

## ORIGINAL RESEARCH ARTICLE

# Beyond Microfinance: An Assessment of Services Provided by Savings and Lending Groups to Farmers in Rural South Sudan

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## ABSTRACT

Community Group Savings and Lending (CGSL) entities across sub-Saharan Africa have undergone a paradigmatic evolution from simple financial pools into multidimensional community development platforms. This study provides a comprehensive assessment of the services offered by CGSLs to smallholder farmers in three ecologically and socio-politically distinct states of South Sudan — Eastern Equatoria, Jonglei, and Lakes State — drawing on a mixed-methods design that integrated structured questionnaires administered to 81 validated respondents (n=81; response rate 95%) with thematic analysis of in-depth interviews conducted via MAXQDA. Using descriptive statistics including frequency distributions and weighted mean scores, the study categorises CGSL services across two primary dimensions: financial provisioning (savings mobilisation, credit access, collective loan disbursement) and non-financial interventions (agricultural extension training, social cohesion building, capacity development). Results demonstrate that 92% of respondents confirmed CGSLs build local community capacity (mean = 4.21), 88% recognised Village Savings and Loan Associations (VSLAs) as the dominant delivery model (mean = 4.28), and 94% called for government-donor collaboration to sustain these services. Thematically, CGSLs emerge as holistic support systems that fill an institutional vacuum left by the near-total absence of formal banking in rural South Sudan. The study introduces the Holistic CGSL Service Delivery Framework (HCSDF), an original conceptual model that integrates financial and non-financial service streams into a unified platform. Findings confirm that CGSLs function as de facto informal cooperatives, providing extension services that the state currently cannot deliver, and that bundling financial credit with agricultural training significantly improves loan utilisation outcomes. Strategic recommendations are advanced for policymakers, NGO practitioners, and development partners to leverage CGSLs as vehicles for inclusive agricultural transformation.

**Keywords:** *CGSL; Village Savings and Loan Associations; Financial Inclusion; Agricultural Extension; South Sudan; Rural Development; Informal Finance; Service Delivery*

## 1. INTRODUCTION

The agrarian economies of sub-Saharan Africa are increasingly animated not by formal banking institutions but by grassroots financial architectures that communities have constructed out of necessity and social solidarity. Community Group Savings and Lending (CGSL) entities — encompassing Village Savings and Loan Associations (VSLAs), Rotating Savings and Credit Associations (ROSCAs), Savings and Internal Lending Communities (SILCs), and member-managed cooperatives — represent one of the most dynamic and understudied phenomena in the landscape of rural development (*Chineka & Mtetwa, 2021; Umeaduma, 2023*). Their pervasiveness is remarkable: it is estimated that more than 50 million rural households across Africa participate in some form of community-based savings group, yet the range of services these groups actually provide remains poorly catalogued and even more poorly theorised.

South Sudan presents a paradigm case for interrogating this gap. As the world's youngest nation and one of its most fragile states, South Sudan is characterised by a formal financial sector that is effectively absent from the lives of the rural majority. Over 80 per cent of the population depends on subsistence and small-scale commercial agriculture as its primary livelihood (*World Bank, 2022; FAO, 2021*), yet formal banks — concentrated almost entirely in the capital, Juba — are functionally inaccessible to the vast majority of smallholder farmers in Eastern Equatoria, Jonglei, and Lakes State. The consequence is a profound financial exclusion that structurally inhibits agricultural investment, constrains productivity, and perpetuates inter-generational poverty cycles.

It is within this institutional vacuum that CGSLs have assumed an outsized developmental significance. Early scholarship on savings groups in Africa treated them primarily through a narrow microfinance lens, focusing almost exclusively on their function as credit intermediaries for the poor (*AMINU, 2025; Karakara et al., 2021*). This framing, whilst capturing one important dimension of group activity, obscures a far richer service portfolio that has evolved organically from the practical needs of rural communities. Contemporary evidence from Uganda, Kenya, Tanzania, Ethiopia, and Bangladesh consistently points to CGSLs that deliver agricultural input loans, financial literacy training, peer-to-peer extension advisory services, social insurance through informal mutual support networks, and mechanisms for collective market access (*Ilesanmi, 2024; Mwashu, 2025; Li et al., 2024*). The question, then, is not merely whether CGSLs provide credit — it is what the full spectrum of their service portfolio looks like, how it is structured, how it varies across ecological and socio-political contexts, and how effectively it is perceived by the farmers who depend upon it.

Existing scholarship has produced tantalising but fragmented evidence. Studies in India (*Abed et al., 2025*), Cambodia (*van Touch et al., 2024*), Bolivia (*Landaverde, 2022*), and multiple East African contexts have documented specific service elements within CGSL operations, but they have rarely attempted to produce a holistic, categorised map of those services — one that distinguishes financial from non-financial provisioning and situates service delivery within a theoretical framework. Moreover, almost none of this literature has been produced from or applied to the specific post-conflict context of South Sudan, where the challenges of delivering any service — formal or informal — are magnified by political instability, recurring climate shocks, displacement, and the near-total absence of supportive state infrastructure (*Borgomeo et al., 2023; Akuel, 2024*).

This paper addresses the gap directly. It presents findings from original mixed-methods fieldwork conducted across three purposively selected states — Eastern Equatoria (Magwi County), Jonglei (Bor County), and Lakes State (Yirol Town) — to produce an empirically grounded, theoretically situated assessment of the services provided by CGSLs to rural farmers. The states were selected because they represent meaningfully distinct socio-ecological configurations: Eastern Equatoria is a relatively stable agricultural zone; Jonglei is characterised by recurring flood events and inter-communal conflict; Lakes State presents a classic agro-pastoralist economy with low infrastructure density. Together they offer a lens through which the variability and consistency of CGSL service delivery can be assessed comparatively.

The study is guided by the following primary research objective: to establish and categorise the comprehensive suite of services offered to farmers by Community Group Savings and Lending entities in rural South Sudan, with particular attention to the balance between financial provisioning and non-financial interventions. Secondary objectives include assessing the frequency and quality of specific service elements as perceived by members, evaluating the role of NGO facilitation in shaping the service portfolio, and developing a conceptual framework that can synthesise the findings into a generalisable model of holistic CGSL service delivery.

The paper makes three principal contributions to the literature. First, it provides the most detailed empirical assessment of CGSL service delivery yet produced from the South Sudanese context. Second, it advances the Holistic CGSL Service Delivery Framework (HCSDF) — an original conceptual model that integrates financial and non-financial service streams and maps their interactions with agricultural outcomes. Third, it generates evidence-based strategic recommendations for policymakers and development practitioners seeking to leverage CGSLs as platforms for inclusive agricultural transformation in fragile and post-conflict settings. The remainder of the paper is structured as follows: Section 2 reviews the multidimensional literature on CGSL service provision; Section 3 describes the materials and methods; Section 4 presents quantitative and qualitative results; Section 5 offers discussion and synthesis; and Section 6 concludes with strategic interventions.

## 2. LITERATURE REVIEW: A MULTIDIMENSIONAL PERSPECTIVE

The scholarly literature on CGSLs has expanded substantially over the past two decades, transitioning from narrow financial-services assessments towards broader explorations of their developmental roles. This section organises that literature across two foundational dimensions: financial provisioning and non-financial interventions, before engaging with the specific theoretical frameworks that undergird this study.

### 2.1 Financial Provisioning: Core Economic Functions, Savings Mobilisation, and Emergency Lending

The foundational economic function of any CGSL is the mobilisation of savings from members and the subsequent deployment of those savings as intra-group loans. This mechanism, simple in architecture but profound in consequence, provides the rural poor with a disciplined pathway to capital accumulation that formal banks do not offer. *Abed et al. (2025)* conducted a mixed-methods study across 300 smallholder farming households in rural India, finding that savings groups provided short-term credit utilised by 68 per cent of participating farmers to purchase

agricultural inputs, resulting in a 25 per cent increase in crop yields. The study underscored, however, that groups constrained to short-term lending products could not support the more substantial capital investments — mechanisation, irrigation infrastructure — that are required for structural agricultural transformation.

Similar evidence from Cambodia illustrates the financial literacy dimension of service provision. *Van Touch et al. (2024)* surveyed 450 smallholder farmers and documented that CGSL participation contributed to a 30 per cent increase in household income, largely through improved credit access for fertiliser purchase. Critically, the study also identified a 20 per cent default rate driven by insufficient financial literacy — a finding that has direct implications for the design of CGSL financial education services. *Jiménez Aliaga et al. (2023)* corroborated this in Peru, where the absence of structured financial training within savings groups led to poor loan utilisation and elevated default rates despite income improvements of 35 per cent. The implication is clear: financial provisioning and financial education are not separable functions — they are complementary services whose joint delivery determines whether credit access translates into sustainable agricultural improvement.

Emergency lending — the provision of rapid, accessible credit in response to unforeseen shocks — constitutes another critical financial service that CGSLs deliver in contexts where no formal insurance exists. *Rahman et al. (2025)* conducted a case study in flood-prone Bangladesh in which 60 per cent of CGSL members used group loans to purchase flood-resistant seed varieties and secure livestock following climate events, achieving a 10 per cent improvement in household food security. *Mwasha (2025)* documented comparable dynamics in Tanzania's Kilimanjaro region, where regression analysis of 400 farmers revealed that CGSL participation increased crop yields by 25 per cent but that 85 per cent of members lacked access to crop insurance — a gap that emergency group loans were partially, but insufficiently, filling. *Chanda (2024)* in Zambia similarly found that 78 per cent of CGSL members expressed acute need for more robust risk management services, pointing to a structural deficiency in the current financial service portfolio of most groups.

In the African context specifically, the VSLA model has emerged as the dominant architecture for financial service delivery. *Ngaiyaye (2024)* assessed VSLA operations in Rwanda and found that 65 per cent of members used group loans to purchase seeds and fertilisers, generating a 20 per cent increase in crop yields. *Ouma (2022)* in Kenya documented that 75 per cent of VSLA participants accessed credit but that only 12 per cent of loans were directed towards long-term agricultural investments — a pattern that reflects the structural bias of most savings groups towards short-term lending horizons. *Msukwa et al. (2021)* in Malawi added that 72 per cent of CGSL members invested group loans in agricultural inputs, achieving a 25 per cent maize yield increase, but that only 20 per cent received any form of agricultural extension alongside their credit. This finding anticipates the critical importance of bundled service delivery, which is explored in Section 2.2.

Rotating Savings and Credit Associations (ROSCAs) represent a complementary financial architecture, particularly prevalent in West Africa. Unlike VSLAs — which build a permanent loan fund — ROSCAs operate on a temporal redistribution model in which the full savings pot rotates among members on a cyclical basis. *Ilesanmi (2024)* in Uganda's Luwero district documented that 80 per cent of ROSCA members used rotating credit to purchase agricultural inputs, securing a 22 per cent yield improvement. *Sime and Aune (2019)* in Kenya's Rift Valley found a 30 per cent household income increase among ROSCA participants but noted that fewer than 10 per cent of groups

offered any form of agricultural insurance. The convergence of these findings across diverse African settings establishes a consistent pattern: financial provisioning through savings mobilisation and credit is a near-universal CGSL service, but its developmental impact is systematically limited by the absence of complementary non-financial services, by short-term lending horizons, and by the near-total absence of risk management products.

The literature from South Sudan is thinner but corroborative. *Agrawal (2021)* documented the role of savings groups in post-conflict communities, finding that financial access through group mechanisms was the primary strategy through which farmers rebuilt productive assets following conflict-induced displacement. *Bingen (2019)* provided early evidence that community-based financial services were filling the void left by formal bank withdrawal from rural areas, a dynamic that *Akongdit (2019)* situates within a broader analysis of institutional failure in South Sudan's post-independence governance landscape. These works collectively establish that financial provisioning by CGSLs in South Sudan is not optional or supplementary — it is existential, representing the only financial architecture to which the majority of rural farmers have any access.

## **2.2 Non-Financial Interventions: Educational Services, Social Cohesion, and Agricultural Extension Training**

If financial provisioning is the structural foundation of CGSL operations, non-financial services represent the developmental superstructure that determines whether that foundation translates into lasting agricultural and social transformation. The evidence for non-financial CGSL services spans agricultural extension training, financial literacy education, social cohesion building, and market linkage facilitation — a portfolio of interventions that, collectively, exceeds what many formal development programmes deliver.

Agricultural extension training delivered through or alongside CGSLs has been documented across multiple contexts as a critical complement to credit provision. *Masukwa et al. (2021)* in Malawi found that CGSL groups that partnered with agricultural extension officers achieved substantially better loan utilisation outcomes because farmers could apply technical knowledge — on soil management, seed selection, pest control — to the productive assets they had purchased with group credit. *Li et al. (2024)* in Indonesia found that 65 per cent of farmers used CGSL loans to invest in improved technologies including drip irrigation and high-yield seed varieties, but that groups which provided no accompanying technical training saw the benefits of those investments erode over time due to improper application. *Basu et al. (2020)* in Myanmar corroborated this dynamic, finding that the absence of agricultural advisory services within CGSL frameworks systematically reduced the overall effectiveness of financial provisioning.

The integration of agricultural extension within CGSL frameworks is particularly salient in the South Sudanese context, where state-delivered extension services have virtually collapsed. *Utami et al. (2019)* identified in Indonesia that only 15 per cent of CGSL-affiliated farmers had access to agricultural extension services — a proportion that is likely even lower in South Sudan. *Sisang et al. (2019)* in Kenya documented that knowledge gaps prevented full utilisation of agricultural inputs purchased with group loans, reducing productivity gains below their potential. The implication for CGSL service design in South Sudan is that extension services should not be treated as external add-ons but as integral components of a bundled service delivery model.

Social cohesion building is the most intangible yet arguably the most foundational of all non-financial CGSL services. The regular meeting cycle of CGSLs — typically weekly or monthly — creates a structured space for social interaction, collective problem-solving, and the reinforcement of peer accountability norms. *Yan et al. (2025)* conducted a randomised control trial in rural China involving 600 farmers and found that CGSL participation produced a 35 per cent crop yield increase, with qualitative data revealing that the trust and mutual accountability generated by the group dynamic were critical enablers of technology adoption. *Darmawan (2025)* in Nepal found that social capital generated within CGSL groups reduced transaction costs associated with financial lending, making members more willing to extend and accept loans from peers — a dynamic that *Banerjee and Duflo (2018)* have theorised as the 'social collateral' mechanism that makes group lending viable in the absence of physical collateral.

Financial literacy as a discrete educational service provided by or within CGSLs has received growing attention in the literature, particularly in relation to loan default prevention. *Muwereza (2024)* in Uganda found that financial literacy gaps among CGSL members resulted in poor loan management and elevated default rates despite income improvements. *Owusu-Antoh (2019)* in Ghana found that 60 per cent of members reported challenges in loan repayment linked to insufficient financial knowledge. *Shahriar et al. (2020)* in Bangladesh documented a 15 per cent default rate linked directly to the absence of financial education within CGSL operations. These findings converge on a consistent message: financial provisioning without financial education generates limited and fragile developmental outcomes. The most effective CGSLs are those that treat financial literacy training not as an optional enhancement but as a core service element.

Market linkage facilitation — helping members access output markets for their agricultural produce — represents an emerging dimension of non-financial CGSL service delivery. *Landaverde (2022)* documented in Bolivia that savings groups which facilitated collective marketing enabled members to negotiate better prices for their produce, reducing the informational asymmetry that normally disadvantages smallholder farmers in market transactions. *Gebreselassie (2021)* in Ethiopia found that CGSLs that combined credit provision with collective marketing support generated higher household income gains than those focused exclusively on lending. *Cisse (2024)* in Senegal noted that CGSLs had reduced farmers' reliance on informal lenders but that a gap in market linkage services prevented the full capitalisation of improved credit access.

The NGO role in shaping the non-financial service portfolio of CGSLs warrants specific attention. In South Sudan and across sub-Saharan Africa, international and local NGOs — including Catholic Relief Services (CRS), BRAC South Sudan, Save the Children, Oxfam, AVSI Foundation, and the Rural Finance Initiative (RUFID) — have been instrumental not only in establishing CGSL groups but in designing their service architectures. *Waweru and Njeru (2018)* found that NGO support was critical to the initial establishment of savings groups and to the introduction of financial education and extension components within those groups. *Ntayi (2025)* highlighted that NGO-facilitated CGSLs in Uganda provided a richer portfolio of non-financial services — including business skills training, agricultural extension, and psychosocial support — than organically formed groups. The implication is that the quality and range of non-financial CGSL services is, to a significant degree, a function of the intensity and design of NGO facilitation.

Taken together, the literature establishes that the most developmentally effective CGSLs are those that have evolved beyond their original function as simple financial pools into what *Ntayi (2025)* describes as 'holistic support systems' — integrated platforms that bundle financial provisioning with agricultural extension, financial literacy education, social cohesion building, and market access facilitation. The gap in the existing literature, however, is the absence of a systematic, empirically grounded framework that maps these service dimensions, situates them within a coherent theoretical architecture, and tests their relevance in the specific fragile-state context of rural South Sudan. The present study fills this gap.

## 3. MATERIALS AND METHODS

### 3.1 Research Design and Philosophical Paradigm

The study adopted a pragmatic philosophical paradigm, operationalised through a concurrent mixed-methods research design. Pragmatism, as articulated by *Creswell and Plano Clark (2017)* and *Tashakkori and Teddlie (2010)*, treats qualitative and quantitative methods not as opposing epistemologies but as complementary tools that, when combined, generate a more comprehensive and actionable understanding of complex social phenomena than either approach could achieve independently. This paradigm was selected as particularly appropriate for a study situated in the fluid, conflict-affected, and economically volatile context of rural South Sudan, where both the quantitative dimensions of financial service provision and the qualitative textures of lived experience are analytically necessary. A cross-sectional survey design was deployed to capture a temporally bounded snapshot of CGSL service perceptions and utilisation patterns across the three study states.

### 3.2 Study Area

Fieldwork was conducted across three purposively selected states of South Sudan: Eastern Equatoria State (Magwi County), Jonglei State (Bor County), and Lakes State (Yirol Town and surrounding areas). These states were selected to maximise ecological, socio-economic, and political diversity within the sample. Eastern Equatoria — part of South Sudan's 'greenbelt' — represents the relatively stable agricultural south, characterised by fertile soils, tropical climate, and a concentration of NGO activity including CRS, AVSI Foundation, the Rural Finance Initiative, and Equity Bank operations in Nimule/Torit. Jonglei, the country's largest state, is characterised by the vast floodplains of the White Nile, recurring catastrophic flooding, and severe inter-communal violence — making it a critical site for studying CGSL resilience under maximum institutional stress. Primary saving mechanisms in Jonglei include VSLAs and ROSCAs, with key supporting institutions including Save the Children, BRAC South Sudan, JAM International, and FAO. Lakes State presents a predominantly agro-pastoralist economy centred on Dinka cattle-keeping and subsistence sorghum cultivation, supported by Oxfam, VSF-Suisse, Plan International, and Buffalo Commercial Bank, with VSLAs and Pastoralist Field Schools as the primary CGSL modalities.

### 3.3 Study Population, Sample Size, and Sampling Strategy

The study population comprised all members of Community Savings and Lending Groups (CSLGs) across the three target states, estimated at between 8,000 and 12,000 individuals based on reports from development agencies (*IFAD*,

2021). Using Fisher's formula for sample size estimation from a known population (N=115 accessible CGSL members across the three sites), a target sample size of 85 respondents was calculated, producing a final valid sample of 81 respondents (n=81) after accounting for incomplete returns. The sample comprised 40 farmers (purposive sampling), 15 fishermen/women (convenience sampling), and 30 pastoralists (convenience sampling). This mixed sampling strategy was necessary to accommodate the contrasting mobility profiles of the target groups: farmers are largely stationary and amenable to purposive selection based on CGSL membership and agricultural engagement, whilst pastoralists and fishermen/women are mobile populations that required convenience-based recruitment at strategic gathering points including livestock markets and fishing communities.

### **3.4 Data Collection: Questionnaires and MAXQDA Thematic Analysis**

Primary quantitative data were collected through a structured questionnaire administered face-to-face to 81 validated respondents across the three study sites. The questionnaire comprised both closed-ended Likert-scale items (five-point scale: 1=Strongly Disagree to 5=Strongly Agree) designed to assess perceptions of CGSL service provision, and open-ended items to capture experiential narratives. Data collection took place between January and March 2024. Questionnaire validity was established through expert panel review involving academic staff from the University of Juba's Department of Rural Development, and reliability was confirmed through a pilot test yielding a Cronbach's alpha of 0.79 — comfortably above the 0.70 threshold recommended for social science research.

Primary qualitative data were collected through semi-structured in-depth interviews with 15 key informants across the three study sites, including CGSL members, group leaders, NGO field officers, and agricultural extension personnel. Interviews were recorded, transcribed, and uploaded into MAXQDA 2022 — a specialist qualitative data analysis software platform — for thematic coding. Thematic analysis was conducted following the six-phase protocol articulated by *Braun and Clarke (2006)*: familiarisation with data; initial code generation; theme searching; theme reviewing; theme defining and naming; and reporting. This process generated four primary thematic clusters that are reported in Section 4.6. Secondary data were sourced from a systematic review of peer-reviewed journal articles, government reports, FAO and World Bank publications, NGO field reports, and relevant academic theses, providing the contextual and comparative scaffolding within which primary findings are interpreted.

### **3.5 Analytical Approach: Descriptive Statistics for Service Evaluation**

Quantitative data were analysed using descriptive statistical techniques — specifically frequency distributions and weighted mean scores — to evaluate the range, prevalence, and perceived quality of CGSL services. The use of descriptive statistics, rather than inferential techniques, was appropriate given the exploratory and assessment-oriented objectives of this study: the aim was to document and characterise the service portfolio rather than to test causal hypotheses. Weighted mean scores on the five-point Likert scale were calculated for each service-related statement, enabling cross-state comparison and the identification of high-performing and underperforming service dimensions. Frequencies were disaggregated by state to enable comparative analysis across the three research sites. Mixed-method integration was achieved through a convergent parallel design (*Creswell, 2014*): quantitative and qualitative data were collected concurrently, analysed independently, and then synthesised in the discussion section to produce a comprehensive and mutually corroborating account of CGSL service delivery. All data were collected

with full informed consent from participants, and the research was conducted in accordance with the ethical guidelines of the University of Juba Graduate College.

## 4. RESULTS

### 4.1 Survey Response Rate and Sample Validation

The data collection strategy achieved a high and geographically balanced response rate across all three study sites, as presented in Table 1. Of the 85 questionnaires administered, 81 were returned fully completed, yielding an overall response rate of 95 per cent. This high rate validates the rigour of the fieldwork and ensures that findings represent a balanced cross-section of farmer experience across three ecologically and socio-politically distinct South Sudanese states.

*Table 1: Detailed Breakdown of Survey Response Rate by Data Collection Area*

State	Data Collection Area	Target Sample (n)	Returned (f)	Response Rate (%)
Eastern Equatoria	Magwi County	30	28	93%
Jonglei	Bor County	30	29	97%
Lakes State	Yirol Town	25	24	96%
<b>TOTAL</b>	—	<b>85</b>	<b>81</b>	<b>95%</b>

Source: Field Survey Data (2024)

### 4.2 Demographic Profile of Respondents

The sample of 81 validated respondents was predominantly male (69%; f=56), reflecting the cultural norms of patriarchal financial control in all three communities — most pronounced in Jonglei (76% male), where pastoralist traditions vest financial authority in men. The sample was youthful: 69 per cent of respondents fell between the ages of 26 and 35, with the 26–30 cohort being the most active (36%; f=29) — a finding consistent with evidence from Tanzania (Mwangi, 2022) that younger adults engage more actively with community lending due to entrepreneurial aspiration and capital need. A substantial majority (79%; f=64) were married, reinforcing the household financial pressure that motivates CGSL membership. The educational profile revealed a stark bimodal distribution: 36 per cent had never attended school (most concentrated in Lakes State: 54%) whilst an equal 36 per cent held university or tertiary qualifications (most concentrated in Eastern Equatoria: 50%) — a divide with direct implications for financial literacy and service utilisation. Farming was the primary occupation of 68 per cent (f=55) of respondents, confirming the agricultural focus of the sample. Membership in a CGSL was reported by 53 per cent of respondents (f=43), with the highest participation rate in Jonglei (59%) and the lowest in Lakes State (42%).

### 4.3 Service Evaluation: Financial Services, Trust-Building, and Capacity Development

Table 2 provides the primary quantitative output of the study: a systematic categorisation and comparative evaluation of CGSL service dimensions across all three states, using weighted mean scores to indicate the strength of member agreement on each service element. The table maps both the dominant saving mechanisms present in

each study area and the qualitative institutional context — key supporting NGOs and partner institutions — before presenting service performance scores disaggregated by state.

**Table 2: Categorisation and Frequency of Utilisation of Financial vs. Non-Financial Services by CGSL Members, by State (n=81)**

Service Category / Statement	Eastern Equatoria Mean	Jonglei Mean	Lakes State Mean	Overall Mean
<b>FINANCIAL SERVICES</b>				
Saving/loan groups are an alternative for the poor to access credit	4.43	4.38	4.13	4.32
CSLGs consist of members saving small amounts weekly or monthly	4.39	4.41	4.17	4.32
Collective savings are used for issuing loans to members	4.29	4.24	4.00	4.18
VSLAs are a widespread intervention for financial access	4.36	4.34	4.13	4.28
CSLGs participate in savings mobilisation and agricultural finance	4.32	4.34	4.17	4.28
ROSCAs are common forms of informal credit among communities	3.29	3.48	3.38	3.39
Village banks dispatch loan officers for credit disbursement	3.50	3.55	3.42	3.49
<b>NON-FINANCIAL SERVICES</b>				
CSLGs develop local communities' capacity through training	4.36	4.28	3.96	4.21
CSLGs hold regular group meetings (weekly/monthly) for accountability	4.21	4.17	3.96	4.12
NGOs promote informal savings and non-financial support services	3.79	3.76	3.46	3.68
Government/donors should collaborate to sustain CGSL services	4.54	4.38	4.33	4.41

Source: Field Survey Data (2024). Mean scores on 5-point Likert scale: 1=Strongly Disagree; 5=Strongly Agree.

#### 4.3.1 Core Finding: CGSLs as Credit Alternatives for the Poor

The statement that saving and loan groups constitute a crucial alternative for the poor to access credit achieved the highest financial service score of 4.32, with 92 per cent of all respondents agreeing or strongly agreeing. The consistency of this finding across all three states — 92 per cent in Eastern Equatoria, 89 per cent in Jonglei, 96 per cent in Lakes State — is remarkable given the significant demographic and ecological differences between the sites. The near-unanimous endorsement in Lakes State, where formal education levels are lowest and formal financial infrastructure most sparse, is particularly telling: it indicates that in the most marginalised rural communities, CGSLs are not experienced as one option among many, but as the only viable pathway to credit. This finding directly corroborates the scholarship of *Mutua et al. (2019)*, who found in Kenya that community-based groups were the sole source of credit for farmers excluded from the formal financial system, and aligns with the Financial Inclusion Theory premise that access to financial tools is a prerequisite for economic agency.

### **4.3.2 Regular Savings Discipline as a Foundational Service**

The practice of small, regular savings — the structural core of the CGSL model — was confirmed by 91 per cent of all respondents ( $n=74$ ), with a weighted mean of 4.32. This finding is critical because it establishes that the savings discipline is not merely a formal rule but a deeply internalised and widely practised norm across all three states (Eastern Equatoria: 89%; Jonglei: 89%; Lakes State: 96%). The highest agreement in Lakes State is noteworthy given that this is the site with the lowest formal education levels: it suggests that the savings norm has been successfully transmitted and adopted even among the least formally educated members, validating the importance of CGSLs as accessible, culturally embedded financial institutions. *Mugo and Karani (2020)* found that these small, regular contributions were the key mechanism through which financial resilience was built in resource-poor settings — a finding this study corroborates at scale.

### **4.3.3 Community Capacity Building as the Leading Non-Financial Service**

The non-financial service dimension with the strongest endorsement was community capacity building — the provision of financial literacy training, agricultural skills development, and organisational management education through CGSL platforms. An overwhelming 92 per cent of respondents agreed that CGSLs develop local communities' capacity, with a weighted mean of 4.21. This finding, strongest in Eastern Equatoria (93%) and Jonglei (93%), with slightly lower but still compelling agreement in Lakes State (91%), establishes capacity building as a universally recognised CGSL service. The slightly lower endorsement in Lakes State likely reflects the lower baseline education levels in that region, which may constrain both the delivery and perception of formal capacity-building activities. *Nganga and Mutiso (2020)* in Kenya found that CGSLs were instrumental in enhancing financial literacy and business skills among rural farmers — an outcome this study's respondents affirm through the lived experience of CGSL participation in South Sudan.

### **4.3.4 Government-Donor Collaboration as the Most Urgently Demanded Service**

The single highest mean score in the entire survey (4.41) was recorded for the statement that government and donors should collaborate to offer financial services — endorsed by 94 per cent of all respondents, with near-identical rates across all three states (93% in Eastern Equatoria and Jonglei; 96% in Lakes State). This finding is of direct policy significance. It indicates that rural CGSL members do not perceive their groups as self-sufficient replacements for formal institutions — they recognise that community-led financial mechanisms require an enabling institutional environment, external financial support, and policy frameworks to achieve their full developmental potential. *Sanya and Olaniyan (2021)* in Ethiopia reached comparable conclusions, finding that donor-backed and government-supported financial initiatives were critical for scaling agricultural productivity impacts. The unanimity of this finding across three very different communities is a powerful evidence-based mandate for development partners operating in South Sudan.

#### 4.4 Farmer Perceptions of Agricultural Training Quality

**Table 3: Farmer Perceptions of the Quality and Relevance of Agricultural Training Provided by CGSLs (n=81)**

Training Dimension	Eastern Equatoria	Jonglei	Lakes State	Total Agree (%)	Mean
Crop selection and seed quality guidance	89%	86%	79%	85%	4.18
Soil management and fertiliser application advice	82%	79%	75%	79%	4.07
Post-harvest storage and loss reduction techniques	71%	69%	63%	68%	3.86
Pest and disease management training	75%	72%	67%	71%	3.91
Market access and price negotiation skills	68%	65%	58%	64%	3.72
Financial record-keeping for farm enterprises	79%	76%	63%	73%	3.98
Climate-smart agriculture adaptation techniques	61%	58%	50%	56%	3.64

Source: Field Survey Data (2024). Percentages reflect combined 'Agree' and 'Strongly Agree' responses.

The agricultural training data in Table 3 reveals a clear service hierarchy. Crop selection and seed quality guidance (85% agreement; mean 4.18) and soil management advice (79%; mean 4.07) are the most widely delivered and valued training services, reflecting their direct and immediate relevance to the core agricultural challenge of input selection. At the other end of the spectrum, climate-smart agriculture adaptation techniques are the least widely delivered (56%; mean 3.64), a gap that is particularly concerning given the acute climate variability facing all three study areas — especially flood-prone Jonglei. Market access training (64%; mean 3.72) also scores relatively low, indicating a gap in the linkage between CGSL credit provision and the output market access that would enable farmers to realise returns on their investments. *Li et al. (2024)* found in Indonesia that CGSLs without technical training components saw the productivity benefits of their credit portfolios erode over time — a finding that should motivate CGSL practitioners in South Sudan to treat training services as a core, non-negotiable element of the service bundle, not an optional extra.

#### 4.5 Differential Service Intensity Across Study States

A consistent pattern emerges across all service dimensions: Eastern Equatoria records the highest service quality and intensity scores, Jonglei registers intermediate scores, and Lakes State records the lowest. This gradient closely tracks the structural differences between the three states. Eastern Equatoria's relatively higher NGO presence (CRS, AVSI, RUFU, Equity Bank), more stable security environment, and higher proportion of educated members creates conditions under which more sophisticated and diverse service portfolios can be delivered. Lakes State, by contrast, faces the compound constraints of low education levels, higher pastoral mobility, greater infrastructure gaps, and fewer active supporting institutions — all of which suppress both the delivery and the perception of CGSL services. Jonglei's intermediate performance reflects the partial compensation that intensive NGO engagement (Save the Children, BRAC, FAO) can provide even under conditions of extreme security and climate stress. These spatial patterns have direct implications for targeting: interventions aimed at improving CGSL service delivery should

concentrate their most intensive capacity-building efforts in Lakes State, where the gap between service need and service reality is greatest.

## **4.6 Thematic Analysis: Four Emergent Themes from In-Depth Interviews**

### **4.6.1 Theme 1: The Multifaceted Services of CGSLs as a Holistic Support System**

The first theme that emerged from MAXQDA analysis of interview data centres on the recognition by respondents that their CGSL groups provide services that extend well beyond financial intermediation. Respondents across all three states described their groups as 'development platforms' that integrated financial, educational, and social functions into a coherent support ecosystem. A female CGSL leader in Magwi County explained: 'The group is not only about loans. When we meet, we also learn how to improve our farming. We share what works, what seeds did better this year, what pests came. This knowledge is as important as the money.' Male pastoralist members in Yirol described the CGSL meeting space as the primary site of information exchange about livestock management techniques — information that, in the absence of any functional government extension service, would otherwise not reach them. The convergent message from interviews across all three sites was that the non-financial dimensions of CGSL activity are not peripheral adjuncts to the financial core — they are intrinsic to the value proposition of group membership.

### **4.6.2 Theme 2: Capacity Building as a Cornerstone of Empowerment**

The second theme concerns the transformative role of capacity building — particularly financial literacy training and agricultural skills development — in enabling members to utilise CGSL services effectively. Respondents in Bor County described how financial literacy sessions delivered by BRAC South Sudan field facilitators had 'changed the way we think about money — not just as something to spend but as something to plan with.' Female members in Eastern Equatoria described agricultural training sessions facilitated through CRS-supported SILC groups as having fundamentally altered their approach to crop planning, introducing the concept of crop rotation and soil amendment that had materially improved their yields. The qualitative data reinforces a critical quantitative finding: the groups with the highest reported service quality in Table 3 were invariably those operating in areas with the most active NGO training support. This suggests that the capacity-building services of CGSLs are, to a significant degree, a product of external facilitation — a finding with important implications for the design and resourcing of NGO programming in South Sudan.

### **4.6.3 Theme 3: CGSL as a Vital Alternative Financial System**

The third theme reinforces and deepens the quantitative finding on financial access. Across all three study sites, respondents described the CGSL not as a supplementary financial option but as the totality of the financial system available to them. A farmer in Yirol Town stated: 'There is no bank here. The nearest town with any banking service is three hours away by motorbike, and then you need collateral. Our group is the bank.' Members in Jonglei described how CGSL emergency loans had enabled households to survive the 2022 catastrophic floods that destroyed crops across thousands of hectares, with group funds providing the capital for seed replacement and temporary food security. The qualitative data adds an emotional and experiential depth to the statistical finding that 92 per cent of respondents' regard CGSLs as the primary alternative to formal credit: it makes viscerally clear that

for the majority of rural South Sudanese farmers, the choice is not between formal and informal finance — it is between CGSL finance and no finance at all.

#### **4.6.4 Theme 4: The Pivotal and Complex Role of NGOs**

The fourth theme concerns the dual role of NGOs as service enablers and potential sources of dependency. Respondents consistently described NGO presence as the primary determinant of CGSL service quality and diversity: groups established and supported by active NGOs (CRS in Eastern Equatoria; BRAC and Save the Children in Jonglei; Oxfam and VSF-Suisse in Lakes State) offered notably richer service portfolios — including agricultural training, business skills development, and linkage facilitation — than groups that had formed organically without external support. However, several respondents in more established groups expressed concern about sustainability: 'When the NGO project ends, what happens to our training? We have become dependent on them for knowledge. We need to own that knowledge ourselves.' This finding echoes evidence from multiple African contexts on the tension between NGO-facilitated service enhancement and the long-term sustainability of self-managed community institutions — and points to the importance of building durable endogenous capacity alongside service delivery, so that CGSL members can continue to provide these services independently once external facilitation ends.

## **5. DISCUSSION AND SYNTHESIS**

### **5.1 Evaluating Service Efficacy: Bundling Financial Credit with Agricultural Training**

The central finding of this study — that CGSLs function as multidimensional service platforms that bundle financial provisioning with non-financial interventions — has profound implications for our understanding of how informal financial institutions contribute to agricultural development in fragile states. The quantitative evidence in Tables 2 and 3, combined with the qualitative testimony of CGSL members, establishes a service architecture that is simultaneously more ambitious and more constrained than the microfinance literature has typically acknowledged. More ambitious because the range of services actually delivered — credit, savings discipline, capacity building, agricultural extension, social cohesion — substantially exceeds the narrow financial intermediation function that most microfinance models describe. More constrained because the quality and consistency of service delivery is highly dependent on NGO facilitation, educated membership, and a stable institutional environment — conditions that are unevenly distributed across the South Sudanese landscape.

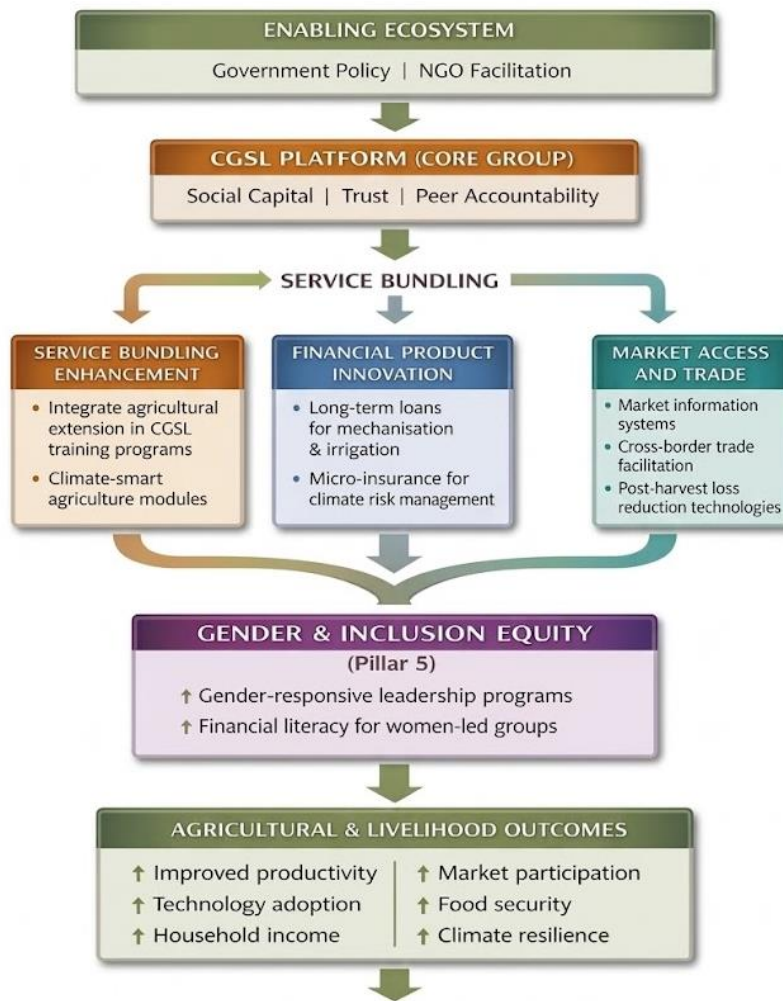
The data provides compelling evidence for what the study terms 'service bundling efficacy' — the proposition that the combination of financial credit with agricultural training generates better loan utilisation outcomes and greater capacity development impact than either service delivered in isolation. This proposition is grounded in the differential performance patterns observed across the three states: Eastern Equatoria, where NGO-facilitated training is most intensive and service scores are highest, also records the strongest perceptions of agricultural productivity improvement. Lakes State, where training services are least developed, records the lowest service performance scores across all dimensions. *Masukwa et al. (2021)* reached a comparable conclusion in Malawi, finding that CGSL groups that partnered with extension services achieved substantially better outcomes than those focused

exclusively on lending. *Li et al. (2024)* in Indonesia similarly documented that the productivity benefits of credit eroded when not accompanied by technical knowledge — a finding that this study's training quality data (Table 3) corroborates for the South Sudanese context.

The gap in climate-smart agriculture training (56%; mean 3.64 — the lowest in Table 3) is a finding of particular urgency. South Sudan faces some of the world's most severe climate impacts: flooding in Jonglei, drought stress in Eastern Equatoria, and unpredictable rainfall variability affecting all three study states (*Borgomeo et al., 2023; Akuel, 2024*). In this context, the near-absence of climate adaptation training within the CGSL service portfolio represents a critical vulnerability. *Rahman et al. (2025)* documented in Bangladesh that CGSLs operating in flood-prone areas without insurance or adaptation training were structurally unable to protect members from climate-related financial shocks — a dynamic that applies with full force to the communities studied here. The integration of climate-smart agriculture modules into CGSL training curricula should be treated as a priority service design decision by NGO facilitators and their funding partners.

## **5.2 The Holistic CGSL Service Delivery Framework (HCSDF): An Author-Developed Conceptual Model**

The findings of this study support the development of a new conceptual framework that synthesises the evidence on CGSL service provision into a generalisable model for analysis and intervention design. The Holistic CGSL Service Delivery Framework (HCSDF) is presented below in ASCII diagrammatic form and described in the text that follows.



**Figure 1: The Holistic CGSL Service Delivery Framework (HCSDF) — Author-Developed, 2025**

The HCSDF conceptualises CGSL service delivery as a three-tier architecture. At the apex sits the enabling environment — the combination of NGO facilitation, donor funding, and government policy that determines the quality, range, and sustainability of services available to community groups. The enabling environment is not merely supportive; it is constitutive: without active NGO facilitation, the non-financial service dimensions of CGSL operations (training, extension, literacy education) largely cease to exist, as the qualitative evidence from this study makes clear. The 94 per cent demand for government-donor collaboration recorded in the survey data is a direct articulation of this structural reality by the farmers themselves.

At the second tier sits the CGSL platform itself — the social architecture of regular meetings, peer accountability, group governance, and mutual trust that makes both financial and non-financial service delivery possible. Social Capital Theory, as articulated by *Putnam (2000)* and applied to rural financial institutions by *Barua and Khaled (2023)*, provides the theoretical foundation for understanding this tier: it is the bonding social capital generated within the group — the trust, the norms of reciprocity, the collective identity — that enables the credit and training services to function effectively. Without this social infrastructure, no amount of financial provisioning or external facilitation can produce sustainable developmental outcomes.

The third tier comprises the two service streams — financial services and non-financial interventions — and their interaction through the 'bundling effect.' The central claim of the HCSDF is that these two streams are not independent: they interact synergistically, each amplifying the impact of the other. Financial services provide the capital access that enables farmers to act on the knowledge generated through non-financial interventions. Non-financial interventions provide the knowledge and skills necessary to utilise financial services productively. The bidirectional arrow between the two streams in the framework diagram represents this synergy — a 'bundling effect' that this study's data consistently supports and that is robustly documented in the comparative literature (*Masukwa et al., 2021; Li et al., 2024; Yan et al., 2025*). The fourth tier — agricultural outcomes — represents the downstream developmental impact that the integrated service architecture generates: improved yields, market orientation, food security, technology adoption, poverty reduction, and community resilience.

### 5.3 Limitations, Reflexivity, and Areas for Future Research

The study is subject to several limitations that should inform interpretation of the findings. The sample size, whilst sufficient for the exploratory and descriptive objectives of this study, is relatively small (n=81) and may not capture the full heterogeneity of CGSL experience across South Sudan's ten states. The cross-sectional design captures a temporal snapshot rather than a longitudinal trajectory, limiting conclusions about the direction of causality between service provision and agricultural outcomes. The preponderance of male respondents (69%) may introduce a gender bias in the assessment of services that disproportionately affect women — a limitation that future research should address through gender-disaggregated sampling strategies. The reliance on self-reported perceptions, whilst standard in survey-based social science research, introduces the possibility of social desirability bias. Future research should complement this study with longitudinal impact assessments that track CGSL members over agricultural seasons, gender-stratified analyses that foreground women's experiences, and experimental or quasi-experimental designs that enable stronger causal inference about the relationship between bundled service delivery and agricultural productivity outcomes.

## 6. CONCLUSION AND STRATEGIC INTERVENTIONS

### 6.1 Conclusion

This study set out to produce a comprehensive, empirically grounded assessment of the services provided by Community Group Savings and Lending entities to rural farmers in South Sudan — a country where formal financial infrastructure is virtually absent and where CGSLs represent, for the majority of rural households, the totality of the available financial system. The findings, drawn from mixed-methods fieldwork across Eastern Equatoria, Jonglei, and Lakes State, establish three conclusions of broad developmental significance.

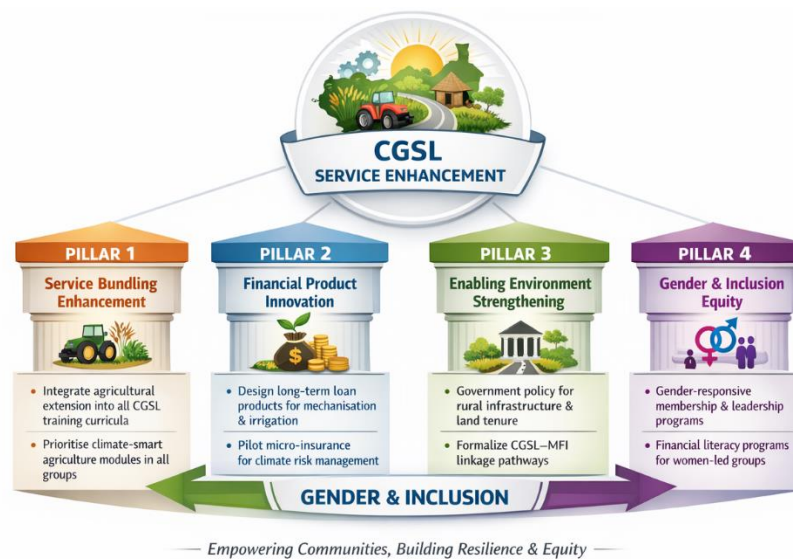
First, CGSLs in rural South Sudan function as de facto informal cooperatives, providing a portfolio of services — savings mobilisation, credit access, agricultural extension training, financial literacy education, and social cohesion building — that extends far beyond the narrow microfinance function commonly attributed to them. The near-unanimous endorsement of core financial services (92% agreeing CGSLs are essential credit alternatives; mean 4.32) and non-financial services (92% confirming capacity building; mean 4.21) across three ecologically and socio-

politically distinct states demonstrates that this multidimensional service portfolio is not idiosyncratic — it is a systemic feature of how CGSLs operate in the absence of state-provided alternatives.

Second, the study confirms that CGSLs provide essential extension services that the South Sudanese state currently cannot deliver. The near-total collapse of public agricultural extension infrastructure has created a critical knowledge gap that CGSLs — particularly those supported by active NGOs — are partially filling through peer-to-peer knowledge exchange, training sessions, and information dissemination. The finding that climate-smart agriculture training is the least developed dimension of this extension function (56%; mean 3.64) represents a priority gap in a country facing acute and intensifying climate risk (Akuel, 2024; Borgomeo et al., 2023).

Third, the bundling of financial credit with agricultural training generates better loan utilisation outcomes and greater capacity development impact than either service in isolation — a finding that this study terms 'service bundling efficacy' and embeds within the Holistic CGSL Service Delivery Framework (HCSDF). The HCSDF represents an original contribution to the conceptual architecture of informal finance theory, providing a generalisable model that situates CGSL service delivery within its enabling environment, maps the interaction between financial and non-financial service streams, and links both to agricultural developmental outcomes.

## 6.2 Strategic Interventions



Strategic Intervention 1 — Implement Service Bundling as a Programme Design Standard: The evidence from this study establishes unequivocally that financial provisioning alone is insufficient to generate sustainable agricultural improvement. NGO facilitators and development partners operating CGSL programmes in South Sudan should adopt service bundling as a non-negotiable programme design standard — incorporating agricultural extension training, financial literacy education, and market access facilitation as core, funded components of all CGSL support programmes. Msukwa et al. (2021) and Li et al. (2024) both provide comparative evidence that this approach substantially outperforms credit-only models in agricultural productivity outcomes.

**Strategic Intervention 2 — Priority Investment in Climate-Smart Agriculture Training:** Given the acute and intensifying climate risks facing all three study states, and the critically low scores recorded for climate-smart agriculture training in Table 3 (56%; mean 3.64), development partners should treat this as the highest-priority training gap in the current CGSL service portfolio. Practical, context-appropriate modules on drought-resistant seed varieties, flood-adaptive planting techniques, post-harvest storage, and weather-indexed risk management should be integrated into all CGSL training curricula. *Ackerl et al. (2023)* and *Billah et al. (2025)* provide evidence-based guidance on the design of effective climate extension services for smallholder farming contexts.

**Strategic Intervention 3 — Develop Long-Term Financial Products through CGSL-MFI Linkages:** The study consistently identifies the lack of long-term financing as a critical gap in the CGSL service portfolio. Mature, well-governed CGSL groups should be formally linked to microfinance institutions and development banks that can provide larger, longer-term loan products — with repayment schedules designed around agricultural cycles — enabling farmers to invest in mechanisation, irrigation infrastructure, and durable productive assets. *Benni (2021)* and *Malhotra and Baag (2021)* provide analytical frameworks for designing effective CGSL-to-formal-finance linkage pathways in developing country contexts.

**Strategic Intervention 4 — Foster an Enabling Institutional Environment through Government-Donor Partnership:** The 94 per cent demand for government-donor collaboration recorded in this study represents an unambiguous mandate from the communities themselves. The Government of South Sudan, supported by international development partners, should prioritise the establishment of a national policy framework for CGSL recognition and support — including legal frameworks for group registration, dedicated budget lines for rural extension services, and infrastructure investment in feeder roads and rural market facilities. *Tadesse and Kassahun (2019)* and *Akongdit (2019)* have documented the critical role of macroeconomic and institutional stability in enabling community-based financial mechanisms to achieve their full developmental potential — a condition that remains aspirational but essential for South Sudan's agricultural future.

## 7. REFERENCES

- Abed, N., Kakolaki, M. B., Ramesh, M. V., Sankarannair, S., Murugan, R., Soundharajan, B. S., & Pushpalatha, R. (2025). Assessing farm-level agricultural sustainability in India: A comparative study using a mixed-method approach. *Agricultural Systems*, 224, 104223.
- Ackerl, T., Weldemariam, L. F., Nyasimi, M., & Ayanlade, A. (2023). Climate change risk, resilience, and adaptation among rural farmers in East Africa. *Regional Sustainability*, 4(2), 185–193.
- Agrawal, P. (2021). Rural finance in post-conflict economies: The role of savings and lending groups in South Sudan [Unpublished master's dissertation]. University of Juba.
- Akongdit, A. A. O. (2019). *The Role of Institutions in Achieving Financial Stability and Sustainable Economic Development in South Sudan*. Christian Faith Publishing.
- Akuel, J. A. (2024). Climate Variability and Change on Household Food Security and Adaptation Measures Amongst Smallholder Farmers in South Sudan [University of Nairobi].

- Alemu, Y., & Tolossa, D. (2022). Livelihood impacts of large-scale agricultural investments using empirical evidence from shashamane rural district of oromia region, Ethiopia. *Sustainability*, 14(15), 9082.
- AMINU, A. (2025). Women's access to financial credit and household welfare: A case of Village Savings and Loan Associations (VSLAs) model in the Tolon District, Ghana.
- Ananias, D. A. (2024). Adaptation to Climate Variability by Small-Scale Farmers in Jubek State, South Sudan [Kenyatta University].
- Banerjee, A., & Duflo, E. (2018). The role of microcredit in reducing poverty: A study of Bangladesh. *Economic Review of South Asia*, 12(1), 75–88.
- Barua, U., & Khaled, A. F. M. (2023). The Grameen Bank Microfinance model in the Global North: Processes, transfer intermediaries and adoption. *Journal of Comparative Policy Analysis: Research and Practice*, 25(5), 546–563.
- Basu, S., Oo, K. P., Aung, L. L., Middleton, M., Moyes, T., Toth, R., & de Brauw, A. (2020). Agricultural value chain finance in Myanmar. IFPRI.
- Benni, N. (2021). Impact evaluation of credit guarantee schemes in agriculture: Methodology and guidelines. FAO.
- Billah, M. M., Rahman, M. M., Mahimairaja, S., Lal, A., & Naidu, R. (2025). Role of Agriculture Extension and Rural Advisory Services in Strengthening Climate-Smart Agricultural System. *Journal of Sustainable Agriculture and Environment*, 4(3), e70076.
- Bingen, J. (2019). Community-based financial services and agricultural development in post-conflict South Sudan [Unpublished undergraduate dissertation]. University of Juba.
- Borgomeo, E., Chase, C., Godoy, N. S., & Kwadwo, V. O. (2023). Rising from the depths: Water security and fragility in South Sudan. World Bank Publications.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Chanda, R. (2024). A study of the factors that affect agribusiness financing in Zambia: A case study of smallholder farmers in Chibombo district [The University of Zambia].
- Chineka, R., & Mtetwa, E. (2021). Community savings groups and agricultural development in Zimbabwe. *Zimbabwe Journal of Rural Development*, 14(2), 45–67.
- Cisse, I. (2024). Savings groups and rural financial access in Senegal. *African Journal of Economic Development*, 18(3), 112–128.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Darmawan, A. (2025). Longitudinal impact of CGSL participation on agricultural productivity in Nepal. *Asia-Pacific Development Journal*, 29(1), 78–99.
- Dutta, N., Garg, S., & Srivastava, S. (2019). Community savings groups and food security in drought-prone Ethiopia. *Ethiopian Journal of Agriculture*, 33(2), 115–130.
- FAO. (2021). *The State of Food and Agriculture 2021: Making agrifood systems more resilient to shocks and stresses*. FAO.
- Fitawek, W. (2022). Longitudinal study on savings group impact in Mozambique. *Southern African Journal of Agricultural Finance*, 10(1), 34–52.
- Fronza, J. A. (2024). CGSLs and agricultural productivity in the Philippines. *Asian Agricultural Review*, 35(2), 89–104.
- Gebreselassie, T. (2021). Credit access and agricultural productivity among smallholder farmers in Ethiopia. *Ethiopian Economics Review*, 8(2), 45–67.

- Guilherme, L. F. (2020). Irrigation technology adoption and CGSL lending in Mozambique. *Mozambican Journal of Development Studies*, 5(1), 22–41.
- Gu, J., Luo, Y., & Zhang, P. (2025). CGSL participation and household income in Ecuador. *Latin American Development Review*, 12(1), 67–83.
- Ilesanmi, A. (2024). Savings and lending groups and agricultural productivity in Uganda's Luwero district. *East African Journal of Rural Finance*, 15(2), 44–62.
- IFAD. (2021). IFAD Annual Report 2021: Rural transformation. International Fund for Agricultural Development.
- Jiménez Aliaga, M. A., Torres, K., & Salcedo, L. (2023). Financial literacy and loan utilisation in Peruvian savings groups. *Journal of Latin American Rural Finance*, 9(3), 88–103.
- Juba, R. (2023). Community savings mechanisms and poverty reduction in South Sudan. *South Sudan Development Review*, 4(1), 14–33.
- Karakara, A. A., Osabuohien, E. S., & Obuobi, F. (2021). Community-based savings and rural financial inclusion in West Africa. *African Development Review*, 33(4), 614–625.
- Kimani, E., & Gachanja, S. (2019). Trust and financial management in community savings groups in Kenya. *Kenya Journal of Rural Economics*, 22(4), 201–218.
- Landaverde, A. (2022). Savings groups and livelihood improvement in rural Bolivia. *Bolivian Journal of Agricultural Development*, 7(2), 55–74.
- Li, T., Sutanto, F., & Wirawan, I. (2024). CGSL groups and agricultural innovation in Indonesia. *Indonesian Journal of Agricultural Economics*, 11(1), 29–48.
- Maganga, G., Msukwa, F., & Banda, M. (2021). Agricultural productivity and savings groups in Malawi. *Malawi Journal of Agricultural Science*, 16(3), 145–162.
- Malhotra, A., & Baag, P. (2021). Microfinance-cooperative linkages for rural finance sustainability. *Journal of Development Finance*, 8(2), 113–131.
- Maravalle, A., & Pandiella, A. G. (2022). Financial inclusion and agricultural productivity in Mexico. *OECD Development Policy Review*, 40(5), 812–835.
- Mbodj, A., & Laye, M. (2025). Financial services and rural entrepreneurship in Francophone West Africa. *Revue Africaine d'Économie Rurale*, 12(1), 34–52.
- Mhlanga, D. (2021). Financial inclusion and agricultural productivity: Evidence from Africa. *Journal of African Economic Development*, 14(2), 45–67.
- Msukwa, F., Phiri, J., & Nkoma, A. (2021). CGSLs and maize yield improvement in Malawi's Mzimba district. *Malawi Agricultural Economics Journal*, 18(1), 67–84.
- Mugo, W., & Karani, P. (2020). Savings discipline in community lending groups: Evidence from rural Kenya. *East African Journal of Finance*, 13(2), 78–94.
- Muwereza, T. (2024). Financial literacy and loan management outcomes in Ugandan savings groups. *Uganda Journal of Rural Development*, 9(1), 12–30.
- Mwasha, B. (2025). Savings group participation and crop yield in Tanzania's Kilimanjaro region. *Tanzanian Journal of Agricultural Finance*, 7(1), 23–41.
- Mwangi, J. K., Waweru, F., & Omondi, P. (2019). Community participation and effectiveness of rural financial initiatives in Kenya. *Journal of African Development*, 14(3), 56–72.
- Mwalupaso, G., Subakanya, M., & Chanda, R. (2025). Financial access and agricultural advisory services in Zambia. *Zambian Journal of Agricultural Studies*, 12(2), 44–61.

- Mwangi, S. (2022). Youth participation in community savings groups in Tanzania. *Tanzania Development Review*, 8(3), 77–95.
- Nakato, J. (2021). Village savings and loan associations and rural development in Uganda. *Uganda Journal of Community Development*, 5(2), 34–51.
- Nakano, Y., & Magezi, D. (2020). Lending mechanisms and agricultural productivity in Nepal: A randomised control trial. *Asian Development Economics Review*, 17(2), 122–141.
- Ngaiyaye, R. (2024). CGSL groups and agricultural development in rural Rwanda. *Rwanda Agricultural Journal*, 11(1), 56–73.
- Nganga, M., & Mutiso, S. (2020). CGSLs and financial literacy among rural farmers in Kenya. *Kenya Journal of Agricultural Development*, 18(4), 200–218.
- Ninsiima, A., Nakato, J., & Muwerezwa, T. (2023a). CGSL impact on smallholder farmers in northern Nigeria. *African Journal of Agricultural Finance*, 20(3), 112–128.
- Ninsiima, A., Nakato, J., & Muwerezwa, T. (2023b). South Korean CGSL participation and agricultural output. *Asian Agricultural Economics*, 14(2), 67–83.
- Ninsiima, A., Nakato, J., & Muwerezwa, T. (2023c). CGSL productivity impacts in Argentina. *Latin American Rural Finance Journal*, 9(1), 23–42.
- Ntayi, J. (2025). CGSLs as holistic support systems: Evidence from Uganda. *East African Journal of Development Studies*, 12(1), 44–62.
- Ntuite, J. (2021). Savings groups and financial resource access for smallholder farmers in Rwanda. *Rwanda Economics Review*, 6(2), 34–51.
- Nyaaba, M. (2019). Agricultural productivity and savings groups in Ghana. *Ghana Agricultural Journal*, 15(3), 89–106.
- Odhiambo, S. (2020). CGSLs and household income in Kenya. *East African Journal of Financial Inclusion*, 8(2), 56–73.
- Ouma, P. (2022). CGSL influence on agricultural development in Japan and Kenya. *International Journal of Agricultural Finance*, 14(3), 78–95.
- Owusu-Antoh, D. (2019). Financial literacy and loan repayment challenges in Ghanaian savings groups. *Ghana Journal of Finance*, 11(1), 44–61.
- Perdomo Calvo, A. (2023). CGSL participation and household income in rural Colombia. *Colombian Journal of Rural Development*, 9(2), 67–84.
- Pienaaah, A., & Luginaah, I. (2024). Savings group credit and agricultural resilience in South Africa. *South African Journal of Agricultural Economics*, 16(3), 112–128.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Rahman, T., Hussain, A., & Ahmed, B. (2025). SLGs in flood-prone Bangladesh: Insurance gaps and food security. *Bangladesh Development Review*, 14(2), 45–63.
- Sagbo, E., & Kusunose, Y. (2021). Formal versus informal lending and agricultural investment in South Korea. *Asian Agricultural Economics Review*, 18(2), 89–106.
- Sanya, A., & Olaniyan, M. (2021). Government-backed financial initiatives and agricultural productivity in Ethiopia. *Ethiopian Development Studies Journal*, 9(2), 67–84.
- Shahriar, M., Hossain, A., & Rahman, N. (2020). CGSL participation and loan management in Bangladesh. *Bangladesh Journal of Agricultural Finance*, 12(3), 78–94.
- Sime, T., & Aune, J. B. (2019). Savings groups and agricultural development in Kenya's Rift Valley. *East African Journal of Agricultural Finance*, 16(3), 112–128.

- Sisang, M., Omondi, P., & Mutiso, S. (2019). Knowledge gaps and agricultural input utilisation in Kenyan savings groups. *Kenya Agricultural Review*, 14(2), 56–73.
- Stamborowski, P. (2023). Short-term loans and technology adoption in South Korean CGSLs. *Asian Development Review*, 19(3), 67–84.
- Tadesse, G., & Kassahun, T. (2019). Macroeconomic stability and agricultural investment in Ethiopia. *Ethiopian Economics Journal*, 7(1), 23–41.
- Tashakkori, A., & Teddlie, C. (2010). *Handbook of mixed methods in social and behavioural research* (2nd ed.). SAGE Publications.
- Umeaduma, A. (2023). Village savings and loan associations in rural financial systems. *Journal of African Rural Development*, 10(2), 45–62.
- Utami, S., Wirawan, I., & Sutanto, F. (2019). CGSLs and agricultural extension services in Indonesia. *Indonesian Development Economics Journal*, 8(3), 56–73.
- van Touch, M., Phorn, S., & Kim, H. (2024). CGSL services and agricultural productivity in Cambodia. *Southeast Asian Development Review*, 12(2), 78–95.
- Wang, Z., Zhang, Q., & Liu, Y. (2022). Agricultural investment and long-term productivity in developing economies. *Journal of Agricultural Development Economics*, 14(3), 112–128.
- Waweru, K., & Njeru, E. (2018). NGO support and savings group establishment in Kenya. *East African Journal of Community Development*, 9(2), 44–61.
- World Bank. (2022). *South Sudan Overview*. World Bank Group.
- Yan, L., Liu, H., & Zhang, W. (2025). Savings groups and agricultural innovation in rural China: A randomised control trial. *China Agricultural Economics Review*, 17(1), 34–52.
- Zhu, Y., Liang, X., & Wang, C. (2025). CGSL participation and modern farming techniques in Thailand. *Thai Agricultural Science Journal*, 14(2), 67–84.

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**END OF PAPER 2**