agricultural seeds and training on conservation farming, vegetable gardening, tree planting, goats delivered to women, gender roles etc.

In addition, 60 non-cooperative members households in Chilobe and 40 households in Chilubwa also benefitted from parts of the conservation farming support (goats delivered to women, vegetable gardening, tree planting).

Table 10. Population size of the communities including beneficiaries

Location	Chilobe	Chilubwa	Siankope	Total
Total population	1,563	2,852	2,022	6,437
Total number of HHs (estimate)	312	570	404	1,286
Number of Beneficiary HHs	146	68	0	214
Number of Beneficiary HHs interviewed	97	52		149

Sources: Total population - Caritas Baseline Report; Total number of HHs - Estimate based on average number of members per household; Number of Beneficiary HHs - Project records. Number of beneficiary HHs reached – own data.

The project provided a list of benefitting persons (not households) participating in the different parts of the project. The survey team then received support from Caritas and project community leaders to convert the beneficiary lists into households and interviewed all who were present. Thus, the survey team converted the benefitting persons into "household beneficiaries" using the knowledge of Caritas and CCPJ foot soldiers.

All 214 beneficiary households were sampled for the survey. As can be seen from Table 11, we were able to reach 149 of these supported (treatment) households (70% of the 214 supported households). We reached 97 of the 146 beneficiary households in Chilobe and 52 of the 68 beneficiary households in Chilubwa. The main reason for not being able to interview beneficiary households was that they were not at home or had moved away. According to CCPJ foot soldiers and local leaders some beneficiaries had relocated to other areas. Only in a very few cases, the household refused to participate in the survey.

A total of 39 out of the 149 were female headed households (26% of the treatment observations). This gives a representative gender balance among the respondents, both within the supported group and the full sample (24%), as the proportion of female headed households in Zambia is about one-quarter on average.

Table 11. Treatment versus control observations by gender

Stakeholder type	Treatment (Chilobe)	Control (Chilobe)	Treatment (Chilubwe)	Control (Chilubwa)	Control (Siankope)	Total
Male headed HHs	73	54	37	29	85	278
Female headed HHs	24	17	15	7	25	88
Total	**97**	**71**	**52**	**36**	**110**	**366**

Source: Diakonia/Caritas Impact Survey, 2024.

Table 12 documents that even among male headed households, 29% of the respondents were female. Overall, 54% and 46% of the survey respondents were male and female respectively.

Table 12. Respondents by gender

Stakeholder type	Male respondents	Female respondents	Respondents to all questions	Female respondents to GBV questions
Male headed HHs	197	81	278	81
Female headed HHs	0	88	88	88
Total	**197**	**169**	**366**	**169**

Source: Diakonia/Caritas Impact Survey, 2024.

In addition to the beneficiary households, a number of control households was added to the survey both from within (71 in Chilobe and 36 in Chilubwa) and outside the beneficiary communities (110 in Siankope). More specifically, the evaluation team collected data and information for two different types of control households: i) Non-beneficiary households from *within* the supported communities, Chilobe and Chilubwa (within control); and ii) Non-beneficiary households from the control villages, Siankope (*outside* control).

We sampled (i) by selecting the households closest to the beneficiary households. The selection of households in Siankope (ii) was done as follows. Siankope is a vast area covering about 10 villages. The survey team worked in those that were located near the mines. There was no specific sampling frame applied. People were asked to attend a meeting and those interviewed were randomly selected from those who attended. The survey team had three such meetings. The interest was overwhelming as community members were interested in receiving the same support as Chilobe and Chilubwa. This allowed for a more nuanced assessment of variance in results patterns, including for possible spill-over effects from different types of Caritas supported interventions.

3.3 DATA COLLECTION

The survey questionnaire was developed to cover the specific outcome areas of SAP II. Related outcome indicators are reflected in Table 13 which also provides an overview of how these are reflected in the questionnaire. Refer more information in Annex 2.

Table 13. Outcome areas and links to questionnaire

Outcome area	Reflected in questionnaire
Access to healthcare services	Section D: health
Access to education	Children below 18 in school (#12)
Access to water, sanitation and agriculture services	Section C & E: Water & sanitation, agriculture
Change in economic opportunities and income diversification	Section A: Income and employment
Gender equality and gender-based violence	Section A, B and G: Gender, income & employment and GBV
Environment, health and safety aspects related to mining operations	Section A: Income and employment

Besides the above outcome areas, the questionnaire included a section on assets which was of particular use for the matching of survey participants (beneficiaries and control) as well as for comparison with samples from ZDHS and the Rural Agricultural Livelihood Survey (RALS). See more under 3.4 data analysis. The assets questions constitute a preferred proxy to direct questions related to household income changes, which is often difficult to capture through these surveys.

The survey questionnaire was developed based on questions mainly from ZDHS 2018 and to some extent also from RALS 2019. Only very few questions from the baseline were included (on gender attitudes), refer Annex 2 for an overview. Further, a series of recall questions have been included to identify changes and supplement the existing data sources.[22] In order to mitigate the challenge of beneficiaries not being able to remember the situation before SAP II implementation, COVID-19 was used as benchmarking. Enumerators asked respondents to compare with the situation before COVID-19 with the current situation. Refer Annex 2 for questions that were repeated from ZDHS, RALS and from the baseline respectively as well as more explanation of training of enumerators.

Within the selected households (beneficiary and control households), the household head was first approached by the survey team. If the household head was not available, the spouse/partner was approached. One part of the questionnaire was explicitly dedicated to female household members. If nobody from a beneficiary household was at home, the enumerator tried to come back later to conduct the survey. If nobody within a selected control household was at home, the enumerator selected the nearest neighbour.

[22] While use of recall is less ideal (due to the obvious problem of accuracy), care has been taken to ensure it is as sound as possible, by drawing on research into what types of issues are most relevant for more detailed recall, and where more overall questions regarding trends have been more appropriate.

Care was taken to emphasize the independence of the evaluation. Although it was not possible to carry out the survey without some logistic involvement of programme staff, in general the enumerators were able to carry out the interviews in an unsupervised manner. It was not possible to conduct physical checks of e.g. instance crop production and livestock as part of the survey.

3.4 DATA ANALYSIS

A propensity score matching (PSM) approach[23] was to the extent possible combined with a double difference (DD) approach. PSM was used for constructing control groups that shared common attributes with the supported group. This involved estimating a statistical model based on the probability of participating in the programme, using a set of observable characteristics (explanatory variables for which summary statics is provided below) unaffected by programme interventions. The coefficients for these variables then generated a propensity score (probability) for programme participation. Consequently, programme participants were matched with non-participants possessing similar propensity scores, and a control group was formed by including the best matches to each participant from the supported group. The reported PSM estimates are based on Kernel matching estimates. However, as robustness we also used nearest neighbour matching with four matches. However, since this never yielded any substantially different results, we do not report it.

The PSM approach is particularly pertinent when addressing selection bias, although it comes with the challenge of a relatively substantial data requirement. The information on general household characteristics (size of land, education (level/years), household size, number of males/females) in the data set was used fully in the matching approach pursued. While PSM was applied to control for selection bias based on observables, the DD method enabled the control of selection bias along unobservable dimensions.

Consequently, DD assessed the impact of support by examining differences in selected outcomes between treatment (D=1) and non-treated households (D=0) before (T=0) and after (T=1) treatment. The DD estimator aimed at eliminating biases arising from differences in initial conditions (observable heterogeneity) and variations between units (treated and non-treated). The first difference, between treated and control households, removed general changes common to all households, while the second difference, representing the change over time, mitigated the influence of time-invariant unobserved individual heterogeneity.[24] Figure 5 illustrates the essence of the DD estimator.

---

[23] Method used to select members of the control group that share characteristics with members of the participants' group, through estimation of a statistical model based on matching characteristics (household characteristics).

[24] The robustness of the results from the econometric data analyses has been tested at the 1% (most significant), 5% and 10% (least significant) statistical significance level.

Figure 5. Illustration of DD estimator

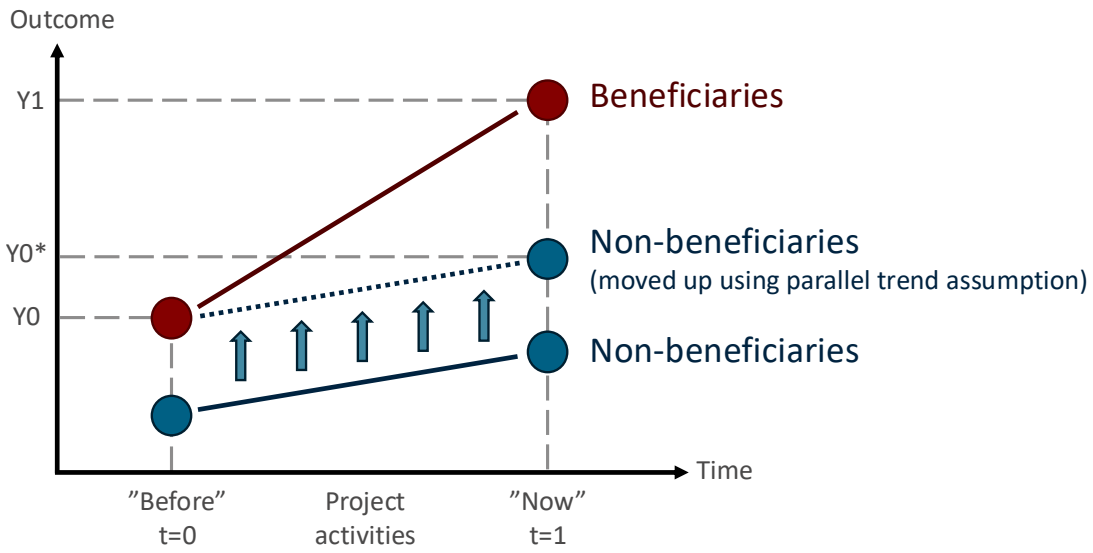


Figure note: Pre-intervention: t=0. Post-intervention: t=1. Assumption in illustration: no selection bias at t=0. If selection bias exist, then the outcome difference (bias) at t=0 should be deducted the impact estimate at t=1 (assuming the parallel trend assumption is fulfilled).

As such, the DD measures the difference in the observed change between supported households and control households, based on baseline (recall data in this case) data and ex-post data. Thus, the DD eliminates external determinants of the outcome, in cases where these are the same for the two groups during the intervention period. The DD approach assumes common time effects across groups and no composition changes within each group. Unfortunately, data was not available to test whether the assumptions are fulfilled.

Thus, the thrust of the data analysis has been to compare parameter values in the questionnaire between beneficiaries and non-beneficiaries before and after programme intervention, controlling for selected socio-economic variables available in the survey questionnaire.

Through the quantitative analysis, which leveraged propensity score matching techniques, we have primarily examined changes in economic opportunities for the defined target groups. In addition to this, we provide a comprehensive set of summary statistics that cover other important dimensions, such as access to healthcare services and sanitation facilities. These aspects are crucial for understanding the broader social and economic effects of the interventions in these regions. A summary of matching

variables is provided in Table 14. Differences across villages exist especially regarding assets (livestock, land and water access).

Table 14. Summary of matching variables

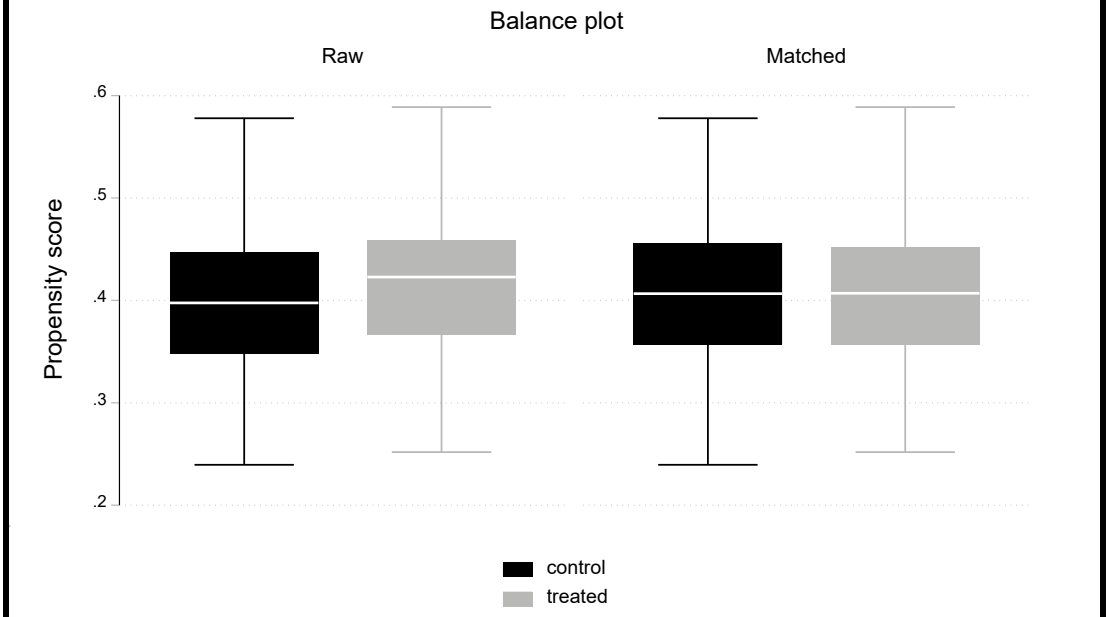
	All		Chilobe		Chilubwa		Siankope	
	Mean	Std	Mean	Std	Mean	Std	Mean	Std
Gender of HH head (male = 1)	0.76	0.43	0.76	0.43	0.75	0.44	0.77	0.42
Age of HH head (years)	40.9	15.1	38.5	14.5	40.7	12.1	44.7	17.3
Size of household (number)	4.7	2.0	4.4	2.0	5.1	1.8	5.0	2.1
Main occupation agriculture (yes = 1)	0.66	0.47	0.72	0.45	0.63	0.49	0.59	0.49
Married (yes = 1)	0.87	0.34	0.83	0.38	0.94	0.23	0.88	0.32
Livestock (cattle) – 5 years ago	3.2	7.3	2.4	5.9	4.3	7.9	3.5	8.5
Livestock (horse, donkey, mule, goat, sheep, pig) – 5 years ago	7.0	17.3	4.8	9.8	8.8	11.5	8.8	27.2
Livestock (other) – 5 years ago	9.6	15.0	7.6	11.9	9.8	15.5	12.4	18.1
Land ownership (ha) – 5 years ago	4.1	5.4	4.8	6.9	4.4	4.6	3.1	2.9
Water access (time) – 5 years ago	75.8	58.2	96.8	56.6	59.0	48.2	57.3	57.7
Number of observations	366		168		88		110	

Source: Diakonia/Caritas Impact Survey, 2024.

In Panel A in Figure 6, we provide an illustration of a balancing test conducted. Here we relied data on household characteristics such as the sex, age, household size, the main occupation (agriculture), and the marital status of the household head. In earlier estimates we also matched on education level of the household head and the dependency ratio (which represents the proportion of household members in non-working age groups), but this did not change the overall results presented. In Panel B in Figure 6, we present a similar balancing test, but this time using an expanded set of control variables. In addition to the controls mentioned above, we also incorporate indicators for asset ownership (livestock and land), along with the distance to water sources, all measured five years prior.

Figure 6. Balancing test based on matching approach

Panel A: Matching based on simple household characteristics only



Panel B: Matching on an expanded set on indicators

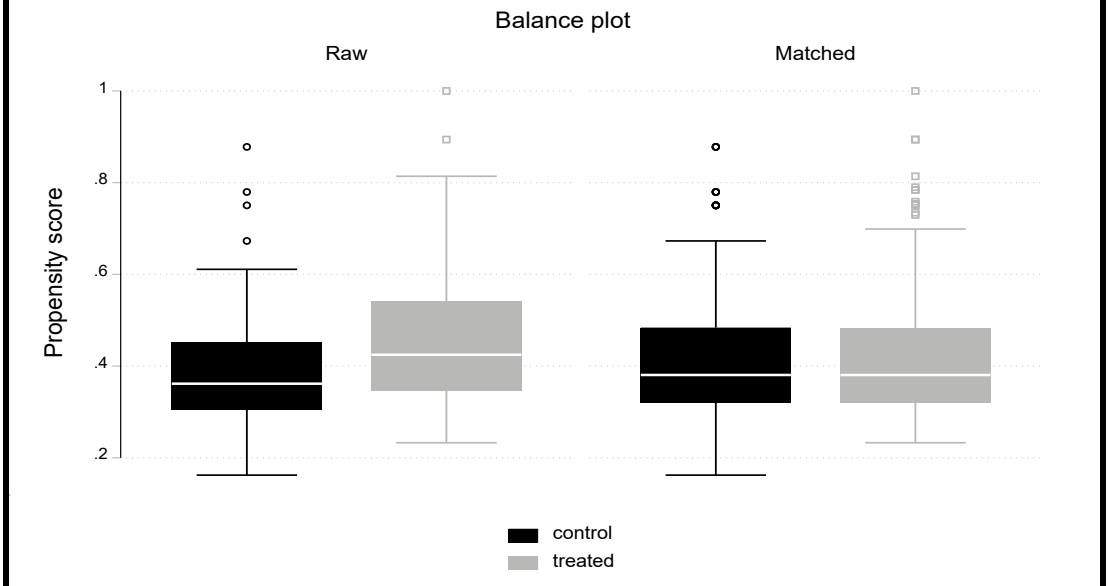


Figure note: Balancing tests were also done only for Chilobe and Chilubwa, and this restricted sample was more balanced (only one outlier observation).
Source: Diakonia/Caritas Impact Survey, 2024.

The results from these balancing tests demonstrate that using unbalanced data without applying a common support restriction in the matching estimations would likely result in biased estimates. This is due to the presence of outliers and the fact that the probabilities of participation, based on observable characteristics, are more concentrated around the selected observables compared to the control group. The matched and balanced samples, however, are found to be suitable for analysis, especially for analysis carried out within treatment villages Chilobe and Chilubwa, as all observations outside the common support is found in Siankope. Consequently, we have proceeded by reporting results using both the simple and expanded control sets as well as with and without Siankope whenever these yielded different results.

The results from the survey have been triangulated and complemented with observations from the qualitative data collection as well as with information from programme documents including progress reporting, other programme documentation and the final evaluation of SAP II. Analysed data is presented in the form of text, tables, and graphs in the report from which key results are presented.

The approach taken in this analysis has certain limitations that warrant careful consideration. *First,* Siankope differs from the treatment villages along some key observable dimensions. For example, households in Siankope are less likely to report having agriculture as their main occupation and they have on average less land available for productive purposes. Also, Siankope was not selected for support by Caritas due to its limited accessibility by car and instead the community was only accessible by foot limiting e.g. its access to markets. To address this concern, we conduct all quantitative estimates both including and excluding Siankope to test the robustness of the findings.

Second, the difference-in-differences (DiD) methodology relies on recall data, which may compromise the accuracy of the estimates due to potential recall bias. Consequently, caution is advised when interpreting and applying the magnitude of the estimated impacts. However, if recall or memory biases are consistent on average across households, the resulting bias in the DiD estimates would be limited.

Finally, the data used in this study do not allow for validation of some critical assumptions underlying the DiD estimator. For instance, it is not possible to confirm whether the parallel trends assumption - a key requirement for the validity of the DD approach - is satisfied. This limitation further underscores the need for cautious interpretation of the results. Aware of these issues, we aim to provide a balanced perspective on the findings and their implications.

4 Results Chain

4.1 ASSESSING THE RESULTS CHAIN

The underlying SAP programme results chain was based on the assumption that, in order to change structures that create and perpetuate poverty, inequality, violence and injustice, *rights-holders* - such as farmers and artisanal miners - need to be empowered to challenge *duty-bearers* - such as mine traders and government officials - thereby supporting the realisation of the vision of all people living in dignified circumstances.

The overall Diakonia SAP results chain was based on the underlying assumption that knowledge of rights, combined with increased capacity to act, would lead to empowerment, which would then allow rights holders to demand accountability from private and public duty-bearers on equitable access to and distribution of national resources. This was done in line with Diakonia's overall strategy focusing on 1) awareness and knowledge building and 2) organisation and mobilisation of rights holders and CSOs for collective action.

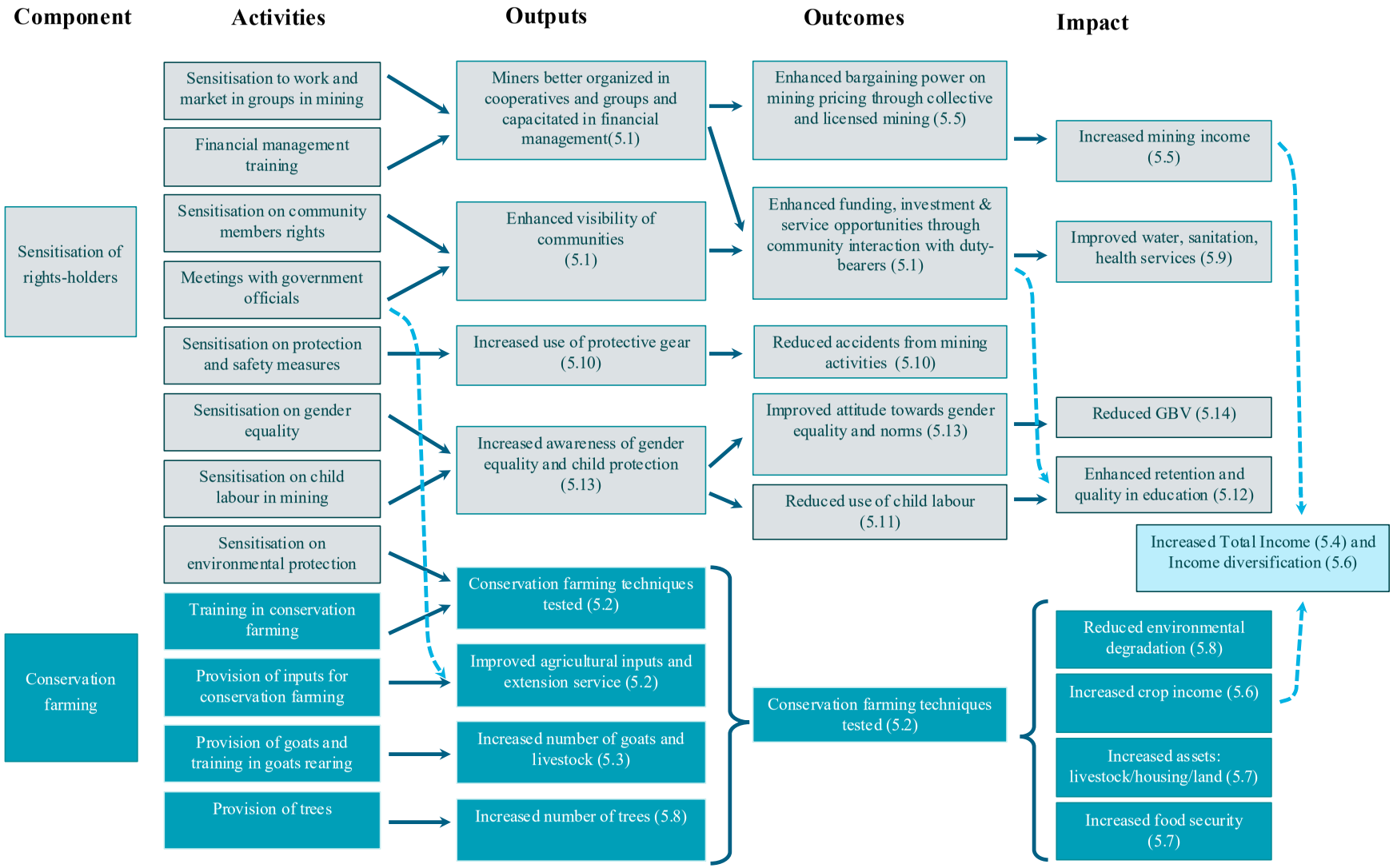
The programme applies a rights-based approach and explicitly defines rights-holders and duty-bearers in intermediary outcomes and outcomes. Diakonia listed "improved quality in life" as the impact to be achieved in the results framework. In order to make this more concrete and measurable in a survey the evaluation team broke it down to improved income, enhanced access to services (education, health, water and sanitation) based on interviews with staff members on expected impact.

Figure 7 reconstructs the main causal chains of the specific Caritas intervention, including the two components related to sensitisation (grey) and conservation farming (turquoise). The boxes on the far left correspond to the project's activities (as described in section 2.3 above). The other boxes represent potential outputs, outcomes and impacts; the number in parenthesis (if any) refer to the sections in which these effects are analysed. The arrows represent the *main* causal links.

4.2 LINKS TO SIDA'S POVERTY DIMENSIONS

As reflected in Figure 7 the intervention strives for impact within Sida's resource, opportunities/choice and human security dimensions in order for beneficiaries to achieve improved quality of life in the communities. Improved quality of life is understood as increased and diversified income, increased access to services and input, prevention of gender-based violence (GBV) and child labour (violence against children). Reduced child labour is an impact in itself but it is also assumed to have an impact on children's education.

Figure 7. Results chain of the Caritas intervention



Source: Evaluation team's reconstruction of Caritas' intervention.

5 Findings on Impact

5.1 FORMATION OF COOPERATIVES AND WOMEN'S CLUBS

A key driver of the programme has been to engage rights-holders in various types of groups in order to enhance organisation and facilitate a joint collaboration on holding duty-bearers accountable). As reflected in Figure 7 the intention has been to ensure that mining rights are acquired in order to support artisanal miners enhance their income and also get better access to services through visibility towards duty-bearers. Here we first discuss the mining cooperatives and subsequent the women's clubs.

Zambian policies have emphasised the organisation of artisanal miners in cooperatives. The assumption is that this will increase the bargaining power of the miners and give them better access to services. SAP II mirrored this focus by supporting communities in establishing cooperatives and organising women in clubs.

Membership in any community organisation/club. Table 15 illustrates that almost all respondents in the supported group now are members of a community organisation (i.e. either a mining cooperative or a women's club) which is not the case for the control group.

While control households were more organised five years ago, supported households are now by far the most organised. Also, while no women were in groups five years ago, now 92% are member of groups.

Table 15. Membership in community organisations/clubs

	Control	Treatment
Any HH member belonging to a community organisation/club %	12%	95%
Any HH member belonging to a community organisation/club 5 years ago %	10%	1%

Source: Diakonia/Caritas Impact Survey, 2024.

However, interviews with club and cooperative members suggested that many of these groups do not function as intended in practice, and the women's clubs in particular have very few joint activities.

Cooperatives. In Table 16 we specifically focus on memberships in *cooperatives*. The findings reveal that supported households are 47.4% more likely to be members of a cooperative compared to non-treatment households. This percentage increases to 55.6% when excluding Siankope (not reported).

This positive effect is consistent even when isolating female-headed households, as shown in column 2. Furthermore, no significant differences in cooperative membership are observed between male and female-headed households within the supported group, indicating that the intervention's effect on cooperative participation is gender-neutral.

Table 16. Membership in cooperatives

Column	(1)	(2)
Sample	Full	Women only
	0.474***	0.437***
	(0.0465)	(0.0667)

Model: PSM (but for "Women only" no matching on gender), no DiD.
Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

These results highlight the programme intervention's impact in promoting collective action through cooperative membership, particularly among supported households.

Women's Clubs exhibited some problems. Qualitative engagements in the communities indicated that seven women's clubs, with around 20 members in each, had been established with support from the programme. Two of the clubs have officially been registered. The evaluation team, however, found little indication that these clubs were actively working and benefitting the women. At least, women were unable to share what activities they had done in the club. Some of the clubs, six according to progress reporting, were doing savings, but besides that only very few activities seemed to have been going on.

In Chilobe, one Women Club attempted, but ultimately failed, to form a cattle cooperative. The club applied to the Community Development Fund and received a grant of ZMW 12,000 (around SEK 4,600) to initiate the cattle cooperative, but this amount was not sufficient for success.

However, it was an important achievement for the club to become aware of the opportunity to apply for the Community Development Fund and even be successful in its application. While the cattle production did not perform well the club accessed funding from the government. As reflected above, literature has shown that organisation and formalisation do not always lead to access of investments/finance, but this example proves that it sometimes does, thus confirming the expected results chain.[25]

The project also distributed goats and other livestock to these clubs. This is discussed in section 5.3.

[25] Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.

5.2 EFFECTS ON FARMING

As reflected in Figure 7, and discussed above, Caritas introduced a component of conservation farming, due to the need for farmers to diversify their incomes.

Conservation farming, as recommended to Zambian small-scale farmers, typically includes a combination of the following components: dry-season land preparation using minimum tillage systems, retention of crop residues in the field, application of mineral fertilizers and other inputs, early and continuous weeding, leguminous crop rotations, and agro-forestry. Hand hoes are used to make permanent planting basins with specified dimensions.[26]

Conservation Farming can raise yields in regions with dryer climate, especially during drought years, whereas in wetter climate the effect can even be negative. However, Zimba is situated in the southern drier part of Zambia, and 2019 was drought year, so conservation farming could potentially have a positive impact here.[27]

It is noted that the component of conservation farming was a small component added later to the Caritas intervention and that while training in conservation farming was introduced the training was less comprehensive compared to full blown conservation farming programmes implemented in the same area.[28]

Nevertheless, low adoption rate of new agricultural technologies is a general problem often overlooked in conservation farming programme, including the Caritas intervention. The literature indicates that there are actually many good reasons to non-adoption, and the strength of these hinges a lot on details e.g. local climate. Reasons include more weeding required, unless farmers have fertilizers which are often difficult to get access to in rural areas and several of these techniques are more labour intensive.[29]

Extension services have improved, but to the same extent for supported and control groups. Table 17 confirms an increase in extension support for both control (including Siankope) and supported group (all beneficiaries) with no clear difference

[26] Umar, Bridget Bwalya (2017), Conservation Agriculture Promotion and Uptake in Mufulira, Zambia-A Political Agronomy Approach.
[27] Umar, Bridget Bwalya (2017), Conservation Agriculture Promotion and Uptake in Mufulira, Zambia-A Political Agronomy Approach.
[28] For example, the SNV implemented Increasing Resilience in Energy and Agriculture Systems and Entrepreneurship (INCREASE) and the Women Economic Empowerment Project also funded by Sida in Southern Province. Sida/NCG (2023), Mid-Term Evaluation of SNV's Increasing Resilience in Energy and Agriculture Systems and Entrepreneurship and Sida/NCG (2023), Mid-Term Evaluation of the Women Economic Empowerment Project in Zambia.
[29] Umar, Bridget Bwalya (2017), Conservation Agriculture Promotion and Uptake in Mufulira, Zambia-A Political Agronomy Approach.

since the effect has been on community level. The same pattern exists for agricultural inputs (Table 18) and there were no major differences between female headed and male headed households (not reported).

Table 17. Agriculture extension provided, including Siankope

	Control	Treatment
Any support from agriculture extension in last 12 months	98.0	99.1
Any support from agriculture extension 5 years ago	23.6	23.6

Source: Diakonia/Caritas Impact Survey, 2024.

Table 18. Agriculture input received, including Siankope

	Control	Treatment
Any inputs received from agriculture extension in last 12 months	34.5	25.5
Any inputs received from agriculture extension 5 years ago	21.6	20.8

Source: Diakonia/Caritas Impact Survey, 2024.

Qualitative evidence provides some potential explanations for the common positive trend. According to stakeholder consultations, after the drought in 2019 a big meeting involving the now dead Chief and Departments of Forestry and Agriculture was organised with Chilobe community. This led the Department of Agriculture to provide seeds for the community. This may explain the increased support from agricultural extension services where both groups indicate to have received support during the last 12 months. Inputs have also increased a bit, but more so for the control group where an agriculture cooperative exists.

Nevertheless, it is likely that the engagement with duty-bearers have provided visibility to the otherwise quite remote communities and that inputs provided were shared with the communities as such and not only the cooperatives. Duty-bearers consulted during the qualitative field visit confirmed that prior to the Caritas intervention they had little knowledge of Chilobe and Chilubwa and that the engagement had made the communities more visible to them (the project facilitated a visit to the communities where the duty-bearers had not been prior to the intervention).

Limited adoption of the specific techniques is often a problem in conservation farming, as noted above. Our data shows that of the beneficiaries that received training and inputs related to conservation farming, 75% started using at least one of the conservation farming practices. However, of the control households in the supported villages that did *not* receive training and inputs, almost the same share, 74%, adopted at least one of the conservation farming practices. It is therefore difficult to conclude that training and inputs have had a significant impact on uptake of conservation practices.

In Table 19 we look at whether beneficiary households, independent of whether they received training and inputs or not, adopted specific conservation farming practices. Here we see that 77% of beneficiary households apply practices for conservation farming as compared to 72% of non-beneficiaries in supported villages and 91% in Siankope. Looking at the detailed conservation practices, we do however see that adopters (households adopting at least one conservation practice) from beneficiary households are more likely to use potholing, crop rotation and planting with spacing as part of their agricultural practices as compared to non-supported households.

Table 19. Crop planting practices for conservation farming adopters and non-adopters

	Beneficiary HH	Non-beneficiary HH in treatment villages	Non-beneficiary HH in Siankope
Total number of households	149 (100%)	107 (100%)	110 (100%)
Adopted at least one practice	114 (77%)	77 (72%)	100 (91%)
Adopted potholing	9 (8%)	2 (3%)	0 (0%)
Adopted crop rotation	17 (15%)	9 (12%)	8 (8%)
Adopted planting in lines	104 (91%)	69 (90%)	90 (90%)
Adopted planting with spacing	59 (52%)	33 (43%)	38 (38%)
Adopted early planting	18 (16%)	5 (6%)	25 (25%)

Note: Number of households. Percent of total in parenthesis.
Source: Diakonia/Caritas Impact Survey, 2024.

The effect on crop incomes is ambiguous. In Table 20, we look at the effect on the programme on crop incomes. First, we include the effect on crop income from being labelled as a beneficiary in general (this result also occur in Table 29). Here we see a clear positive effect of the programme. Hence, this would indicate that the progamme at large could have had some positive effect on crop incomes.

However, this effect disappears when we redefine the treatment category more narrowly to only include those that have received training and/or inputs for conservation farming. We do this latter analysis by using two different control groups: (i) other supported households who did not receive the training and (ii) our "pure" control group, meaning beneficiary households who have not received any support, but report having crop income. The lack of positive effect is the same in both cases. In fact, among the adopters of conservation farming, 40% reported an increase in crop-incomes. However, among the non-adopters this figure was higher, 46%.

Hence, this indicate that there were no positive effects on crop incomes from the promotion of conservation farming. Part of this result may be due to low and inconsistent uptake of the different components of conservation farming, but there are possibly other explanations as well.

Table 20. Changes in crop income

Definition of treatment	Definition of control	Treated	Controls	Difference (DiD)	Significance
All beneficiaries	All non-beneficiaries	1.087	0.620	0.468	***
Received training and/or inputs	Within treatment group	0.863	1.134	-0.271	
Received training and/or inputs	With "pure" control only	0.806	0.988	-0.182	

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1. (Decrease=0, same=1, increase=2).
Source: Diakonia/Caritas Impact Survey, 2024.

However, there are some indications of positive effects on food availability. The data on the perceived reason for changed food availability partly contradicts the negative results above. The respondents were asked for why they thought their food availability has changed as it did. In Table 21 we display these answers, cross-tabulated with the reported changes in food availability. It includes all beneficiaries and the entire control group including Siankope.

In the table a relatively larger share of the supported group indicated better farming methods as a reason for better food availability.

Moreover, the main reason given for a decline in food availability in both the control and treatment group was poor rainfall conditions. This is expected given the dry climate, and in particular the drought in 2019. However, the share was much lower among the supported group, in line with the relative advantage of conservation farming in dry conditions, and drought.

Table 21. Reasons for change in food availability

	Less food now		No change		More food now	
	Control	Treatment	Control	Treatment	Control	Treatment
Better farming methods			0	3	15	17
Diversified farming + larger area			1	0	4	2
Diversified economic activities					6	4
Increased mining income			1	6	27	28
Lack of inputs	4	0	2	0		
Less mining income	12	1	1	1		
Food expensive	9	2				
Poor market availability	7	11				
Poor rainfall	84	48	3	0		
Other	3	0	11	7	3	0
Total	**119**	**62**	**19**	**17**	**55**	**51**

Note: Number of responses (only one response per household).
Source: Diakonia/Caritas Impact Survey, 2024.

All in all, the evidence on the effects of the conservation farming is contradictory and weak. The basic requirements for good effects are there (e.g. a dry climate) and the communities at large has experienced improvements in extension services and farming inputs. However, the adoption of specific components has been uneven and low, and those that received training and input has, with the exceptions of some specific components, not been more prone to adopt conservation farming. Whereas beneficiary households, as a group, experienced more improvements in crop incomes, this cannot be clearly linked to the training or adoption of conservation farming. It might have played some role in improved food security, though.

Hence, on balance, the evidence for any positive effects has to be considered weak, and this can, at least partly, be explained by inconsistent and low uptake. This, in turn, may reflect that the conservation farming was added late and was never a major focus of the programme.

5.3 EFFECTS ON GOATS AND LIVESTOCK

The effects on goats have been weak. The project provided local goats to the community members, as mentioned above. While the intention was to target women's clubs with goats this had not been realised in practice and the strategy for allocation of goats was unclear. According to both community members and government officials, goats had in general not done well. This is in line with evidence from Zambia's Ministry of Fisheries and Livestock which shows a decline in goat production due to climate shocks, disease outbreaks, and market disruptions. These factors have affected

herd sizes, productivity, and farmer participation in key regions such as Southern Province.[30]

Actually, there have been a decrease of goats compared to five years ago for both supported (all beneficiaries) and control group (both within Chilobe and Chilubwa and Siankope). The control group has experienced a decrease of 27%, while the supported group has only reduced the number of goats with 5%.

This is also confirmed in Table 22, although the effect is only significant when including Siankope in the control group.

Table 22. Changes in the number of goats

Sample	Treated	Controls	Difference (DiD)	Significance
Including Siankope	-0.333	-2.056	1.722	*
Excluding Siankope	-0.318	1.859	1.542	

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

Looking at men and women separately, we see a big difference in the descriptive statistics (Table 23). Supported males experienced a much smaller loss of goats over five years compared to the control group. On the other hand, supported women had experienced a bigger loss than in the control group where the ownership had remained rather stable.

Table 23. Ownership of goats in 2024 compared to 5 years ago by gender

All household types	Goats owned by males		Goats owned by females	
	Control	Treatment	Control	Treatment
Number of goats owned	3.04	2.57	1.76	2.74
Number of goats owned 5 years ago	4.83	2.66	1.74	2.91
% change in numbers over 5 years	-37%	-3%	1%	-6%

Source: Diakonia/Caritas Impact Survey, 2024.

Table 24 redefine the support category to one where treatment is defined as having received a goat or training related to goat rearing and where we consider two control groups: (i) other supported households not receiving a goat or training and (ii) our "pure" control defined as non-beneficiary households in supported villages. These estimations are done excluding Siankope.

[30] Ministry of Fisheries and Livestock (2023), Mid-Year Report.

Table 24. Changes in livestock (number) for beneficiaries who received goats

Sample	Treated	Controls	Difference (DiD)	Significance
All non-beneficiaries excl. Siankope	-6.597	-7.384	0.787	
With "pure" control only	-7.000	-4.293	-2.707	

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

Livestock in general. We also estimated the effect on larger livestock animals as well as smaller livestock animals (not reported), but this did not change the results reported. Based on the (insignificant) results we confirm that even when confining the supported group to the households receiving a goat, we do not find any visible impact on the changes in livestock. Results were also checked regarding overall income changes and other wealth indicators and here we also find no significant impact of receiving a goat.

5.4 EFFECTS ON INCOMES

The survey data shows a positive significant effect on *changes in income*. This applies equally to both male and female-headed households. In Table 25, we present results on changes in household income. The findings indicate that supported households are significantly more likely to report an increase, or less likely to report a decrease, in their overall income over the past five years. This trend is evident when we apply both the simple and expanded control sets in the matching analysis (as explained above).

Table 25. Changes in income

Sample	Treated	Controls	Difference (DiD)	Significance
Including Siankope	1.182	0.776	0.406	***
Excluding Siankope	1.179	0.841	0.338	**

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1. (decrease=0, same=1, increase=2).
Source: Diakonia/Caritas Impact Survey, 2024.

A closer look at the survey data shows that the positive treatment effect found on household income impact is largely driven by *a lower proportion of households within the supported group reporting a decline in income* over the last five years, compared to the control group. This suggests that the programme interventions have had a *stabilising effect* on household incomes, reducing the likelihood of income deterioration, rather than catalysing large income increases. This underscores the importance of the intervention's role in also *improving economic resilience* within the treated households.

It is important to note however, that interpreting the estimates in Table 25 should be done with care when the outcome variable is categorical.[31] Translating this to odds, the support group has a 134% higher likelihood[32] of experiencing an income increase compared to experiencing no change in income, relative to the control group.

The effect was similar for male and female headed households. Table 26 shows that the estimated positive impact for female-headed households is approximately the same as that for the entire sample. This suggests that the intervention has a similarly well-determined effect, regardless of household head gender. Furthermore, when comparing impact estimates between male and female-headed households within the supported group, no significant differences in treatment outcomes are observed.

Table 26. Changes in income, female-headed HHs and only treatment

Sample	Difference (DiD)	Significance
Female-headed HHs	0.383	**
Excluding Siankope	0.354	*

Model: PSM (but no matching on gender) and DiD.

*** p<0.01, ** p<0.05, * p<0.1. Simple control set applied. Results do not change when using expanded control set described in the matching procedure.

Source: Diakonia/Caritas Impact Survey, 2024.

5.5 MINING AS A DRIVER OF IMPROVED INCOMES

Improved mining income is a driver of these positive results (in contrast to the weaker results for conservation farming and livestock, as discussed above). In Table 27, we refine the analysis of changes in total income that we did in table 25 above. We exclude Siankope, and redefine treatment as households that are members of mining cooperatives. In row 1 we compare income changes of households that are members of mining cooperatives to non-members, independent of whether they received other form of support. Here we find that households that are members of mining cooperatives had a higher probability of experiencing a relative income increase.

In row 2, we compare cooperative members to non-cooperative members, but only those non-cooperative members that received other types of support from the

[31] Translating the point estimate of into a multinomial logistic regression framework where the coefficients represent the relative log-odds of being in a specific outcome category compared to the reference category. Choosing “same” as the reference category the log-odds of observing an increase in income over the past five years (relative to the reference category) rise in the support group compared to those in the control group.

[32] 100 x (exp (0.085)-1)

programme. Here we observe no significant differences in the probability of reporting improved incomes over the five-year period. In rows 3 and 4, we redefine treatment as being mining cooperative members receiving sensitisation treatment. From these results, we cannot say that mining cooperative membership with and without sensitisation experienced significantly different probabilities in experiencing positive income changes over the five-year period considered.

Table 27. Changes in total income – different treatment definitions (excl. Siankope)

Treatment	Control	Treated	Controls	Difference (DiD)	Significance
Cooperative member	1. All other HHs	1.207	0.958	0.249	*
	2. Non-coop treatment HHs	1.200	1.130	0.070	
Sensitised cooperative members	3. All other HHs	1.364	0.910	0.453	***
	4. Non-coop treatment HHs	1.389	0.973	0.416	

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1. Change in (mining) income is coded as: decrease=0, same=1, increase=2.
Source: Diakonia/Caritas Impact Survey, 2024.

When we only focus on changes in mining income (in Table 28 rows 1, 2, 3 and 4) we see an indication that sensitisation support had a positive impact on the probability of reporting positive mining income changes. In fact, when restricting the sample to supported households who are members of a mining cooperative (88 observations), and only distinguishing households on whether they received some kind of sensitisation support (75 observations) or not (13 observations), we find a significant impact of sensitisation on the probability of reporting positive mining income changes.

In fact, 60 (out of 75) receiving sensitisation support reported to have experienced a positive mining income change as compared to only 4 (out of 13) in mining cooperative households not receiving sensitisation treatment.

Table 28. Changes in mining incomes – different treatment definitions (excl. Siankope)

Treatment	Control	Treated	Controls	Difference (DiD)	Significance
Cooperative member	1. All other HHs	1.471	1.164	0.306	*
	2. Non-coop treatment HHs	1.464	1.155	0.308	
Sensitised cooperative members	3. All other HHs	1.622	1.176	0.446	***
	4. Non-coop treatment HHs	1.618	0.970	0.648	*

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1. Change in (mining) income is coded as: decrease=0, same=1, increase==2.
Source: Diakonia/Caritas Impact Survey, 2024.

This finding is supported by information provided during the qualitative scoping mission, where interviews with supported households indicated that positive income effects were mainly related to engagement in mining activities, due to large price increases on extracted minerals from mining during the period, mainly attributed to enhanced negotiation capacities within the established mining cooperatives. The programme worked in several ways that could improve mining incomes:

Creating awareness among rights-holders (miners) of the prices of minerals and the regulations required to sell and buy minerals. This was done through the cooperatives and in community gatherings.

Sensitisation activities towards duty-bearers, such as government officials and Chiefs. The CCPJ arranged a number of meetings with one of the chiefs who finally agreed to develop a circular with prices on minerals. This proved essential for community members to demand higher prices. Private sector actors have to comply with these rules in order to continue operating.

According to stakeholders, prices on minerals had more than tripled since 2019 (from around ZMW 35 to ZMW 120-140 per kilo). This is in line with findings from the Evaluation of SAP II which found that the prices on tin increased from ZMW 35 to ZMW 135 per kg.[33] As the main reason for obtaining of better prices, stakeholders referred to Caritas' sensitisation of the mining cooperatives on how to better bargain with the buyers of the minerals as well as the Chief's Circular referred to above.

While local artisanal miners have been successful in creating framework conditions for higher prices by collaborating in cooperatives, a lack of consistent demand for minerals sometimes force them to sell beyond established prices in practice.

[33] Sida Decentralised Evaluation (2022), Strengthened Accountability Programme II, 2022.

Community members were fully aware of the Chief circular and complied with these selling prices in practice to the extent possible, but it was also clear that, particularly in Chilobe, cooperative members would sometimes go below the agreed price to ensure an income. A key challenge is the limited number of buyers in Chilobe, which put pressure on the communities to sell at reduced prices. According to women in Chilobe, they were sometimes not able to keep the agreed price as they were desperate to sell when buyers finally came to the community.

Cooperative members in Chilubwa, on the other hand, shared that there were several buyers in their area (up to five), which made it easier for them to fix the price. Although the cooperative in Chilobe was considered the stronger of the two, the better market access in Chilubwa allowed everyone there to sell at fixed prices.

A key assumption of the result chain was that duty-bearers, such as community leaders, government officials and chiefs, are willing to engage and provide empowerment opportunities for rights-holders. This is somewhat confirmed by the chief's development of the circular, as discussed above. However, stakeholder engagements indicated that government staff are often transferred to other places and then awareness raising has had to be repeated again. In addition, the chief, who had engaged the most with CCPJs, unfortunately passed away and then the engagements needed to be started over again.

However, an attempt of the Chilobe cooperative to get a mining licence failed. While a license application was submitted, the attempt was not successful. The cooperative was registered in 2019. In 2020 the Chief gave his consent to the cooperative to apply for a mining license. If the cooperative acquired a mining license, it was estimated that the community would be able to add additional value to the minerals and sell for higher prices. Caritas provided funding for coordinating the license application process and Chilobe was the first cooperative to apply for a mining license in the Southern Province.

However, the mining area was also claimed by other stakeholders, and the Chief did not consent to the cooperative license,[34] thus the Ministry of Mining requested the community to select another area. The license was instead given to the mining company Ostrich mining, and the company put up a fence so the community members could not get access to the area as they were used to.

While community members did select another area, the next challenge was to pay a new application fee of ZMW 900 and to physically submit the application in Lusaka.

[34] Sida/FCG (2022), Evaluation of the Strengthened Accountability Programme II, April 2022.

This became too difficult barriers for the mining cooperative in Chilobe which ended up never submitting a new application and therefore still does not hold an official mining certificate.

It is less evident to what extent cooperative members were involved in advocacy activities or whether these were primarily conducted by CCPJs. The lack of initiative in applying for a new mining license could indicate that cooperative members did not feel fully comfortable continuing advocacy activities after the project had ended. Thus, it is likely they have not been fully empowered to act on their own initiative.

5.6 EFFECTS ON INCOME DIVERSIFICATION

We find no clear effect on diversification of incomes. The average household in both supported and control areas mainly get income from two different sectors and mining is in most cases one of them. According to stakeholder consultations, greater engagement in mining is a consequence of the drought in 2019 that forced communities to engage more in mining since few other livelihood opportunities existed at that time. Table 29 highlights variations in the likelihood of households having multiple income sources.

Table 29. Income diversification, average number of income sources

Sample	(1) Full	(2) Female headed HHs only
Average no. of income sources (treated)	1.926	1.914
Average no. of income sources (control)	1.866	1.911
PSM estimates	0.0603	0.0033
	(0.0760)	(0.0889)

Model: PSM. No matching on gender for female headed households. No DiD.
Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

Results did not change when excluding Siankope from the analysis. Likewise, use of a multinomial logit estimator did not change the overall results. The respondents did not report number of income sources five years ago, so we cannot do DiD estimates, but only the PSM.

Qualitative information obtained during the scoping mission indicated enhanced income diversification within the supported communities since 2019. This seemed mainly to be the result of two factors: 1) more households from the supported communities are now engaged in mining; and 2) households that were already engaged in mining before 2019 spend less time in mining now, due to much higher prices on

minerals**.** Supported household members explained that since working in the mines is very hard, they preferred only to work their when they needed money for food. This indicate that supported households are using mining mainly as a *coping mechanism*.

With supported households spending less time in mining, more time is devoted for farming activities, where Caritas also facilitated new knowledge and seeds as well as training on conservation farming (potholing, crop rotation, soil conservation, tree planting etc.). The survey results were however ambiguous about income increases from farming activities as discussed above.

To summarise section 5.4 to 5.6, a positive significant treatment effect on changes in income has been realised primarily driven by enhanced mining incomes. The effect was similar for male and female headed households. Advocacy towards duty-bearers contributed to increased prices, at least as a principle. There is however no clear effect on diversification of incomes.

5.7 EFFECTS ON ASSETS AND OTHER ECONOMIC INDICATORS

We find significant positive impact on several key economic indicators, but a lot of this is driven by differences with Siankope. Specifically, households in the supported group reported improvements in mining income and crop income (see above), housing quality, and mobile phone ownership compared to control group households. These findings suggest that the programme interventions contributed to enhancing both economic activities and living conditions for the supported households in the targeted communities, compared to the control households. Table 30 groups together a series of estimates comparable to the ones above, which illustrates the positive effect.

Table 30. Other wealth and income indicators

Variable	Treated	Controls	Difference (DiD)	Significance
Changes in food security	0.758	0.831	-0.074	
Changes in mining income	1.404	0.990	0.413	***
Changes in crop income	1.087	0.620	0.468	***
Changes in livestock (number)	-6.570	-7.461	0.891	
Changes in land ownership (ha)	1.003	0.712	0.319	
Changes in housing quality (index)	0.733	0.329	0.404	***
Changes in mobile phone ownership (yes, no)	0.459	0.310	0.149	**

Model: PSM and DiD.
Housing quality is based on an index taking the value 0 if households reported floor=earth/sand, roof= thatched/palm leaf and wall=pole/mud, up to a 3 if households reported floor=concrete, roof= metal/iron sheets and wall=burned bricks. *** p<0.01, ** p<0.05, * p<0.1. Decrease=0, same=1, increase=2.
Source: Diakonia/Caritas Impact Survey, 2024.

However, when excluding Siankope as a control community and relying only on supported and control households within supported villages, we observe that changes in crop income is no longer well-determined (significant). See Table 31. It is noted that in the simple matching there is a higher significance of changes in mining income and mobile ownerships compared to the expanded (the table only includes the simple matching when there is a difference).

Table 31. Other wealth and income indicators – excluding Siankope

Variable	Matching	Treated	Controls	Difference (DiD)	Significance
Changes in food security	Expanded	0.754	0.807	-0.054	
	Simple	1.400	1.044	0.356	**
Changes in mining income	Expanded	1.451	1.115	0.336	*
Changes in crop income	Expanded	1.028	0.934	0.094	
Changes in livestock (number)	Expanded	-7.095	-7.906	0.811	
Changes in land ownership (ha)	Expanded	1.016	0.797	0.219	
Changes in housing quality (index)	Expanded	0.723	0.238	0.484	***
Changes in mobile phone	Simple	0.459	0.273	0.187	**
ownership (yes, no)	Expanded	0.453	0.295	0.157	*

Model: PSM and DiD.
Housing quality is based on an index taking the value 0 if households reported floor=earth/sand, roof= thatched/palm leaf and wall=pole/mud, up to a 3 if households reported floor=concrete, roof= metal/iron sheets and wall=burned bricks. *** p<0.01, ** p<0.05, * p<0.1. Decrease=0, same=1, increase=2.
Source: Diakonia/Caritas Impact Survey, 2024.

At the same time, the analysis reveals no substantial impact (treatment effect) on other critical areas, such as food security, livestock ownership (as mentioned above), and land ownership. Despite the positive effects on income and assets, these particular dimensions of household welfare appear to remain unchanged by the interventions.

Amongst female-headed households the intervention's effect is similarly well-determined for most of these outcomes. Considering gender aspects, Table 32 shows, that the positive impact estimates for female-headed households in terms of changes in mining income, crop income, and housing quality are comparable to those for the entire sample. However, when it comes to mobile phone ownership, the significance disappears when focusing only on female-headed households (not reported, only statistically significant results are included in the table).

Table 32. Other wealth and income indicators – female-headed HHs only

Variable	Sample	Difference (DiD)	Significance
Changes in mining income	Female-headed HHs	0.428	**
Changes in crop income	Female-headed HHs	0.499	***
Changes in housing quality (index)	Female-headed HHs	0.364	***

Model: PSM (but not matching on gender) and DiD..
Housing quality is based on an index taking the value 0 if households reported floor=earth/sand, roof= thatched/palm leaf and wall=pole/mud, up to a 3 if households reported floor=concrete, roof= metal/iron sheets and wall=burned bricks. *** p<0.01, ** p<0.05, * p<0.1. Decrease=0, same=1, increase=2.
Source: Diakonia/Caritas Impact Survey, 2024.

Additionally, when comparing impact estimates between male and female-headed households within the supported group (not reported), no significant differences are observed across any of the categories considered.

In sum, we find significant positive impact on several key economic indicators, but a lot of this is driven by differences with Siankope. The intervention's effect on housing, mining and crop income is similarly well-determined for female-headed households but not when it comes to mobile phone ownership.

5.8 EFFECTS ON TREES

As mentioned above, 200 guava trees were provided to schools and selected households. The aim was to provide fruit for consumption, provide shade and mitigate environmental degradation. Guava trees are drought-resistant, making them resilient to the arid and semi-arid conditions found in Zimba/Kalomo, something which is crucial for adaptation to climate change.

Trees in general. The qualitative field visit confirmed that tree orchards had been planted in schools, and the survey data indicated that both the supported and control groups experienced an increase in the number of trees planted over the past five years.

However, our data (in Table 33 below) provide no evidence that more trees have been planted for the supported group specifically. Hence, we have no direct evidence that the improvements can be attributed to the programme interventions (i.e. there is no treatment effect). We see the same lack of effect when excluding Siankope, or when only looking at female headed households.

Table 33. Tree planting

Sample	(1) Full	(2) All excl. Siankope	(3) Only female-headed HHs
DiD estimates	0.039	-0.955	-0.086

Model: PSM and DiD. For female headed HHs the PSM did not include matching on gender.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

The baseline report and risk assessment of the Sida appraisal of SAP II identified a medium risk on environmental degradation. While there has been an attempt to promote tree planting and in particularly fruit orchards, which was also confirmed by various government officials, it was not an element that the participants who attended the impact workshops focused much on. In workshops conducted with women from Chilobe, tree planting was not mentioned at all, while in Chilubwa women shared that every household was given white guava.

Fruit trees. Although the data does not provide evidence that supported households, in general, are planting more trees as a result of the programme interventions, we do find a significant higher probability that supported households as compared to control households have planted *fruit trees* (Table 34). This result is also confirmed when excluding Siankope and when looking at female headed households only.

Table 34. Fruit trees only (differences in share of HHs having fruit trees)

Sample	(1) Full	(2) All excl. Siankope	(3) Only female-headed HHs
DiD estimates	0.176***	0.148**	0.150**

Model: PSM and DiD. For female headed HHs the PSM did not include matching on gender.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

Gender differences. The survey data indicates a difference between male and female-headed households in terms of tree planting with male-headed households planting more trees in both the supported and control group compared to female-headed

households. However, in terms of impact, we see that female-headed supported households have increased the number of trees significantly more than supported male-headed households (Table 35, column 1). For fruit trees the result is however not significant.

Table 35. Comparing male vs female-headed households within the supported group

Variables	Trees	Fruit trees
DiD estimates	-2.482***	-0.111

Model: PSM but without matching on gender and DiD.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

Summing up, there is a concrete effect on fruit tree planting especially for women's ownership of fruit trees. Schools benefit from orchards but the effect is less evident in terms of environmental protection, and the understanding of this element is less consolidated, especially in Chilobe.

5.9 EFFECTS ON WATER, SANITATION AND HEALTH SERVICES

As reflected in the result chain, impact on health care, water and sanitation services were expected to occur from the programme support as an effect of advocacy towards duty-bearers.

No impact on health services and sanitation was detected. Qualitative data suggests that there were no significant improvements in sanitation facilities nor in access to healthcare as a result of the intervention. Sanitation facilities improved for both control and supported groups, but since there was no difference between them, the effect cannot be attributed to the programme. Community health providers shared that no improvements were achieved comparing to before COVID-19 concerning health services.

Access to water has improved. This is reflected by a 16-17% reduction of time for collecting water. Stakeholder consultations confirmed that a new borehole and a smaller water pipe had been established in respectively Chilubwe and Chilobe as a result of the mining cooperatives negotiation with buyers of minerals from the mines.

Summing up, there has been an effect on access to water while no effects were realised in terms of enhancing health services and sanitation services.

5.10 EFFECTS ON PROTECTIVE GEAR

Adaptation of safety gear was significantly higher among sensitised mining beneficiaries compared to the control group. Raising awareness about the use of protective gear in mining was a key component of the intervention. Sensitisation efforts were primarily channelled through mining cooperatives, though the message was also communicated during community meetings. At the site visits, use of rubber boots and masks was observed but e.g. use of helmets was not observed. Miners accompanying the evaluation team explained that safety equipment was mainly applied when entering a pit where the risks were high and less so in the open pits where the women were sorting and graining since the risks were limited.

Row 1 of Table 36 compares changes in the use of protective gear between beneficiary and non-beneficiary households, within that households that have mining income and that are located in supported villages. Here, we observe that supported households have seen a 25-percentage points improvement in the uptake of protective gear as compared to non-treated households.

Row 2 confirms that within the group of beneficiary households, the households that received training had a 37-percentage point improvement in the likelihood of using protective gear. This provides evidence in favour that sensitisation on protection and safety in mining activities had a positive impact on the use of protective gear. Stakeholder consultations reported of reduced accidents in the pits.

Table 36. Changes in use of protective gear

Sample	Treated	Controls	Difference (DiD)	Significance
HH with mining activity	0.352	0.102	0.250	***
Beneficiary HHs with mining activity	0.500	0.132	0.368	***

Model: PSM and DiD.
*** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

5.11 EFFECTS ON CHILD LABOUR

A key element of the sensitisation of community members concerned prevention of child labour. As mentioned above, artisanal mining is often a family matter and child labour is therefore not uncommon.[35] The needs assessment conducted by Caritas before the selection of the communities indicated that child labour was common and that children were usually accompanying women working in the mining sites. This was also confirmed by CCPJ foot soldiers and community members consulted during the qualitative data collection.

Research[36] has identified several interventions that can reduce child labour, such as food-for-schooling programmes and cash transfers conditioned on schooling. However, the Caritas intervention centred on advocacy, and the available evidence for such approaches is still limited. Existing studies have also noted that increased employment opportunities may lead to higher levels of child labour. Since the programme raised the prices paid to miners, there is a risk that it could inadvertently increase the use of child labour. Hence, the net result of the programme is of high interest.

The sensitisation activities of the programme centred on continuous advocacy by Caritas and, in particular, CCPJ foot soldiers during meetings and dialogues in the mining cooperatives and the communities. The messaging addressed the risks of having children in the mines. The message focused both on the dangers of bringing children to the mining sites (e.g. with working mother) and the use of children for labour. CCPJ emphasized the health hazards children face in mines and the loss of future opportunities if not in school.

Qualitative consultations confirmed that supported community members were able to reflect upon the risks and also had examples of how children had been injured or even died on the sites.

The results. The evaluation of SAP II claimed that child labour had been eradicated.[37] Our survey results and qualitative stakeholder consultations did indeed indicate that child labour has decreased significantly (although it has not disappeared completely) within the Caritas supported group. Furthermore, no children were observed during our

[35] Kaczmarka, M.; Clube, R.K.M; Mubanga, F.C and Tomei, J. (2025), A policy and practice divide? Zambia's artisanal and small-scale mining sector and the Sustainable Development Goals, Journal of Rural Studies; Siwale, Agatha; Siwale, Twivwe (2017), Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia; The Extractive Industries and Society, Volume 4, Issue 1, January 2017.
[36] Dammert, A. C; Hoop, Jacobus de; Mvukieyehe, Eric; Rosati, Furio C. (2017), Effects of Public Policy on Child Labor Current Knowledge, Gaps, and Implications for Program Design.
[37] Sida Decentralised Evaluation (2022), Strengthened Accountability Programme II, 2022.

visits to two different mines, despite a lot of women being engaged in the mining. Narratives from community members indicated that accidents involving children had been reduced after they were no longer allowed in the mining pits.

Table 37 shows the results from the data analysis on changes in child labour practices before and after the intervention across the supported groups. The data reveals that households involved in mining activities within the supported group are 12-16% less likely to employ child labour in their production processes after the programme interventions. This result is even more important considering that prices have increased which also risks increasing child labour.[38]

Only considering supported households as those receiving sensitisation support increases the impact to between 26-30%. This reduction suggests that the intervention has had a significant impact on curbing child labour among these households, reflecting a shift towards more responsible labour practices in the mining sector.

Table 37. Changes in child labour

Treatment definition	All treated	Only sensitisation treatment
DiD estimates	-0.161***	-0.302***
	(0.0541)	(0.0720)

Model: PSM and DiD.
Standard errors in parentheses. Excluding Siankope does not change the overall result nor the point estimate. *** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

The effect of higher mining prices. There is evidence, as pointed out above, that higher income increases and higher prices for minerals can also sometimes lead to a negative effect of increased child labour.[39] As we have seen earlier, the programme has led to both, hence there is risk that this could increase the use of child labour.

As we saw above, however, for the households participating in the sensitization this has not been the case. In fact, the increased prices for the mining resources had allowed mothers to only go to the mines e.g. in the weekend when other family members could look after young children.

However, there are also indications that this has increased the number of children under 18 doing mining amongst the control group, although not significantly.

[38] Dammert, A. C; Hoop, Jacobus de; Mvukieyehe, Eric; Rosati, Furio C. (2017), (Effects of Public Policy on Child Labor Current Knowledge, Gaps, and Implications for Program Design.
[39] Dammert, A. C; Hoop, Jacobus de; Mvukieyehe, Eric; Rosati, Furio C. (2018), (Effects of Public Policy on Child Labor Current Knowledge, Gaps, and Implications for Program Design.

In sum, the intervention has contributed to a reduction of child labour in the supported communities. This is an important effect considering the risk related to higher prices. While insignificant, there are indications that child labour has increased among non-supported household due to improved prices.

5.12 EFFECTS ON EDUCATION

According to stakeholder consultations, children were now to a higher degree in school finalising 10 years of schooling.

In Chilobe, the mining cooperative also requested a buyer of minerals from the mines to pay for building of a teacher's house which he did. The CSO "Response Network" recently renovated the primary school in Chilubwa which is likely to have influenced positively on school quality in this community, according to interviews conducted with the school committee members. Perceptions of positive returns from education can have a positive influence on child labour.[40]

The decline in child labour within supported households could also have contributed to broader developmental goals, such as improving children's access to education and overall well-being. Literature however indicates that while this is an expected effect, evidence is still limited.[41]

5.13 EFFECTS ON GENDER NORMS

The interventions had a significant positive impact on self-reported joint decision-making and attitudes towards gender equality in the treatment households.

Table 38, column (1) presents PSM estimates to assess the likelihood of households reporting joint decision-making. The results show that supported households are 19% more likely to involve both partners in decision-making processes.

In column 2 we present matched PSM and DiD estimates based on self-reported changes. These estimates confirm a significant and well-determined positive difference between supported and control groups.

In column 3 (PSM estimate), we introduce a gender equality index to ensure the robustness of these results. This index takes the value of 0 if a household believes that

[40] Dammert, A. C; Hoop, Jacobus de; Mvukieyehe, Eric; Rosati, Furio C. (2018), (Effects of Public Policy on Child Labor Current Knowledge, Gaps, and Implications for Program Design.
[41] Dammert, A. C; Hoop, Jacobus de; Mvukieyehe, Eric; Rosati, Furio C. (2017), (Effects of Public Policy on Child Labor Current Knowledge, Gaps, and Implications for Program Design.

(i) women should not be allowed to own land, (ii) male children should be given priority in education, and (iii) men make better leaders than women (these questions are repeated from the baseline study). For each statement that the household disagrees with, they receive one point, resulting in an index score ranging from 0 (indicating severe gender inequality) to 3 (indicating more egalitarian views).

The findings show that supported households are significantly more likely to hold more gender-equal views, suggesting that the programme interventions not only have influenced decision-making practices but also fostered a shift towards greater gender equality within households. These results underscore the programme intervention's broader social impact, promoting shared decision-making and challenging traditional gender norms, particularly in the context of household power dynamics and attitudes toward gender roles.

Table 38. Household Decision Making

Model	PSM estimates	PSM+DiD estimates	PSM estimates
Variables	Joint decisions	Change in joint decisions	Decision index
Column	(1)	(2)	(3)
	0.190***	0.251***	0.107*
	(0.0549)	(0.0457)	(0.0555)

Model: See column headings
Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1
Source: Diakonia/Caritas Impact Survey, 2024.

Robustness tests. All results are confirmed in Table 39, when excluding Siankope (columns 1, 3 and 5) and redefining the support variable to only considering those supported households that received gender equality sensitisation (columns, 2, 4 and 6). It is especially worth noting the significant point estimate increase in column 4 suggesting that gender equality sensitisation has significantly changed the perception of households on gender equality matters.

Table 39. Household Decision Making – robustness

Model	PSM estimates		PSM+DiD estimates		PSM estimates	
Variables	Joint decisions		Change in joint decisions		Decision index	
Column	(1)	(2)	(3)	(4)	(5)	(6)
Variant	Excl. Siankope	Sensitation used as treatment	Excl. Siankope	Sensitation used as treatment	Excl. Siankope	Sensitation used as treatment
	0.149**	0.194***	0.191***	0.379***	0.131*	0.166**
	(0.071)	(0.070)	(0.0611)	(0.067)	(0.071)	(0.069)

Model: See column headings.
Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.
Source: Diakonia/Caritas Impact Survey, 2024.

The Baseline study for SAP II measured attitude towards women's rights in the communities based on the same questions as included in the gender index mentioned above.[42] While the baseline was not implemented in the programme communities (Chilobe and Chilubwa), other communities from both Kalomo and Zimba were included. In 2020, respectively 75% of women, 25% of men and 9% of youth in Kalomo and Zimba had positive attitudes towards women's rights. Comparing this with our data we see that women's attitude towards women's rights have largely remained the same as before programme implementation. However, the impact survey shows that men are much more positive towards women's rights after the programme than they were before.

5.14 EFFECTS ON GBV

The survey data find no evidence that the programme interventions have had a direct impact on reducing GBV. In the previous section we saw that there were effects on self-reported gender attitudes. There are however no indications that the interventions have reduced GBV. It is furthermore noted that prevalence of violence is higher among the supported group than the control group.

Literature indicates that reduction in GBV requires long-term sensitisation and thoroughly planned interventions to have an effect[43] and while the overall Diakonia SAP programme highly emphasised gender equality and prevention of GBV, this element only formed limited part of the project interventions in Chilobe and Chilubwa.

To measure this, an index was constructed based on responses to 18 questions related to various aspects of GBV. The index ranges from 0, indicating no GBV, to 45, representing severe GBV. Overall, the results (Table 40) do not show any significant differences in GBV levels or changes over time between supported and control households. Excluding Siankope, did not change this conclusion.

[42] The baseline index was however based on five questions, and not three, so it is not fully comparable: However, it still indicates the level in 2020. The questions were: 1) Whether men should have more rights than women; 2) Women owning land or any property; 3) Level of education between wife and husband; 4) Prioritizing education for boy over girl child; 5) Better leaders between men and women.

[43] What Works (2020), Effective design and implementation elements in interventions to prevent violence against women and girls.

Table 40. Gender Based Violence levels and changes over time

Model	PSM estimate		PSM+DiD estimate	
Variables	GBV index	GBV index	GBV change	GBV change
Sample	All	Excl. Siankope	All	Excl. Siankope
	1.147	-2.263	0.675	-2.453
	(1.061)	(1.595)	(1.035)	(1.608)

Model: See column headings.

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: Diakonia/Caritas Impact Survey, 2024.

When only considering female respondents' answers there are indications that violence occurs to a larger extent in the supported group than in the control group.

However, the change to a negative point estimate when excluding Siankope leads us to dig a bit further into the specification and rerun all regressions but redefining treatment to include only households receiving gender equality sensitization support (Table 41). The point estimate remains negative (suggesting that GBV has seen improvements in support households) but the estimate is not well-determined (insignificant), thereby supporting the overall conclusion referred to above.

Table 41. Gender Based Violence – Zooming in on gender equality sensitisation

Model	(1) PSM estimate	(2) PSM+DiD estimate
Variables	GBV index – sensitisation	GBV change - sensitisation
Female respondents only on GBV levels	-1.932	-1.949
	(1.503)	(1.484)

Model: See column headings.

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Source: Diakonia/Caritas Impact Survey, 2024.

The qualitative evidence related to GBV supported this finding from the survey. According to stakeholder consultations, GBV has not been a key focus area of the programme interventions and not something the communities mentioned as an explicit emphasis. Also, it was not investigated as part of the baseline study, confirming this lack of focus.

According to consultations with Caritas/Diakonia, the emphasis on gender and in particular GBV has varied from partner to partner and while some implementing partners such as Women for Change has had a strong focus on GBV[44] this has not been the case for Caritas. With the overall aim of the SAP II to promote women's rights' it

[44] Sida Decentralised Evaluation (2022), Strengthened Accountability Programme II, 2022.

seems to be a missed opportunity to not address GBV as this represents a severe barrier to gender equality. It is worth noting that, women in supported households were more likely to seek help in addressing GBV issues compared to women in control households, but this difference seems to be related more to the higher prevalence of violence than to indications of empowerment.

In sum, the Caritas intervention has had a significant positive impact on joint decision-making and attitudes towards gender equality in the supported households. There was however no evidence that the intervention has had a direct impact on reducing GBV which requires a more dedicated and long-term focus.

6 Impact in Perspective

6.1 "SCALE" OF IMPACT

The Diakonia SAP programme has according to the SAP II final evaluation reached an estimated total of 5,150 rights holders (3,032 females and 2,128 men) across 13 districts in North-western, Lusaka, Copperbelt, Luapula & Southern Provinces. This indicates a rather limited scale of impact considering that there are around 13 million people living in these provinces. However, this also has to be related to the funding available (see Table 5).

The SAP evaluation and M&E data do not allow for disaggregation by youth but only by female and male beneficiaries indicating that data on age is not systematically collected.

6.2 IMPACT FOR SPECIFIC TARGET GROUPS

The Diakonia SAP II programme documents and results framework clearly reflects a focus on women and young people and gender equality. These groups are explicitly mentioned in several immediate and intermediate outcomes.

Findings in the SAP II evaluation indicate outcomes for youth and women but it is challenging to separate the two groups. There is also a tendency that youth have a male face and refers only to male youth and not female youth who are included in the women category. This is not uncommon in rural Zambia.[45] This challenges the assessment of which youth are impacted. According to the impact survey data it is however noted that the supported group is slightly older than the control group. Nevertheless, concrete examples of reduction of child labour and improved school facilities are indicating an impact on school children and thus youth.

Examples of achieved empowerment initiatives for women are the funding from the Community Development Fund to women's clubs and the enhanced income from mining, which has also improved opportunities for women. However, a high level of GBV indicates that root causes for gender inequity have still not been properly addressed.

[45] E.g. Sida/NCG (2023), Mid-Term Evaluation of the Women Economic Empowerment Project in Zambia.

6.3 SYSTEMIC IMPACT AND SUSTAINABILITY

Impact at the local level. The programme did not succeed in supporting the communities in acquiring mining licenses that would give the communities the legal permission and rights to continue extracting minerals from the mines. The evaluation team's consultations with government officials revealed that they were well aware of Chilobe's application and their wish to acquire a license. Chilobe was the first community to apply for a license, but after the initial rejection (application fee was paid by Caritas) the cooperative had not followed up due to a lack of ability to pay the application fee.

This indicates that even if the communities have acquired awareness on their rights, and revenue is generated from cooperative membership fees, there is a tendency for them to still sit and wait for projects to come and pay for them and fix the challenges instead of solving them as an organisation. This also raises concern whether community members have been empowered enough to influence practices and policies without the support from Caritas Zambia and the CCPJ foot soldiers.

An important achievement from the programme implementation has been that the *visibility* of the two benefitting communities has been enhanced. This will most likely lead to continued support in the future. Both communities are located 3-4 hours away from Kalomo, where the main highway is passing, and local government officials explained to the evaluation team they had never been to the communities, nor heard of them, before the programme started. The higher visibility of the communities had already resulted in further visits from government officials to discuss possibilities for additional support including agriculture extension services.

While the attitudes towards women's rights have improved at local level and women's clubs have been established during programme implementation, there were limited achievements on addressing GBV. Thus, systemic changes in terms of gender equality have not fully been realised. As reflected above, gender equality has achieved concrete results at the local level, mainly in terms of decision making and enhanced perceptions toward women's rights.

At the same time, organisational achievements and linkages to the Community Development Fund have been achieved. In Chilobe, one Women Club received a grant from Community Development Fund to initiate a cattle cooperative. While this funding was far from sufficient for the purpose of the club it was an important achievement for the club to become aware of the opportunity to apply for the Community Development Fund and even be successful in its application with potential to inspire other women's clubs to apply for funding.

At the national level, the SAP II evaluation found limited results achieved on gender equality.[46] A similar finding was noted in the SAP I Evaluation where a key gap had been on gender equality and mainstreaming.[47] According to Caritas' Annual Report 2021,[48] activities concerning the national level such as influencing policies for Gender Equity and Equality had not been implemented. This was unfortunate, not least since after the Election in 2021, the Ministry of Gender was abolished and is today only a division at much lower influential level.

[46] Sida Decentralised Evaluation (2022), Strengthened Accountability Programme II, 2022.
[47] Nangoma Consult Limited (2017), End of Project Evaluation Report for the Diakonia, Zambia Country Office, Strengthened Accountability Programme (2014-2017), November 2017.
[48] Caritas Zambia (2022) Strengthened Accountability Programme, Annual Report on January to December 2021, 15th March 2022.

7 Concluding Remarks

We find significant results in most of Sida's poverty dimensions in terms of *resources*, *opportunities and choice*, and *human security*, although not within all expected areas. Thus, while the reconstructed Caritas results chain has largely been confirmed in its poverty dimensions, not all chains have worked as anticipated. The results are summarized in Table 42 below.

Overall, we find that the intervention has contributed to increases in income, in particular from mining activities, as well as in some assets. It has also contributed to improved water access within the supported communities which saves times (not least for women) and enhances the human capital. We also find a significant positive effect on tree planting (fruit trees) for women. The intervention's *advocacy* has contributed to these specific impacts and the communities' greater visibility.

On the other hand, the programme has not yet led to the expected improvements in access to health services, sanitation, livestock and food security. Some indications of enhanced food availability were however noticed, although insignificant.

Conservation farming has proven difficult to promote through the intervention. This may reflect a less intensive training compared to other programmes as well as the influence of some contextual factors related to this particular area. For instance, conservation farming is typically more labour-intensive, require more weeding, and access to fertilizers. All factors which are difficult to comply with for remotely located mining communities. While extension services have improved in the mining communities, no additional inputs have been provided.

Goat rearing has also proven difficult to promote through the intervention, reflecting a generally decreasing trend in the area during the period.

In terms of *gender equality*, we find that there has been a positive effect on attitudes towards women and more joint decision making is now taking place within households. While women are increasingly organising in women's clubs, evidence is less convincing on the sustainability of these as there is a tendency for them to wait for new funding rather than being proactive.

In relation to *human security,* child labour has significantly reduced. There are however indications that child labour has increased among the control group which is a risk when mineral prices increase. There was no impact in terms of reduced GBV, likely due to a less systematic long-term intervention approach.

Table 42. Summary of effects from the Caritas intervention

Variable	Section	Effect for beneficiaries	Effect for women
Cooperative membership	5.1	Positive	Positive
Implementing conservation Farming	5.2	No effect	No effect
Crop Incomes	5.2 & 5.7	Positive, but only if Siankope is included. If there is an effect, it is not due to Conservation Farming.	NA
Goats	5.3	No effect	Bigger loss than men
Livestock	5.3	No effect	NA
Total incomes	5.4	Positive (largely driven by mining incomes)	Positive (largely driven by mining incomes)
Mining income	5.5 & 5.7	Positive	Positive
Income diversification	5.6	No effect	No effect
Food security	5.7	No effect, but with more food availability	No effect
Housing quality	5.7	Positive	Positive
Land ownership	5.7	No effect	NA
Mobile phone ownership	5.7	Positive	NA
Trees, all	5.8	No effect	No effect
Trees, fruit trees	5.8	Positive	Positive
Sanitation and health services	5.9	No effect	No effect
Water	5.9	Positive	Positive
Protective gear	5.10	Positive	NA
Child labour	5.11	Significant reduction (improved mining prices may have increased child labour slightly in non-beneficiary group)	NA
Education	5.12	Some anecdotal evidence of some improvements	NA
Gender equality	5.13	Positive	NA
GBV	5.14	No effect	No effect

The Strengthened Accountability Programme (SAP) in Zambia supported small-scale mining communities by strengthening their bargaining power to negotiate higher prices for mineral resources and advocate for improved local services. It raised awareness on occupational safety and child labour, rights and gender equality while promoting conservation farming to improve livelihoods.

Main methods: Mixed-methods, quantitative analysis of collected household survey data.

Positives: The core components related to mining yielded positive effects: increased income; reduced child labour and increased use of protective gear. There were also positive effects on assets and some social services.

Potential shortcomings: The farming component was less successful with no effect on crop income due to inconsistent and low uptake of conservation farming techniques. Distribution of goats also had no effects. Fruit trees for women were successful, however. While self-reported gender attitudes improved, there was no effect on gender-based violence. SAP explicitly targeted youth and women but this has not been sufficiently monitored.

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