

Leveraging Cooperative Visibility for Sustainable Rural Development in Africa: Insights from Zambia

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Abstract: Rural populations in sub-Saharan Africa, despite occupying a large land area, face a form of pre-urbanization, with minimal engagement in the global economy disrupting their social structure. This fluid situation leads to a lack of cooperative visibility, hindering collaborative efforts. Development strategies often overlook this complexity, resulting in neglect and inefficiency. As current policies focus on micro-farming, they are primarily back capital-intensive agriculture, yielding limited benefits for smallholders. Consequently, rural development shifts to a service-oriented model, grappling with income and wealth disparities. Investment strategies enhance competitiveness in export-oriented value chains for large farms, while public investments in infrastructure and land expropriation can undermine local farmers. Although lessons from emerging economies could inform adaptive models, the unique aspects of local farming systems must be considered. Transitioning from unsustainable practices to cooperative visibility involves five interconnected levels of innovation. Recognizing these levels can reveal agricultural opportunities, especially in Zambia, and assess the broader potential of this approach across sub-Saharan Africa.

Keywords: Cooperative visibility, sustainable rural development, cooperative development, smallholder farmers, Zambian cooperatives.

Introduction

Rural development (RD) integrates social, economic, and environmental sustainability, reflecting a genuine process of improvement linked to growth and socio-qualitative relationships. It consists of three sustainability dimensions: social, economic, and environmental. Cooperative visibility (CV) ensures that rural cooperative members gain awareness and resources to access services, thereby avoiding exploitation by opportunistic providers. Cooperatives collaborate with service providers to integrate smallholder farmers into the agri-food value chain via technical assistance, training, and service access. Zambian farmer cooperative-controlled houses serve as fixed locations connecting members to service providers and the economy. Intermediate agents evaluate households' needs, assisting in selecting suitable services. Through these strategies, service delivery information enhances rural members' ability to assess reliability and relevance, focusing on service quality and benefits rather than just costs. Informed rural smallholders can protect themselves from exploitation, while CV helps them evaluate service price and quality. Evidence suggests that farmers gain confidence and success in negotiating contracts after engaging with agricultural organizations.

In Africa, many smallholder farmers belong to cooperatives. Although cooperative membership can offer opportunities to improve rural livelihoods and food security and to build a voice against exploitation by intermediary buyers, these voices tend to go unheard and have little impact when they reach the educational, economic, and political elite. The mounting gap in the levels of literacy, political participation, and bargaining power between elected representatives, elite NGOs, and the rural poor can be vast and ill-coordinated. Governments, donor agencies, and experts may not be privy to daily struggles. Governments' information and services tend to be delivered through national institutions without articulation to the poor (Somhlahlo et al., 2016). Through local elected representatives, rural intelligentsia have an interest in the amelioration of constituents' situations; however, it can also be argued that some rural elites undermine rather than reinforce access and legitimacy of government institutions.

This paper examines the concept of cooperative visibility and its key characteristics. The literature review is undertaken in two parts. First, the different concepts of visibility are discussed, followed by cooperative visibility which is then elaborated through key characteristics identified from the literature and contextualised in African cooperative practice.

The concept of visibility is not always readily associated with cooperative societies. Instead, it is often embraced in the context of a business marketing strategy, often referred to as brand visibility, which refers to how visible a business is in the marketplace (Francesconi & Wouterse, 2017). Brand visibility is composed of

loyalty and awareness. Loyalty is important to both established and newly formed businesses. When customers buy from, chat about, and share a company's content on social media, they are brand-loyal to that company. Awareness is where consumers have heard of or already know each brand. Frequency of brand mention on social media and search traffic are both affected by brand awareness, which is another concern for brand visibility (Somhlahllo et al., 2016).

For artisans and creatives, visibility includes platform visibility (a creator's prominence) and organic visibility (how audiences encounter their content). High organic visibility diminishes with elevated platform visibility, leading to fewer viewers for a creator's content; lower platform visibility is beneficial as it allows more people to engage with popular contents. Visibility means being spotlighted or recognized and contrasts with invisibility. It is the act of presenting something to be seen; without it, that presence is denied. While visibility can have multiple interpretations, in this study, it focuses on cooperatives' visibility in social, economic, and political contexts.

Rural cooperatives are groups of producers or entrepreneurs that collaborate in production, processing, and marketing to improve incomes and economic sustainability. The Cooperative culture framework guides rural development efforts. In Africa, these cooperatives operate within various structures, confronting challenges like illiteracy, capital shortages, and political interference. However, these challenges are essential for promoting a cooperative culture. Cooperatives play a crucial role in rural development by improving household incomes and nutrition and increasing production. They are voluntary associations that provide equitable access to essential goods and services, often rooted in local communities (Bühler et al. 2023). Cooperative Visibility involves collaborative efforts of members within legally recognized, effective co-ops that meet standards of accountability and transparency, usually managed by elected boards. Advocates seek legislative and cultural support to enhance cooperative operations and visibility, addressing resource distribution issues that affect development. This visibility is a complex, non-linear process influenced by social interactions and structural challenges, fostering new understandings and relationships among cooperatives. (Ng'ombe et al. 2025)

The Historical Context

Zambia, formerly Northern Rhodesia under British colonial rule, gained independence in 1964. It was seen as promising due to its vast natural resources and educated populace. The country had significant copper reserves and mining infrastructure, alongside agricultural potential hindered by poor transport and communication. The agricultural sector was mainly peasant-based, with a few private farms dominating the commercial sector. Copper represented 80% of exports, 25% of GDP, and 40% of government revenue. Post-independence, the government adopted development strategies focused on state economic direction, leading to nationalization of assets and the expansion of parastatals. (Resnick & Thurlow, 2008)

At independence Zambia's economy was growing; however, efforts to achieve economic growth quickly turned to a macroeconomic crisis. A deterioration in the balance of payments made the economy vulnerable, especially since there was increasing dependence on the copper sector. Economic troubles culminated in a total collapse of the economy during the 1980s. The economy collapsed with food riots in 1990. The economic situation in the early 1990s was dreadful as real GDP was declining, 40% of the population was malnourished, infant mortality was rising, and industry was collapsing. In the mid-to-late 1990s Zambia experienced some recovery from economic collapse. Efforts continued to liberalize the economy, but initial deregulation attempts led to new forms of state intervention. (Balla et al., 2021)

Rural Development in Africa

Achieving gender equality and empowering women is vital for sustainable development. Gender equality, the fifth of the 17 Sustainable Development Goals, aims to eliminate discrimination and violence against women and girls, end harmful practices, and provide access to health and reproductive rights. Attaining this goal requires changes across health, education, economy, and legal systems, alongside a reevaluation of power structures. Although there has been some progress, many development efforts overlook gender's crucial role. Improvements in economic growth, social services, or governance often affect women and men differently, as gender is frequently viewed as a compliance issue rather than integral to development performance.

Extensive evidence shows that women's economic empowerment can stimulate economic growth. In Africa, closing the gender gap in labor force participation could raise the continent's collective GDP significantly by 2025. Similarly, estimates find that achieving gender equality in labor force participation in Latin America and the Caribbean would increase GDP substantially, up to 5 percent of GDP in South Asia, and significantly in the rest of the world (Bühler et al., 2023). Expectations for divisions of labor, skills acquisition, and working conditions differ by gender in all societies, affecting men and women in various ways. Gender roles may reflect control of the means of production, thereby affecting the productivity of labor.

Current Challenges

Rural communities in Africa face critical challenges that hinder their competitiveness and sustainability, such as poor infrastructure, weak institutions, chronic poverty, and limited market access. Although these challenges are significant, they can be addressed through the establishment of rural cooperatives. By forming economic collectives, rural communities can engage in development more effectively. With visibility, training, and networks, these cooperatives can leverage their collective strength to advocate for their needs. Establishing primary cooperatives allows for capacity building in resource management, agricultural production, and marketing, ultimately promoting globalization in rural cooperation.

Realizing cooperative visibility requires a reconfiguration of the global, regional, and national cooperative interest with greater reliance on strong, consensus-driven primary cooperative organizations. If they are reformed, these organizations will not only democratize the cooperative movement within cooperative federations. They will constitute a far more effective instrument of influence and development at all levels (Ngosa, 2019). This process will redirect the cooperation of members in SACCOs to producers and lead to the establishment of agricultural cooperatives in commodity-based groups controlled by rural communities, well positioned to partner with new and existing SACCOs (Sikalumbi, 2021).

Leveraging cooperative visibility for rural development comprises the first initiatives of the Global Cooperative Development Strategy, aimed at realizing the recommendations made in the cooperative response to the UN GA Resolution on The Role of Cooperatives in Promoting Development in the Post-2015 Development Agenda. At the centre of the strategy is the notion that sustainable rural development at any level requires empowerment by cooperative visibility of rural communities and cooperatives. Cooperatives will not only engage in the supply of basic public goods through knowledge networks, but also as economic agents. They will democratise sustainable development by engaging in the provision of basic rights in agriculture, infrastructure, employment, and services in partnership with social movements and more powerful entities.

Opportunities for Growth

The world is changing rapidly, presenting new growth opportunities for cooperatives, particularly in Zambia's rural areas. Remarkably, resource acquisition actions by several countries in South and East Asia might stimulate agricultural growth and rural development for Zambians. This opens avenues for value chain players to join in enhancing food supplies to Zambia's expanding towns in its ten provinces. The Zambian government's pro-agriculture stance should improve the farming investment climate (Mwanza, 2022). Fortunately, the current political climate allows for discreet private investments, though access can be challenging due to limited information. The potential of domestic rural players is often underestimated, indicating that inclusive growth requires significant changes in approach, especially in Zambia's unique context.

Successful drivers of the proposed growth mechanisms will tend to benefit better off, larger-scale operators. Collective action to gain forward market access to their products has been identified as one such driver, and co-ops will have to embrace this challenge. Group opposition would be valuable to smooth the national policy environment, with its on-course inclusion of agriculture in rural development. After accepting that within the Zambian context, some players are likely to benefit better than others, it should be recognised that it is naive to assume this matter resolves itself in the long run. The present large disparities are not coincidental, and on a country basis, fertile drawn nations are often poorer partly because of foreign colonisation (Quan et al., 2006).

Reflection on Zambia

Zambia faces challenges in ensuring that its stakeholders, especially rural communities, can contribute to and benefit from cooperation. Since adopting a cooperation policy in 1982, the rural cooperative movement has grown, though membership declined in the 1990s due to increased competition from specialized, profit-driven enterprises. Despite this, many rural cooperatives continue to thrive, offering essential services to their members. These cooperatives vary in focus, serving different markets and operating for varied durations. They play a significant role in rural development by creating business opportunities and improving access to services sustainably. Overall, it evaluates the recognition and support required for cooperative visibility from rural stakeholders (Ngosa, 2019).

References have endorsed five cooperative principles guaranteeing cooperative visibility. A series of means, including organisational characteristics, actions, and observable evidence, are developed to assess cooperative visibility based on these principles. Rural cooperatives in Zambia differ in branding, agitation to recruit prospective members, and outreach efforts. All cooperatives undertake some actions to disseminate information about their existence and services to the members and the public. Examples include visible structures, printed materials, electronic media, sponsorship of rural events, university engagement, referrals by other members/partner institutions, and participation in agricultural shows. Many cooperatives promote their

image and services by having visible structures and taking advantage of electronic visibility. Nonetheless, cooperative visibility is frequently negatively impacted by a lack of supporting resources. (Mwanza, 2022)

Africa and Zambia's diverse climate and soil present significant agricultural development potential, but this is hampered by inadequate infrastructure and low investment. While agriculture contributes substantially to Zambia's GDP, most producers are small farms that lack government support (Sikalumbi, A. D., 2022). Small- and medium-scale farmers typically rely on cooperatives for infrastructure and services, but poor leadership has undermined their effectiveness, leading many to become self-serving entities. This study sought to identify ways to enhance cooperative viability and relevant strategies for scaling in Africa, involving interviews with leaders, members, service providers, and officials. The issue of small-farm invisibility has been explored in Zambia and beyond. (Mwale & Mwange, 2025) It is acknowledged that transformative cooperatives and market engagements require resource sharing among stakeholders. Information has been gathered by scholars and practitioners through reviews of Zambian sources and participatory workshops. Cooperatives, as member-manager partnerships, benefit from policy and technical support from government and NGOs. Most cooperative leaders understand the importance of cooperation in a competitive global landscape, though there is a need for renewed focus on potential risks and challenges. (N. Francesconi & Wouterse, 2017)

Impact of Visibility on Local Economies

Visibility reflects a community's presence, essential for fostering a sense of belonging. This aligns with an agrarian vision centered on community-based resource management with ethical boundaries against domination by a few. Such boundaries mitigate inequality, division, and conflict linked to mineral resources. In contrast, agrarian arrangements promote collaboration and unity, prioritizing community over individual interests. Group cooperatives play a vital role in alleviating poverty and promoting democratic, equitable development, enhancing cooperative visibility. Without this visibility, communities may appear unviable to external stakeholders, hindering crucial investment for rural development (Quan et al., 2006)

Co-operative visibility is achieved by establishing a cooperative umbrella organization in the districts in Zambia. These formal rural producer organizations, known as cooperatives, operate under an Act of Parliament. Each district's umbrella cooperative has branches in a secondary cooperative arrangement, ensuring inclusivity for the successful four commodities and fostering a vision for a second-tier cooperative (Sikalumbi, 2022). Uni-commodity cooperatives, due to their cultural acceptance, are more democratic than multi-commodity unions. Although members focus on separate commodities, they recognize that cooperation across them is essential for sustainability. These umbrella organizations present cooperatives as viable businesses, increasing financial visibility and market awareness, thus serving as a beacon of hope for development under mineral resource governance. (Mudenda, 2022)

Methodology

The study used a qualitative research approach, using a descriptive research design to describe the cooperative visibility in Zambia. Participatory observations were recorded between June 2024 and December 2024. This involved tracing efforts from the government and stakeholders in enhancing cooperative visibility for rural development. Internet and electricity accessibility were monitored in rural cooperatives to establish information accessibility and dissemination. To supplement the participatory observation, five cooperative union leaders and five government officials were sampled purposively and interviewed on cooperative visibility and its implication on cooperative performance in rural Zambia. Data was analysed thematically to draw conclusions.

Findings

The research shows that cooperative visibility legitimacy aids sustainable rural development in Zambia through participatory development and local engagement, fostering ownership and fair legitimacy distribution. This supports effective management and enhances subsidiary cooperatives via secretariats. Findings indicate that transparency and accountability in cooperatives, especially regarding cannabis seed inputs, strengthen visibility legitimacy. The study examines how collective agency in policy processes creates legitimacy through ownership and monitoring. As a qualitative multi-level case study, it emphasizes sustainability transitions and the significance of governance studies, identifying key factors for addressing local environmental challenges. Using qualitative triangulation, it analyzes governance processes and agency within extensive social systems. Future research should assess these governance factors' effectiveness in various contexts, highlighting cooperative actors' roles in transformative sustainability transitions.

Key Insights from Zambian Cooperatives

This section discusses insights from participatory observation of Zambian agro-processing cooperatives, highlighting hurdles affecting their visibility and commitments in rural development. It also identifies prospects

that can enhance cooperative visibility for sustainable rural development in Zambia and Africa (Chanda, 2024). Zambian agribusiness players emphasize the importance of collective marketing and pricing, which are currently lacking. Other areas like rural training, input supplies, and financial mobilization should be secondary, managed by private actors or monitored by the relevant ministry within inclusive policy networks. To pursue collective marketing successfully, preliminary interventions are necessary, aligning with the previously discussed marketing and pricing strategies.

The participatory observation reveals that cooperative players in Zambia recognize obstacles to visibility and commitments in rural development. These challenges, identified by various cooperative agribusiness stakeholders, arise from intense competition in areas such as electricity, infrastructure, technology supply, and new markets like mobile browsing and trendy agro-processing sales. Internet connectivity in rural areas where there are more cooperatives remains a challenge. Electricity is another challenge. Efforts by the Zambia Rural Electrification Authority (REA) to connect rural areas to the national grid has only yield up to 40% (REA, 2025). This means that 60% of homes are still struggling to access power. Loadshedding which is lack of electricity up to 17 hours in many parts of Zambia has affected the 40% connected, making the situation even worse. When the areas are loadshaded, the network and internet connectivity go down. This impedes efforts to enhance cooperative visibility in Zambia. Cooperatives face challenges to access and disseminate information in time to increase their visibility. Moreover, respondents highlighted the need to focus on harnessing prospects related to cooperative interests, which could inspire sustainable rural development not only in Zambia but across Africa.

To enhance the competitiveness and sustainability of Zambian cooperatives, stakeholders need to conduct more research and development focusing on unique local changes. Training effective human resources and clear vision execution need to be emphasized. This is relevant across Africa, where poor media representation has historically undermined cooperative policies, often seen as outdated concepts (Phiri, 2024). Additionally, current continent-wide efforts must collaboratively engage community resources and address landlessness, while developing effective policy monitors mindful of potential obstacles in the process (Francesconi & Wouterse, 2017)

Comparative Analysis with Other Regions

The Rural Insecurity Index shows Zambia at 66.3, the highest insecurity level, while Benin stands at 55.2, reflecting the lowest. Zambia faces significant civil and political insecurity alongside economic volatility. In the agricultural sectors, it ranks second in vulnerability with a 48.4 rating, driven by severe nutrition insecurities and civil unrest from unmet development goals. To enhance rural residents' livelihoods, it is crucial to understand their daily lives, expectations, social networks, and resource access, alongside the formal and informal rules governing them. Development initiatives are impeded by rigid public services and changes in philosophy or structure, hampering efforts to boost rural livelihoods. Local adaptations often sustain essential services, yet the public sector's diminished role in service continuity hinders local government shifts toward equity and accountability. (Agbahey et al., 2017)

Discussion

The African rural context is increasingly recognized as vital to the global economy, making rural development actors in various regions essential partners in global relationships. The homogeneity of rural conditions in many less developed countries suggests that insights from Africa could lead to a collective understanding of rural development. Beyond economic statistics, new analytical frameworks that incorporate globalization and sustainable development perspectives could yield innovative methodologies. Concerns have been raised over narrowly defining rural development in economic terms, emphasizing the need for greater conceptual clarity. Rural development should encompass advances in economic efficiency, equity, spatial cohesion, viability, and recognition of rural territories' uniqueness.

In Zambia, AFAD collaborated with rural cooperatives to engage in local development plans, which enhanced visibility for community concerns. A local farmer organization facilitated the recognition of these cooperatives, establishing their legitimacy within broader networks. Alongside advocacy campaigns, AFAD implemented a checklist for effective community development planning, supported by a trained budget monitoring team to promote transparency. Advocacy training improved understanding among Zambian farmer cooperatives of the importance of organized networks. However, cooperatives operate in a challenging political economy marked by commodity dependence and weak state institutions, which limits their visibility in rural development.

Many implications for policy also emerged. A shift in the understanding of the role of farmers' own organizations in society and their involvement in decision making processes is needed, as well as acceptance and recognition of the importance of advocacy processes for sustainable rural development. This calls for a

consistent model of cooperatives, stressing foresight ownership of the process, as opposed to technical implementation by externally recruited experts. It sets a twofold task foreffectively representing grassroots members at national and policy fora, and facilitating group organization and collective services among farmers in rural areas lacking basic infrastructures and inputs (Quan et al., 2006).

Implications for Policy Makers

The findings of this paper significantly impact policymakers in rural cooperatives and development practitioners in Africa, where cooperatives are increasingly responsible for community welfare. Policies are needed to encourage the establishment of new cooperatives and the adoption of participatory applications. To enhance community welfare, connections between cooperatives along the agricultural value chain must be fostered, moving beyond mere visibility of peasants. Transitioning to advanced cooperative visibility applications poses challenges in regions with low agricultural maturity. This study indicates that cooperatives can improve market information and farmer interactions, yet the processes are complicated by substantial distances and small branches across Zambia and Africa. Cooperation within the value chain is crucial for accessing agricultural grants, better fertilizer, and markets. However, the effectiveness of cooperative visibility applications is undermined by a lack of awareness and perceived complexity. Further research on visibility and ICT applications in and outside Zambia is essential to enhance understanding. Examining how governance and organizational capacity influence ICT implementation within cooperatives can provide valuable insights. Cross-national research is necessary to minimize biases in cooperative knowledge, as rural cooperatives in Africa have unique circumstances compared to those in developed nations, necessitating alternative theoretical frameworks and methodologies like farmer focus groups and field experiments (Quan et al., 2006)

Role of Technology in Enhancing Visibility

Visibilities are vital for sustaining cooperation by mitigating small changes without drastic behavioral shifts. In cooperative design, four concepts are essential: aggregate visibility, decomposition visibility, parameter visibility, and expectation visibility. The first two concepts promote incentive compatibility, ensuring adherence to design objectives, while the latter two enhance robustness against adaptability, countering minor action changes. Cooperative game theory highlights how visibility reliance fosters sustained cooperation among agents. This framework supports two design principles crucial for cooperative systems that leverage visibility for sustainability, showcased in real systems. Necessary conditions for cooperative behavior involve components of cooperatives and visibility-related factors. Conflicting designs create circular causalities that agents can exploit. The theory emphasizes visibility's role in maintaining design fidelity and collective control over processes and outcomes. Differentiating visibility levels and cooperative types create diverse design opportunities, leading to innovative methodologies. External agent visibility may boost cooperative resilience against threats. Exploring visibilities for sustainable cooperation offers a compelling avenue for future research in social and artificial systems. (Ssozi-Mugarura et al., 2015)

Strategies for Enhancing Cooperative Visibility

Supporting cooperative visibility is crucial for improving access to co-communitarian and co-products, which are vital for the emergence and sustainability of cooperatives. Policy interventions are needed to enable competition with the formal sector, while awareness campaigns are essential for synergistic development. National Government assistance should focus on growth enhancements. Cooperatives need to adopt modern information and communication technology to boost visibility, efficiency, market engagement, and governance. Regular training and collaboration on national and global scales among cooperatives must be encouraged, alongside forming trusts, unions, and associations under clear rules (Francesconi & Wouterse, 2017). Peer learning in production and marketing should be promoted, while participatory technology dissemination can enhance employability for members and youth. It is important to raise awareness about cooperative membership benefits to foster rural growth. Continuous backing from stakeholders strengthens cooperative visibility for sustainability. Stakeholders are urged to create networks that connect cooperative members and supporters to improve resource access, enhance viability and promote good governance. (Somhlahllo et al., 2016)

Effective rural development in Zambia faces challenges, particularly in engaging communities to discuss development opportunities and address their needs. Community engagement often revolves around social or environmental issues that unite members, allowing them to rethink their futures collectively for a sustainable outlook. Initiatives benefit various stakeholders, including development practitioners, NGOs, and policymakers, who interact with rural communities to introduce different rural development discourses. While large-scale interventions aim to meet some community needs, they may overlook educationally disadvantaged groups with social capital, leading to disparities in development opportunities. This divide fosters tensions between those with resources and voice and those without. Moreover, the influx of outside ideas complicates matters for locals,

potentially increasing knowledge gaps and misunderstandings about projects, with governance issues rising alongside. As scale increases, so do concerns regarding equity, voice in decision-making, and cultural safety. Therefore, Zambia requires a clear pathway to more scalable community engagement approaches for sustainable rural development. (Chunda. Mwango, 2004)

Partnerships with NGOs and Government

Connecting with civil society organizations through information exchange fosters ownership of community activities and equitable stakeholder engagement in decision-making. NGOs in Zambia engage with policy documents to enhance civic understanding and dialogue with policymakers. Diverse networks, including women's organizations, advocate for local development planning, project prioritization, and budget considerations, improving local government oversight through community newsletters and radio programs. However, these efforts face challenges due to competing governance demands. Some local representatives are selected along political party lines rather than through representative groupings. Active civil society engagement with policy documents leads to better policy comprehension among decision-makers, highlighting the necessity of political will for policy success. Civil society, academia, and professional organizations must pursue policy interaction, understand the landscape, negotiate access, and work towards shared goals. Academia has engaged in policy processes, initiating polls and collaboratively advocating with politicians. Professional organizations contribute technical expertise, promoting academic engagement and awareness. Yet, access often favors well-resourced entities, sidelining less resourceful organizations, while academia risks co-optation by government agencies, limiting responsiveness to political issues. (Hushie, 2016)

Sustainability and Long-term Impact

The LPG stove project has thrived post-closure, transitioning from solar/sand stoves to LPG thanks to favorable vendor contracts and VAT tax relief. After a successful pilot in Lusaka, it adapted for sustainability in the Ngoni region. Members of savings and credit cooperatives (SACCOs) engaged in the LPG initiative, focusing on risk assessment, community engagement, loan procurement, and recruiting skilled women for stove production. These women received at least three hours of training on production and teamwork. Initially, sixteen women were to get loans for machines, but only seven cooperatives managed production due to different skillsets, while others prioritized marketing and securing loans. The visibility of cooperatives was vital for the LPG program's success, driven by demand for quality, eco-friendly stoves. Challenges arose in production, and delays between 2012 and 2014 hindered the LPG design launch. Marketing was tough as production was linked to individual cooperators, restricting promotion. Nonetheless, the cooperatives' regional presence allowed for a new marketing consortium to promote stove initiatives collectively (Díaz and Betina2025)

Not all rural development programs are the same. They often differ in terms of program structure, targeted livelihood, and desired effects. While this presents challenges for comparison in overall program performance, it is the stated desired effects of rural development programs that highlight the general path to program success, similar undercurrents of failure, and subsequently a universal measuring stick of success for rural development programs that target livelihoods. These goals are to enhance productivity to maintain a local population's livelihood in the face of change, government policy, or new pressures. Thereby maintaining household and food security and offering potential additional income sources while utilizing natural resources wisely and sustainably (Kenneth Olson, 2007). Despite the general fervor in Europe or North America and awareness of features suited to these areas for rural development policies enhancing sustainable development and quality of life in rural areas, at local levels rural development programs meant to achieve those objectives do not always live up to expectations.

Lessons Learned from Zambia

The lessons learned from the case of Zambia on adaptive natural resource governance and cooperative visibility relate as follows. Zambia's long history of cooperative visibility allowed for the emergence of both productive economic and constructive political capacities at multiple levels. This cooperative visibility allowed farmer groups and cooperatives to adaptively shape the natural resource governance changes brought about by the political and economic liberalization that transpired after 1990.

The liberalization in Zambian agriculture posed threats to smallholder welfare, particularly in the bean trade. Farmer groups and cooperatives leveraged existing cooperative visibility to advocate for their members. Their political capacity and knowledge of the bean seed system enabled them to reshape visible bean contracts. This positioning allowed farmer-led organizations to redefine trade terms that once favored the state and its grain reserves. After securing political contracts for visibility, farmers successfully negotiated economic contracts, making their visibility more productive (Kenneth Olson, 2007)

This question of the role of visible cooperatives, farmer groups and other forms of collective organization in agricultural development is an important one, as the description of this case alerts one to other possible systems of visibility that do not markedly appear to be cooperative. This case of bean seed contracts suggests that cases of cooperative visibility can be broader than cooperatives and farmer organizations. Cases that include embedded cooperative organizations in more informal trader networks or other assembling devices such as ascribed kinship ties may provide visible mechanisms for collective negotiation with external actors, whilst presenting new avenues for the accidental release of predation (Dumitru et al., 2023)

Challenges and Limitations

The Sustainable Development Goals (SDG) agenda for 2030 emphasizes agriculture, food security, and prosperity. Cooperatives offer an alternative to agribusiness-led commercialization, being owned and controlled by producers and consumers. However, female-headed households are less involved in cooperatives, which are often poorly implemented. Local actors play a crucial role in promoting inclusive cooperative governance, yet efforts by local and global stakeholders to support cooperatives remain limited (Somhlahlo et al., 2016)

Improving access to finance is crucial for agricultural growth in Zambia, but the cooperative movement remains weak with low membership. Challenges include market access, governance issues, provision of financial services for low-income members, leadership capacity, and incentives for development. Possible solutions are enhancing cooperative registration, strengthening federations, promoting collective marketing, and creating grassroots mini banks (Quan et al., 2006)

Effective cooperative movement is crucial for the success of rural poverty alleviation programs. The sustainability of rural development relies on organized participation from beneficiaries. Non-members, less organized, have little risks but can gain from free riding instead of joining cooperatives. Understanding drivers of rural collective action is essential. While procedural justice has been examined, behavioral justice needs more attention. Qualitative studies on region-specific agricultural societies and preferences present valuable research opportunities.

Barriers to Implementation

The proposed infrastructure for data accessibility in Zambia needs substantial investments in internet connectivity, particularly in rural areas that remain largely disconnected. Barriers such as inadequate infrastructure and documented technical issues challenge investment and technology uptake. The ICT landscape is complex and fragmented, with limited digital knowledge and low literacy rates among rural citizens. Community-level technology initiatives face hurdles due to a lack of skilled technicians for maintenance and security. Additionally, many communities struggle to effectively use social media for communication. Local activist groups may also push negative narratives about government actions, which can be met with skepticism or repression, further hindering effective use (Malambo et al. 2023)

The gap between need and capability poses ongoing challenges for development actors. Linking community data with global stakeholders could be difficult, and effective communication of issues may remain problematic (Kasalu and Kabubi, 2025). Scaling and replicating suitable solutions will necessitate locally contextualized designs and processes that address the needs of collective action groups in the near term. Supporting increased agencies involves acknowledging slower change rates as rural groups enhance their visibility and connectivity. Designers may have to balance facilitation with direct support for framing issues, networking, and articulating problems (Ssozi-Mugarura et al., 2015)

Future Research Directions

This research explores the multidimensional nature of cooperative visibility and its critical role in rural sustainable development. As the global population grows, many rural areas remain sparsely populated, making cooperative visibility vital for development. The study investigates the relationship between cooperative visibility and sustainable rural development in a developing country. It clarifies the definition of cooperative visibility, which includes web, media, attitude, dimensional, and collective aspects, supported by evidence showing its validity (Quan et al., 2006). This includes examining the mind, vegetation, and disaffection components linked to rural sustainable development. The research highlights how improving cooperative visibility can enhance cooperativeness in rural areas. The findings also provide a new measurement scale for tracking cooperative visibility disparities in various regions while assisting rural managers and policymakers in identifying development challenges (Somhlahlo et al., 2016).

Conclusion and Recommendations

Co-operative visibility refers to a co-operative organization's ability to operate transparently for the benefit of its members and achieve its goals, thereby contributing to sustainability. Key factors for this model's

success include equitable representation, proper resourcing, and a suitable organizational culture. However, potential drawbacks include the risk of prioritizing equity over efficiency, possibly excluding some members, and the threat of information overload. The model's application in transitioning cooperatives from social purpose entities to fully participatory organizations is also discussed.

Co-operatives aim to develop their members while providing goods and services. Documentary evidence of the developmental lifecycle and decision-making in cooperatives guides an effective approach to this challenge. The benefits of co-operative visibility are examined, emphasizing transparency, accountability, and equitable access to needs identification and service delivery. These factors foster mobilization of mutual resources and active member participation, reinforcing cooperative and democratic values. Cooperative visibility enables meaningful participation from all members in determining needs, prioritizing services, and evaluating delivery by the cooperative or contracted providers.

The study recommends the need to strengthen visibility through investing in technology in Africa. This will require expanding the ICT infrastructure to improve cooperative data access and communication. Further, there is a need to provide regular training in ICT, governance and cooperative marketing. Promotions should be run to enable digital inclusion as a strategic development goal. The use of social and traditional media to raise public awareness of cooperatives is critical.

Besides, policy and institutional support is another critical recommendation from this study. Policies need to be reformed to formally recognize cooperatives in rural development in Africa. This requires collaboration among line ministries, NGOs and civil society to build inclusive frameworks for women and youth leadership in cooperatives. Policy networks with grassroots representation should be created.

Additionally, there is a need to foster sustainable cooperative models that will support cooperative trusts, unions, and federations for resources sharing. The sustainable model should promote participatory technology dissemination to increase rural employment. This will require adopting adaptive governance models tailored to local contexts in Africa. To support this, it will require investing in continuous research to refine cooperative strategies in Africa.

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