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KNOWLEDGE CO-PRODUCTION: NURTURING GRASSROOTS INNOVATIONS WITHIN ENVIRONMENTS OF SCARCITY. THE CASE OF COMMUNITY CURRENCY IN KISUMU, KENYA

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Abstract:
Although grassroots innovations often emerge in contexts of scarcity, they rarely fulfil the purposes that originally prompted their inception. Limited local capacity to nurture and protect such initiatives can create opportunities for 'elite capture' by more privileged and resourceful actors. This paper brings together two seemingly antagonistic concepts—'elite capture' and 'knowledge co-production'—to inform the introduction and implementation of a community currency as a grassroots innovation in Kisumu. It draws on experiences and lessons learnt from similar initiatives in Mombasa and Nairobi, and applies the principles of knowledge co-production to prevent 'elite capture' in Kisumu. The inclusive nature of the knowledge co-production approach—accommodating relevant stakeholders and their diverse interests—its goal-oriented focus, and its emphasis on effective collaborative engagement, combined with the flexibility to allow iterative processes, are employed to safeguard the interests of the most deserving local participants. The paper advances understanding of knowledge co-production and demonstrates its application in facilitating constructive engagement and stakeholder participation to prevent 'elite capture'. Together, these elements help to ensure local ownership and management of innovations by their intended beneficiaries, thereby strengthening local support mechanisms and empowering the community.

Keywords: grassroots, innovation, community currency, elite capture, knowledge co-production

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1. Introduction

Over one-third of the urban population in the developing world lives in informal settlements (Arimah, 2012), often characterised by inadequate basic facilities (Hardoy *et al.*, 2001). This reality compels residents, out of necessity, to initiate their own processes to narrow gaps in basic service provision (Gutberlet *et al.*, 2016). Situations of extreme scarcity frequently stimulate entrepreneurial and innovative responses (Holston, 2009), fostering the capacity to address one's own challenges—even among underprivileged and disempowered individuals with limited resources and exposed to unfavourable political and legal environments (Linna, 2013). The poor can also be innovative (Gupta, 2012), and every individual has the capacity to develop solutions to the problems they face on a daily basis (Gupta *et al.*, 2003) by using the resources available to them. Such processes create space for the emergence and nurturing of grassroots innovations (Zapata Campos *et al.*, 2023). Grassroots innovation has the potential to promote inclusive development by extending benefits to poor and marginalised segments of society (Hall *et al.*, 2012). In this paper, it is embraced as a tool for addressing issues affecting the poor (Ramdorai & Herstatt, 2015) and for enabling local communities to develop new ideas and solutions in contexts of scarcity, thereby challenging conventional interventions (Smith *et al.*, 2017).

Within informal settlements, where access to basic facilities is limited (Gilbert, 2007), low-income residents often organise themselves to develop and strengthen institutions, mechanisms and capacities that enhance resilience (Zapata Campos *et al.*, 2019). These efforts result in frugal practices that form the initial stages and foundations for the emergence of grassroots innovations. In Kisumu City, Kenya, with an estimated population of 500,000—approximately 60 per cent of whom live in informal settlements (County Government of Kisumu, 2023; Gilbert, 2007)— low-income residents organise themselves into youth groups, women's groups, self-help groups, residents' associations and community-based organisations to participate in basic service provision (Ostrom, 1996) and create livelihood opportunities (Barinaga *et al.*, 2019). Of particular interest is how they mobilise local resources and design governance structures and strategies to sustain innovative initiatives such as table banking, community welfare and co-operative groups, and, more recently, community currencies. The latter is presented in this paper as an innovative grassroots initiative that promotes inclusive economic growth within informal settlements (Zapata Campos *et al.*, 2019; Zapata Campos *et al.*, 2022) through the mobilisation of low-income residents and traders and the creation of local networks. Grassroots innovations, therefore, hold significant potential to address unmet and neglected needs, contributing to poverty reduction by promoting local productivity and entrepreneurship (Kaplinsky, 2011).

Despite their potential benefits, the economic performance of grassroots innovations is often uncertain in their initial stages (Smith *et al.*, 2014), making them less attractive to policymakers and scholars (Pansera & Sarkar, 2016; Seyfang *et al.*, 2010). As a result, they may stagnate or remain ineffective. Popular approaches such as

participatory development and corporate social responsibility are frequently presented as offering broader societal benefits; however, they have also been criticised for enabling elite capture of grassroots initiatives, disadvantaging the most deserving groups (Jens & Moeko, 2013). Grassroots innovations therefore appear vulnerable to suppression or capture by elites, perpetuating the marginalisation of the same poor segments of society they are intended to support.

To examine ways of nurturing grassroots innovations from their emergence through growth and development to benefit the most deserving local residents, this paper addresses the following questions: how does the 'poor segment of society' lose control of its valuable innovative initiatives? How can these initiatives be protected and nurtured to maturity without losing their original focus on addressing local livelihood challenges? The paper explores these questions by tracing the introduction and adoption of community currencies as a grassroots financial innovation in Kisumu, drawing on experiences from similar initiatives in Nairobi and Mombasa. Principles of knowledge co-production are employed to guide implementation processes and to engage with challenges that may impede the introduction, growth and sustainability of community currencies in Kisumu. Community currencies are locally created tokens designed as media of exchange for goods and services to supplement the national currency (Zeller, 2020), particularly in urban informal settlements where the circulation of national currency is limited (Barinaga *et al.*, 2019). The paper demonstrates how such innovative grassroots initiatives can be nurtured to realise their overarching objective of improving local livelihoods, without being captured or suppressed by elites—defined here as privileged individuals or institutions with disproportionate influence or control over resources.

2. Methodology

This paper focuses on the cities of Nairobi and Mombasa in Kenya, drawing on their experiences and lessons with community currencies to inform the case of Kisumu. It employed a multiple case study design, incorporating elements of action research to enable an in-depth examination of the use of community currencies in Mombasa and Nairobi (Yin, 2018). This approach facilitated a nuanced understanding of the experiences, perspectives and views of users in the two cities, thereby informing adaptation strategies for Kisumu. Action research allows for iterative cycles of reflection and action based on real-time feedback (McNiff and Whitehead, 2011), making it particularly suitable for knowledge co-production and the development of a community currency in Kisumu for the benefit of its users.

Data were collected through in-depth interviews, focus group discussions (FGDs) and field observations of community currency activities in the respective regions. The study began with exploratory fieldwork in Mombasa (within the settlements of Bangla, Kwa Ng'ombe, Miyani and Takaungu) and Nairobi (within the settlements of Kangemi, Kibera and Kawangware) in September and November 2019, respectively. A total of 11

in-depth interviews and four FGDs were conducted with users and key stakeholders during this phase.

A kick-off workshop was organised in November 2019 to introduce and discuss the project with stakeholders from different sectors and to initiate the development of a community currency in the Kisumu region. The workshop was attended by representatives from NGOs and development agencies in Kenya, government officials at both national and county levels, prospective users from Kisumu, experienced community currency users from Mombasa and Nairobi, and researchers from Kenya, Sweden and Denmark.

Follow-up fieldwork was conducted by both authors in Mombasa and Nairobi in December 2020 and August 2021, during which 11 additional in-depth interviews and two FGDs were carried out. The total duration of data collection amounted to five weeks: two weeks for exploratory fieldwork and three weeks for follow-up fieldwork. Meanwhile, the implementation (creation and use) of the community currency in the Kisumu region was ongoing from November 2019 to 2022. This process was guided by insights from Nairobi and Mombasa and overseen by a technical committee in Kisumu. The committee comprised leaders of community currency user groups in Kisumu, government officials, politicians and members of the research team. Monthly technical committee meetings were held to deliberate on emerging issues and to agree on contextually appropriate strategies for the users.

Data analysis involved the transcription of interviews, FGDs and field notes, followed by coding, thematic analysis and triangulation to identify patterns and themes. Interpretation entailed linking the findings to the research questions and the relevant literature (Braun & Clarke, 2006; Creswell & Poth, 2018).

3. The concept of elite capture

As an analytical framework, this paper brings together two seemingly antagonistic concepts: the 'elite capture' of grassroots innovations and 'knowledge co-production' as a means of addressing it. It examines the meaning of elite capture, the conditions under which it may arise, and the ways in which knowledge co-production processes can respond to and mitigate such risks.

The concept of 'elite capture' is rooted in elite theory, which explains power relations within society and how elites maintain dominance and influence over resources, institutions and decision-making processes (Mosca, 1939; Pareto, 1935). Elites are typically characterised by their privileged access to, and control over, key resources, productive assets, institutions and governance processes (DiCaprio, 2012). This position enables them to initiate and sustain elite capture by influencing decisions on resource allocation, setting priorities, shaping public opinion and defining community needs (Mansuri & Rao, 2013) in ways that serve their own interests rather than those of the wider community (Platteau, 2004).

Elite capture refers to situations in which privileged individuals or groups appropriate resources, decision-making processes or initiatives intended to benefit marginalised populations for personal gain. In development studies, the concept has frequently been applied in the context of resource allocation and community-driven initiatives, highlighting how elites may exploit their positions of influence to manipulate resources or redirect community projects to their advantage (Bardhan & Mookherjee, 2006). Even within decentralised governance systems—often promoted as mechanisms for enhancing participation and empowering local communities (World Bank, 2004; Fritzen, 2007)—the risk of elite capture persists. Democratisation alone is insufficient to prevent such outcomes (Musgrave & Wong, 2016). Rather, the design and effective functioning of appropriate institutional structures are crucial in reducing opportunities for elite capture within development processes (Persha and Andersson, 2014).

In the context of grassroots initiatives, elite capture occurs when elites dominate decision-making processes that shape the emergence and/or growth of such initiatives, steering them in directions that favour their own interests at the expense of the more deserving local community (Jens & Moeko, 2013).

3.1 Grassroots innovations and elite capture

Grassroots innovations take different forms, including products, technologies and services developed in and for resource-constrained environments to enhance resource utilisation and improve livelihoods (Zeschky *et al.*, 2014). They may also consist of ideas or interventions emerging from local community groups, neighbours and activists working collaboratively to generate solutions in response to their needs and challenges (Seyfang *et al.*, 2010). Such initiatives foster locally embedded forms of innovation, promoting ownership and acceptance of solutions developed by the community itself (Gupta *et al.*, 2003; Smith *et al.*, 2014). In doing so, they challenge the conventional assumption that resource-intensive processes and large budgets are prerequisites for innovation and development (Kaplinsky, 2011).

Although grassroots innovations often begin as frugal initiatives, they have the potential to evolve into more sophisticated systems capable of serving a broader population. However, local communities may lose control over processes that are critical to the growth and sustainability of such valuable initiatives (Pansera & Owen, 2017), particularly where individuals with higher social status and greater influence assume control or exploit them. The origins of grassroots innovation are commonly framed as *'innovations for the poor'*, *'innovations by the poor'*, and *'co-creation with the poor'* (Prahalad, 2006). While the latter connects with the first two, it advances a governance-driven perspective that may disproportionately benefit formal economic actors and exacerbate existing social inequalities (Tesfaye & Fougère, 2021). Addressing the unintended consequences of co-creation and similar engagements requires deliberate interventions, including stronger mobilisation and the active involvement of policymakers to safeguard the interests of the poor in the distribution of benefits arising from such innovations (Meagher, 2018). Moreover, prioritising entrepreneurial and market-based approaches to

poverty alleviation, rather than welfare-oriented interventions, may further intensify inequalities (Varman *et al.*, 2012).

Participatory processes themselves may be vulnerable to elite capture in contexts characterised by unequal power relations (Abraham & Platteau, 2004; Rigon, 2014), and may also impose additional burdens on the poor (Fuest, 2005; Mansuri & Rao, 2004). Vigilance is therefore necessary, as the risk of exploitation or loss of control over valuable local initiatives is often overlooked—particularly when such initiatives are framed through popular discourses of philanthropy, corporate social responsibility (CSR), and business-oriented multi-stakeholder partnerships (Meagher, 2018). These approaches can legitimise corporate activities in contexts where they might otherwise encounter resistance (Böhm & Brei, 2008; Moog *et al.*, 2015). Consequently, avenues for protecting innovations intended for the poor remain limited (Meagher, 2018), unless elites choose to act in genuinely benevolent ways (Jens & Moeko, 2013).

3.2 Knowledge co-production and elite capture

Knowledge co-production is a process through which technical experts and other interested groups come together, bringing diverse perspectives and analytical approaches, to generate new knowledge and technologies (Christenson, 2013). In its broader sense, it encompasses co-creation and co-design (Simon *et al.*, 2020), underscoring its relevance across all stages of a project. Four general principles associated with high-quality knowledge co-production are that it is context-based, pluralistic, goal-oriented and interactive (Albert *et al.*, 2020). In sustainability research, it is described as an iterative and collaborative process that produces context-specific knowledge and pathways towards a sustainable future, emphasising inclusivity and deliberative negotiation as preconditions for collective progress (Simon, Palmer, *et al.*, 2018), and for improving both outcomes and their legitimacy (Anderson *et al.*, 2013).

Given its diverse conceptualisations, knowledge co-production can serve as a mechanism for identifying and moderating situations in which valuable grassroots initiatives are vulnerable to elite capture, while sustaining momentum towards their intended goals. Its versatility is reflected in descriptions from different urban contexts, where it is understood as: a process that enables knowledge from different backgrounds to work together; the highest expression of mature relationships between researchers and practitioners; a social learning process for all participants; a space for learning and exchange of ideas to generate solutions; and a process without a fixed master plan, evolving progressively in response to partners' needs, emerging findings and changing contexts (Palmer & Walasek, 2016). What these interpretations share is a strong emphasis on learning, reflection, adaptation and the creation of new ways of relating and working together.

Knowledge co-production therefore encompasses three progressive stages of a project (Figure 1): problem definition, the design of appropriate methodologies, and research implementation (Simon *et al.*, 2020). Drawing on the principles outlined by Albert *et al.* (2020), and on the framing of grassroots innovations as mechanisms for

community empowerment and the development of new solutions (Quistgaard & Villadsen, 2020; Smith *et al.*, 2014), this paper traces the process of introducing a new community currency scheme in Kisumu, Kenya. It demonstrates how a knowledge co-production approach can help prevent elite capture during the emergence and development of community currency as a grassroots innovation intended to benefit the local community.

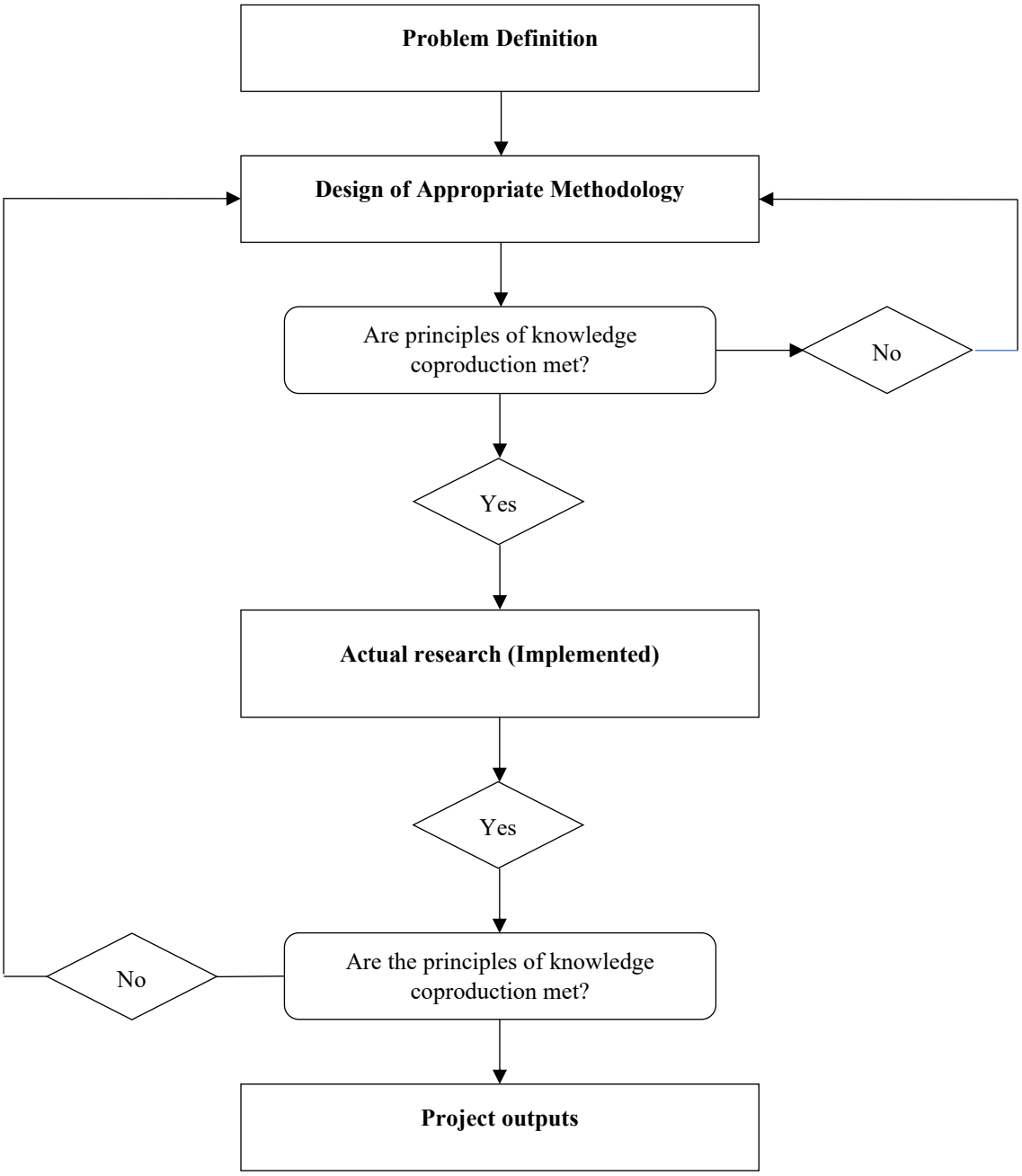

Figure 1: Knowledge co-production process

Figure 1 shows the process of knowledge co-production as used to guide the project activities. The iterative processes enabled flexibility, reflections and continuous

review of project activities as per the principles of knowledge co-production, to situate the processes within the context of Kisumu (Albert *et al.*, 2020) and to keep them focused on the project's goals.

3.3 Experience with community currency in Mombasa and Nairobi

The development of community currencies in Kenya began in 2010, when the NGO Grassroots Economic Foundation (GEF) conceived the idea of a convertible complementary currency, Eco-Pesa, to enhance environmental sustainability and improve economic conditions in the informal Kongowea market in Mombasa (Ruddick, 2011). Eco-Pesa was used to purchase goods and services among users, or to convert into Kenya Shillings (KES) at a 1:1 rate against a KES reserve made available by donors.

In 2013, GEF launched Bangla-Pesa, a printed community currency designed for use within Bangladesh informal settlement in Mombasa. Bangla-Pesa differed from the earlier Eco-Pesa in that it was a mutual credit currency backed by the goods and services that community members offered one another (Ruddick *et al.*, 2015). Bangla-Pesa became the subject of a court case, which ultimately ended in favour of its proponents. One former leader from Bangladesh informal settlement, who had also been arrested, remarked during an interview: *"…they arrested us in 2013 with serious charges, as the government did not know what a community currency was."*

Following the court case, the community currency initiative was revitalised and replicated in other communities, adopting the names of those localities (Dissaux, 2015). These included Miyani-Pesa and Ng'ombeni-Pesa, as well as expansion into Nairobi's informal settlements of Kawangware and Kibera, where currencies were introduced under names such as Gatina-Pesa, Kawangware-Pesa and Lindi-Pesa.

To address challenges related to the high costs of printing vouchers, difficulties in trading across different currencies, and governance concerns, GEF adopted Blockchain technology (Barinaga, 2020; Mattsson *et al.*, 2022). This led to the creation of Sarafu cryptocurrencies, designed using the Bancor blockchain model to enable cross-cryptocurrency transactions among the various monetary units already in circulation.

Towards the end of 2019, the Kenya Red Cross Society (KRCS), an international humanitarian organisation, partnered with GEF to integrate its cash transfer programmes into the Sarafu community cryptocurrency network. The aim was to support cash-constrained communities in strengthening their local economies. The innovation was viewed as offering the Red Cross a significant technological opportunity to distribute part of the USD 1 billion allocated annually to its global cash transfer programme (Bornstein, 2019), thereby improving the efficiency and effectiveness of development aid delivery to vulnerable populations. Donor funds in fiat currencies were made available to beneficiaries through the direct conversion of Sarafu, which was issued as initial tokens upon registration and subsequently earned through economic exchanges, in accordance with procedures and rules established by GEF (Barinaga, 2020).

When direct cash withdrawals ceased, local vendors were identified by GEF and contracted to supply specified quantities of food items to community groups (*chamas*).

The chamas paid the respective vendors in Sarafu, after which the vendors returned the Sarafu to GEF in exchange for KES.

3.4 Design and contextualizing of community currency in Kisumu

The community currency initiative in Kisumu, Kenya, was established on the understanding that such innovative grassroots initiatives should be owned, managed and nurtured by the local community for its own benefit. In implementing the community currency in Kisumu, reference was made to experiences from Mombasa and Nairobi. Situations that might discourage progress, delay implementation or cause the local community to lose control over the management of their currency were identified and addressed through alternative approaches.

Simon *et al.* (2020), in *Comparative Urban Research from Theory to Practice*, outline various ways in which projects with similar thematic focuses, but situated in different contexts, may be compared to enhance learning and knowledge development. Three relevant comparative approaches discussed are: local projects replicated (Smit *et al.*, 2020), local projects retrofitted (Oloko & Ness, 2020), and internationally initiated projects with local co-production (Valencia *et al.*, 2020).

As initially conceived, the Kisumu project drew explicitly on experiences with community currencies in Mombasa and Nairobi, making it largely a case of 'local projects replicated', with the intention of adopting key features of the existing monetary design models. However, during implementation—and in consideration of the specific context of Kisumu, as well as the principles of knowledge co-production—the approach evolved into one more closely aligned with 'local projects retrofitted'. Rather than transferring the model wholesale, comparative insights were selectively adapted to incorporate only those elements likely to strengthen the initiative in Kisumu.

Consequently, the design of the community currency in Kisumu differs from those in Mombasa and Nairobi in several respects, including governance structures, management arrangements, technological choices, and engagement with existing policy and regulatory frameworks. These adaptations were intended to ensure stronger local control over project activities (Simon, Palmer, *et al.*, 2018) and to minimise the risk of elite capture. The implementation process was therefore deliberately distinctive, recognising diverse ways of knowing and doing, and prioritising active engagement and interaction among all partners and stakeholders. In line with the principles of knowledge co-production, space was created for iterative and collaborative processes of reflection, reassessment and adjustment at every stage of the project (Albert *et al.*, 2020).

3.5 Governance and management of community currency

Governance refers to the system through which an organisation makes and implements decisions in order to fulfil its mandate. It defines how decisions are made and identifies the actors involved in those processes. In such systems, actors with greater influence often have the capacity to shape decisions in ways that serve their own interests, potentially disadvantaging others.

In the case of community currencies as implemented in Mombasa and Nairobi, the principal actors included GEF, community members/users, community groups (chamas), agents/vendors, and field officers. Grassroots Economics Foundation (GEF) was the driving force behind the introduction of community currencies in both cities. It was responsible for establishing the rules governing their design and use by local communities, as well as for forming partnerships with other organisations, such as the Kenya Red Cross Society.

3.5.1 Agents

Agents were business actors contracted by GEF to assist users who held community currency but required conversion into the national currency (KES). Acting on behalf of GEF, the agents received community currency from users and converted it into KES, charging a commission for this service (Kiaka *et al.*, 2024).

3.5.2 Vendors

Vendors were entrepreneurs who entered into agreements with GEF to sell their goods to users in exchange for community currency, primarily through community groups (chamas). Rather than circulating the community currency within the network by purchasing goods and services from other users, many vendors accumulated it with the intention of cashing out into KES.

3.5.3 Field officers

Field officers served as the link between GEF, the chamas and individual users. As employees of GEF, they acted as key communication channels, conveying information to stakeholders and relaying feedback to the organisation.

3.6 Supportive technology and infrastructure

The initial intention of the project was to use and adapt the Sarafu cryptocurrencies designed on the basis of the Bancor blockchain model. GEF was responsible for making all necessary arrangements, including user registration and training. The Sarafu cryptocurrencies were created, owned, configured and managed by GEF. As observed during field visits to Mombasa and Nairobi, all technical decisions and support—such as the setting of credit limits—were centrally managed from the GEF office.

3.7 Politicians and government officials

Knowledge co-production requires a neutral platform where all stakeholders can present and discuss ideas, and propose solutions freely, without undue influence from individual or organisational interests. The concept of a community currency was new in Kisumu and was perceived differently by various actors. During the exploratory research activities, the risk of politicisation by politicians and government officials was identified as a potential concern. To mitigate this risk, participants emphasised the importance of education, sensitisation and the active involvement of local government officers in the

currency schemes. There was also a preference for a digital currency, which residents could more readily adopt, as it would function in a manner similar to Safaricom's M-Pesa and Bonga Points. Experiences from Mombasa—where the CEO of GEF was arrested and charged in court in relation to the Bangla-Pesa currency—contributed to scepticism towards printed paper currencies. This scepticism was reinforced by the widespread belief that there can only be one legitimate national currency, and that any alternative may be considered illegal.

3.8 Regulatory requirements and subscriptions fees

To formally launch the community currency and render it operational, it was necessary to establish a formally registered group, complete with elected officials and a constitution outlining its objectives and activities. Upon obtaining a certificate of registration as proof of legal recognition, the group became obliged to submit regular reports and tax returns to the relevant government agencies, as required by law.

The certificate of registration was also a mandatory requirement when applying for a USSD code through a government-licensed service provider. The application process involved the payment of set-up fees and a monthly subscription, costs that the community was unable to meet independently. These expenses were therefore covered through project support, although the initiative itself remained community-driven. Furthermore, to utilise the Cyclos digital platform, the community was required to acquire a licence, which entailed compliance with specified conditions based on different categories, as well as the payment of annual fees (Awoleye and Okediran, 2021).

4. Strategies for elite capture in grassroots innovations

Drawing on the experiences and lessons from Mombasa and Nairobi, and guided by the principles of knowledge co-production, this study identified potential instances of elite capture and outlines the measures taken to address them. These measures relate to governance, management, technology, and engagement with existing policy and regulatory frameworks. Some of these responses are summarised in Table I, reflecting how they were implemented in Kisumu.

Table I: Deviations from the initial project's plans

Aspects	**Experience in Mombasa/Nairobi case**	**Initial expectation in Kisumu**	**Actual implemented in Kisumu due to reflections and continuous engagement**
Currency	Sarafu	Sarafu in either paper printed and digital form	MTCr. in digital form
Technology	Blockchain	Blockchain	Payment software
Governance and management	GE is in charge of the governance of the currency – a centralized governance – credit limits and exchangeability	GE would govern the currency	Communities take over governance – penalties and limit. Independent and federated governance. There is an executive Board. No centralized organization that govern the operations. Intercommunity community committee to set rules about intercommunity trading
Transaction path	USSD	USSD	USSD, Cyclos App, Passbook
Exchangeability	It is possible convert to KES at the rate of 1 to 1.	Conversion to KES at the rate of 1 to 1 was envisioned.	Conversion to KES is not possible. Trust for MTCr is on the relation.
Agents	Yes – agents played various roles including converting to KES. Agents could get a commission on the conversions.	Yes. Agents were to play the important role of registering people on the platform and training them on the use.	There are no agents.
Field officer	Field officers are employed by GE to mobilize, educate people on Sarafu. Field officers also train other volunteers on these roles. Field officers act as links between GE and community of users.	Field officers were envisioned but not to be employed by the project.	Managers are appointed by the group to register applicants and reset PIN, corrects wrong transaction. Managers are also users and members of the same groups.
Vendors	Vendors were supported by GE and Red Cross to assist in cash transfers to exchange goods for sarafu and thereafter redeem the sarafu from GE. This was short-lived.	There were no venders envisioned. Vendors were only envisioned in MTCr as anchors – those who sell commodities that are needed by the community of users but were rare to find.	There are no vendors

4.1 Ownership and control

To ensure ownership, control and management of the community currency, users in Kisumu insisted on establishing their own system, which they named *Maendeleo Trading Credit (MTCr.)*, rather than adopting Sarafu, over which they would have neither ownership nor control. *MTCr.* operates on the Cyclos platform through a smartphone application and USSD access on feature phones. This arrangement involved certain costs

and procedural requirements that users might otherwise have found difficult to overcome.

To formalise the initiative, users established a community-based organisation (CBO), Winam Maendeleo Warriors CBO, which was required to undergo official registration with the government's Department of Social Services. The project's technical committee—comprising officials from the City's Department of Social Services—assisted in expediting the drafting of the constitution and the registration process.

With regard to supportive technology and infrastructure, users in Kisumu expressed a preference for a digital community currency platform that could be configured in accordance with their own rules and conditions. The platform needed to be sufficiently flexible to allow periodic adjustments in line with management decisions. Moreover, it was important that the system would remain operational beyond the lifespan of the project and be managed independently by the community, without reliance on the research team. Cyclos was therefore selected, as it could be configured to meet the community's aspirations for self-ownership and autonomous operation.

The decision to shift from Sarafu credit to *MTCr.*, operated on the Cyclos digital platform, marked a significant departure in terms of both technology and monetary design in Kisumu.

4.2 Agents, vendors and field officers

In Kisumu, there were no externally contracted agents, vendors or field officers. Instead, community members were identified and trained to perform the roles of agents and field officers themselves. In contrast, in Mombasa and Nairobi, agents, vendors and field officers operated under contractual agreements with GEF, which safeguarded their interests. For instance, agents were entitled to a 10 per cent commission when converting community currency into KES, while some vendors inflated prices for goods sold in community currency in order to maximise the KES received upon conversion by GEF (Kiaka *et al.*, 2024).

Within this governance structure, the actors with the least decision-making power were the chamas and individual users. Although this power imbalance was not immediately apparent, it became more visible during the implementation of the community currency in Kisumu. Users in Kisumu expressed a strong desire to alter this arrangement in order to assume full control over the processes.

A stakeholder ranking exercise conducted in Mombasa and Nairobi revealed that GEF ranked highest in influence in both 2019 and 2021. In 2019, users ranked lowest; however, by 2021, they ranked higher than the chamas, agents and vendors. This shift may have been influenced by the abrupt discontinuation of cash withdrawals in 2021, which occurred in disregard of prior agreements. The decision led to significant dissatisfaction among vendors and chamas, who incurred financial losses. During field visits, it was reported that two vendors in Mombasa were left holding over 300,000 Sarafu each—equivalent to a loss of KES 300,000 in each case.

During one of the focus group discussions, a participant asked what could be done to ensure that users ranked higher. This question reflected their aspiration for greater control over the management of the community currency—an aspiration that, at the time, was not being realised. Another participant added:

> *"Rich people do not want to work with poor people, ….with Bangla-pesa the poor can buy from each other, and the rich are not happy about this."*

An indication that the idea of community currency is good, but the poor may lack adequate capacity to sustain it in a way that is beneficial to them. In reference to agents, one of the field officers in Mombasa (Miyani) mentioned that:

> *"…. members do not buy sarafu from agents. It is a way of channelling donor money into the community."*

The agents, therefore, seem to be taking advantage of the poor users to get more money in profit.

4.3 Politicians and government officials

The participation of politicians and government officials in project activities, through their involvement in the technical committee, proved instrumental in addressing potential challenges arising from misunderstandings with political leaders, public officials and regulatory agencies. In Kisumu, government officers supported the drafting of the group's constitution and facilitated its registration without unnecessary delays and at no cost. The inclusion of both politicians and government officials in the technical committee enabled their active engagement in the implementation process, thereby securing their support and reducing the likelihood of conflict (Kariuki and Njeri, 2018; Muriuki, 2021).

The group was formally registered as Winam Maendeleo Warriors CBO. The certificate of registration served as proof of legal recognition and carried with it the obligation to submit regular reports and tax returns to the relevant government agencies, as required by law.

4.4 Regulatory requirements and subscription fees

Operating the Cyclos digital platform requires an annual licence. The free licence limits the number of registered users to 300, thereby restricting operations to groups with fewer than 300 members. Other licence categories involve costs that are beyond the financial capacity of the community to pay and sustain. Regulatory requirements, licensing fees and ongoing subscription payments can therefore constitute a significant burden (Njoroge, 2020; Mwangi and Maina, 2018), potentially exposing valuable grassroots innovations to elite capture by actors who are better positioned to meet such financial

and administrative obligations. An alternative option under consideration is the use of manual passbooks, particularly for rural groups.

5. Discussion

This study set out to examine how grassroots innovations—specifically community currencies—can be nurtured in ways that prevent elite capture while sustaining their original purpose of improving local livelihoods. By drawing on comparative experiences from Mombasa and Nairobi, and applying the principles of knowledge co-production in Kisumu, the findings demonstrate that elite capture is neither inevitable nor abstract; rather, it is structurally embedded in governance processes, technological design, regulatory compliance mechanisms and actor relationships (Musgrave and Wong, 2016; Rigon, 2014; Warren and Visser, 2016).

5.1 Elite capture as structurally embedded in governance and design

The experiences from Mombasa and Nairobi reveal that elite capture does not always manifest through overt appropriation, but often through institutional design and decision-making asymmetries (Lauermann and Mallak, 2023). GEF's central control over technological infrastructure, credit limits, conversion processes and partnerships positioned it as the dominant actor within the governance hierarchy. Although community currencies were framed as grassroots innovations (Seyfang *et al.*, 2010; Smith *et al.*, 2014), the locus of control remained external to users and chamas. The discontinuation of cashing-out arrangements in 2021, which resulted in financial losses for vendors and chamas, exposed the vulnerability of local actors within a centralised governance model (Kiaka *et al.*, 2024).

These findings reinforce elite theory (Musgrave and Wong, 2016) in demonstrating how control over key resources—in this case technological infrastructure, regulatory access and liquidity—translates into structural power (DiCaprio, 2012). Even where participatory mechanisms exist, such as community engagement or training, decision-making authority may remain concentrated (Akbulut and Soylu, 2012; Hajjar, *et al.*, 2012). The ranking exercises conducted in Mombasa and Nairobi further illustrate that influence and control do not automatically align with the interests of end users. The shift in user rankings between 2019 and 2021 suggests that power relations are dynamic, yet remain embedded within broader structural constraints (Persha & Andersson, 2014).

In Kisumu, the deliberate shift from Sarafu to *Maendeleo Trading Credit (MTCr.)* marked a conscious effort to reconfigure governance structures. Ownership of the technological platform (Cyclos), local control over rules and the absence of external agents and vendors were not merely operational adjustments; they represented structural interventions aimed at redistributing decision-making power. Hence, we argue that elite capture can be mitigated not only through awareness, but through institutional redesign (Jens & Moeko, 2013; Platteau, 2004).

5.2 Knowledge co-production as preventive governance

The application of knowledge co-production in Kisumu functioned as a preventive governance mechanism. Rather than introducing a pre-designed model, stakeholders collectively defined problems, evaluated comparative lessons and selected design features appropriate to the local context. This aligns with the principles outlined by Albert *et al.* (2020), who describe knowledge co-production as context-based, pluralistic, goal-oriented and interactive.

Importantly, knowledge co-production in this case extended beyond technical co-design. It encompassed governance restructuring, regulatory engagement and risk anticipation. The inclusion of politicians and government officials within the technical committee reduced the likelihood of politicisation and regulatory backlash—risks previously observed in Mombasa (Ruddick *et al.*, 2015). Their participation transformed potential adversaries into stakeholders, thereby stabilising the institutional environment.

However, knowledge co-production is not inherently immune to elite capture. As the literature suggests, it is complex, time-intensive and shaped by unequal capacities among participants (Simon *et al.*, 2018). Participatory processes, if poorly designed, may reproduce existing power hierarchies (Abraham & Platteau, 2004; Rigon, 2014). The Kisumu case demonstrates that vigilance is required to ensure meaningful redistribution of authority. The insistence by users on creating *MTCr.* rather than adopting Sarafu illustrates agency from below—an example of grassroots actors actively reshaping institutional arrangements rather than passively accepting externally designed models (Gupta *et al.*, 2003; Smith *et al.*, 2014).

5.3 Technology as a site of power and control

The study highlights technology as a critical arena in which power relations are embedded (Schelenz, 2022). Blockchain-based Sarafu currencies centralised technical control within GEF, while Cyclos offered greater configurability and potential for community management. Technological architecture therefore shapes governance possibilities.

The preference in Kisumu for a digital system comparable to widely accepted platforms such as M-Pesa reflects both pragmatic considerations and strategic positioning. Digital systems enhance legitimacy and familiarity, reducing the risk of legal misunderstanding (Bornstein, 2019). At the same time, licensing requirements and subscription fees expose grassroots initiatives to new forms of dependency and potential exclusion (Njoroge, 2020; Mwangi & Maina, 2018). Regulatory compliance, while necessary for sustainability, may inadvertently favour actors with greater financial capacity—thereby creating pathways for elite capture (Meagher, 2018).

The consideration of manual passbooks for rural groups further illustrates adaptive flexibility. Rather than privileging technological sophistication, the Kisumu model prioritised accessibility and autonomy. This reinforces the argument that technological choices are not neutral; they are embedded within political and institutional arrangements (Kaplinsky, 2011).

5.4 Regulatory engagement and institutional legitimacy

Regulatory compliance emerged as both a constraint and an opportunity. Formal registration of Winam Maendeleo Warriors CBO enhanced institutional legitimacy and facilitated engagement with government structures (Fritzen, 2007). At the same time, licensing fees, tax obligations and platform costs posed financial burdens that could undermine community control.

The findings suggest that elite capture may occur indirectly through regulatory environments that grassroots actors struggle to navigate independently (Persha & Andersson, 2014). Knowledge co-production mitigated this risk by integrating government officials into the process, thereby transforming regulatory engagement from an external imposition into a collaborative pathway.

This dual role of regulation underscores a central tension: while formalisation enhances sustainability and scale, it may simultaneously increase vulnerability to external control unless carefully managed (Gallien and van den Boogaard, 2021).

5.5 Avoiding mission drift

The experience of embedding Sarafu within the Red Cross cash-transfer system demonstrates how external partnerships can shift the core purpose of grassroots innovations (Bornstein, 2019). When a community currency becomes a conduit for large-scale donor disbursement, its function may move from facilitating local exchange networks to acting as a distribution mechanism for fiat currency. Such shifts risk transforming a mutual credit system into a quasi-cash instrument, undermining its original economic rationale (Barinaga *et al.*, 2019).

The Kisumu case deliberately avoided this trajectory by limiting conversion mechanisms and eliminating external agents and vendors who could extract rents from exchange processes. This supports arguments that protecting grassroots innovations requires guarding against both overt capture and gradual mission drift (Boon-Kwee Ng *et al.*, 2019; Epstein *et al.*, 2010; Seyfang and Smith, 2007).

5.6 Implications for grassroots innovation and development practice

This study contributes to debates on grassroots innovation (Seyfang *et al.*, 2010; Smith *et al.*, 2014) by demonstrating that:

1) Elite capture is structurally embedded in governance, technology and regulatory frameworks—not merely in individual behaviour.
2) Knowledge co-production can function as a preventive governance strategy when it redistributes decision-making authority rather than merely facilitating consultation (Albert *et al.*, 2020; Simon *et al.*, 2018).
3) Institutional redesign—particularly regarding ownership of technological infrastructure and management structures—is central to safeguarding community control (Platteau, 2004).
4) Regulatory compliance must be accompanied by institutional support mechanisms to prevent exclusion or dependency (Persha & Andersson, 2014).

5) Flexibility and iterative adaptation are essential to maintaining alignment with grassroots objectives (Simon *et al.*, 2018).

Ultimately, the Kisumu case illustrates that preventing elite capture is less about excluding powerful actors and more about recalibrating power relations through inclusive, transparent and locally anchored governance arrangements. When knowledge co-production is genuinely participatory and reflexive, it can create the conditions under which grassroots innovations remain accountable to their intended beneficiaries.

6. Conclusion and recommendations

Knowledge co-production, when properly understood and implemented in line with its core principles, remains focused on addressing genuine societal challenges and identifying practical solutions. Where all key stakeholders—particularly those directly affected by the outcomes—are meaningfully involved in its processes, the knowledge generated is more relevant and applicable. Although knowledge co-production requires diverse actors to collectively produce, share and apply knowledge to societal challenges, these actors inevitably bring different interests and forms of agency shaped by their expertise, perspectives and experiences. As noted by Simon *et al.* (2018), this makes the process inherently complex, time-consuming and often unpredictable in its outcomes.

For the process to remain viable, each actor must perceive some relevance to their interests—whether direct or indirect—if the project is to sustain engagement. At the same time, stakeholders must avoid prioritising individual interests over the collective objective, as doing so risks diverting the project's focus and enabling 'elite capture'. Community currency, in particular, is a sensitive initiative that can easily become politicised, thereby undermining its growth and development. Participants therefore require adequate training and sensitisation to understand its purpose and potential, especially in improving local economic opportunities for low-income populations.

Regulatory requirements, while sometimes difficult to meet, are essential for long-term sustainability and institutional legitimacy. These include formal registration of the organisation to obtain a registration certificate and tax identification number, compliance with tax filing obligations, access to government services, and the ability to transact formally with other institutions. Grassroots innovations managed by local communities may lack the financial and institutional capacity to meet these requirements fully, which may weaken their control over the initiative unless deliberate external support is provided.

Through knowledge co-production, constructive engagement and broad stakeholder participation, a more inclusive and comprehensive understanding of issues can be developed, with priority given to the shared objective and to end users. This approach strengthens local ownership, ensuring that management and control remain in the hands of the primary beneficiaries. Its flexibility—allowing for adjustments that maintain focus on the project's overarching goals—is particularly valuable.

Key adaptations in Kisumu included abandoning printed paper currency in favour of a digital platform and, where necessary, manual passbooks; prioritising training and sensitisation through the technical committee to reduce the risk of politicisation and misunderstanding; and guarding against transforming the system into a cash-based mechanism, as occurred with the engagement of the Kenya Red Cross Society. Such shifts can alter the fundamental purpose of the initiative and should be carefully managed. Drawing on lessons from Nairobi and Mombasa, the use of external agents and vendors—who had opportunities for exploitation within the existing structure—was avoided in Kisumu. Field officers were retained, but as managers drawn from the community itself rather than salaried external employees.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

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References

Akbulut, B., & Soylu, C. (2012). An inquiry into power and participatory natural resource management. *Cambridge Journal of Economics, 36*(5), 1143–1162. Retrieved from https://www.jstor.org/stable/24232413

Albert, V. N., Christopher, C., Marie, F. L., Simon, W., Carina, W., Patricia, B., Angela, T. B., Elena, M. B., Reinette, B., Ariane de, B., Bruce, M. C., Josep, G. C., Stephen, R. C., Carl, F., Elizabeth, A. F., Owen, G., Stefan, G., Jean-Baptiste, J., Melissa, L., … Österblom, H. (2020). Principles for knowledge co-production in sustainability research. *Nature Sustainability*. https://doi.org/10.1038/s41893-019-0448-2

Anderson, P. M. L., Brown-Luthango, M., Cartwright, A., Farouk, I., & Smit, W. (2013). Brokering communities of knowledge and practice: Reflections on the African Centre for Cities' CityLab programme. *Cities, 32*, 1–10. https://doi.org/10.1016/j.cities.2013.02.002

Arimah, B. C. (2012). *Slums as expressions of social exclusion: Explaining the prevalence of slums in African countries*. https://www.researchgate.net/publication/228856797_Slums_As_Expressions_of_Social_Exclusion_Explaining_The_Prevalence_of_Slums_in_African_Countries

Awoleye, M. O., & Okediran, O. O. (2021). Evaluation of community banking software in developing countries: A focus on flexibility and cost efficiency. *Journal of Financial Technology, 14*(3), 125–140.

Barinaga, E. (2020). A route to commons-based democratic monies? Embedding the governance of money in traditional communal institutions. *Frontiers in Blockchain, 3*, 12. https://doi.org/10.3389/fbloc.2020.575851

Barinaga, E., Oloko, M., Ruddick, W. O., & Zapata, C. (2019). *Community currencies as means of local economic empowerment: Innovations from Mombasa and Nairobi to Kisumu, Kenya*. https://www.researchgate.net/publication/335338821_Community_Currencies_as_Means_of_Local_Economic_Empowerment_Innovations_from_Mombasa_and_Nairobi_to_Kisumu_Kenya_-_Swedish_International_Centre_for_Local_Democracy_ICLD_Policy_Brief_no4

Böhm, S., & Brei, V. (2008). Marketing the hegemony of development: Of pulp fiction and green deserts. *Marketing Theory, 8*(4), 339–366. https://doi.org/10.1177/1470593108096540

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Christenson, A. L. (2013). The co-production of archaeological knowledge: The essential relationship of amateurs and professionals in 20th century American archaeology. *Complutum*. https://doi.org/10.5209/rev_CMPL.2013.v24.n2.43367

Cooke, B., & Kothari, U. (2001). The case for participation as tyranny. In B. Cooke & U. Kothari (Eds.), *Participation: The new tyranny?* (pp. 1–15). Zed Books. Retrieved from https://sergiorosendo.pbworks.com/f/Cooke+and+Kothari+2001+Chap+1.pdf

County Government of Kisumu. (2023). *Kisumu County Integrated Development Plan (2023–2027) (CIDP III)*. https://www.kisumu.go.ke/download/kisumu-cidp-iii-2023-2027/

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE. Retrieved from https://revistapsicologia.org/public/formato/cuali2.pdf

DiCaprio, A. (2012). Introduction: The role of elites in economic development. In A. H. Amsden, A. DiCaprio, & J. A. Robinson (Eds.), *The role of elites in economic development*. Oxford University Press. Retrieved from https://global.oup.com/academic/product/the-role-of-elites-in-economic-development-9780199659036?cc=ro&lang=en&

Dissaux, T. (2015). *Financing for development: A monetary issue in which money does not have a word*. 3rd International Conference on Social and Complementary Currencies. https://socialcurrency.sciencesconf.org/conference/socialcurrency/pages/Financing_for_development_DISSAUX.pdf

Epstein, M. J., & Yuthas, K. (2010). Mission impossible: Diffusion and drift in the microfinance industry. *Sustainability Accounting, Management and Policy Journal, 1*(2), 201–221. https://doi.org/10.1108/20408021011089248

Fritzen, S. A. (2007). Can the design of community-driven development reduce the risk of elite capture? *World Development, 35*(8), 1359–1375. https://doi.org/10.1016/j.worlddev.2007.05.001

Fuest, C. (2005). Economic integration and tax policy with endogenous foreign firm ownership. *Journal of Public Economics, 89*(9–10), 1823–1840. https://doi.org/10.1016/j.jpubeco.2004.10.002

Gallien, M., & van den Boogaard, V. (2021). Rethinking formalisation: A conceptual critique and research agenda (ICTD Working Paper 127). Institute of Development Studies. https://doi.org/10.19088/ICTD.2021.017

Gilbert, A. (2007). The return of the slum: Does language matter? *International Journal of Urban and Regional Research, 31*(3), 697–713. https://doi.org/10.1111/j.1468-2427.2007.00754.x

Gupta, A. (2012). Innovations for the poor by the poor. *International Journal of Technology, Learning, Innovation and Development, 5*, 28–39. https://www.idin.org/sites/default/files/resources/Gupta_2012.pdf

Gupta, A., Sinha, R., Koradia, D., Patel, R., Parmar, M., Rohit, P., Patel, H., Patel, K., Chand, V. S., James, T. J., & others. (2003). Mobilising grassroots' technological innovations and traditional knowledge, values and institutions: Articulating social and ethical capital. *Futures, 35*, 975–987. https://doi.org/10.1016/S0016-3287(03)00053-3

Gutberlet, J., Kain, J. J., Nyakinya, B., Ochieng, D., Odhiambo, N., Oloko, M. O., Omondi, E., Omolo, J., Zapata, P., & Zapata Campos, M. J. (2016). Socio-environmental entrepreneurship and the provision of critical services in informal settlements. *Environment and Urbanization, 28*(1). https://doi.org/10.1177/0956247815623772

Hajjar, R. F., Kozak, R. A., & Innes, J. L. (2012). Is decentralisation leading to "real" decision-making power for forest-dependent communities? Case studies from Mexico and Brazil. *Ecology and Society, 17*(1). Retrieved from https://www.researchgate.net/publication/248393511_Is_decentralization_leading_to_real_decision-making_power_for_forest-dependent_communities_Case_studies_from_Mexico_and_Brazil

Hall, J., Matos, S., Sheehan, L., & Silvestre, B. (2012). Entrepreneurship and innovation at the base of the pyramid: A recipe for inclusive growth or social exclusion? *Journal of Management Studies, 49*, 785–812. Retrieved from https://doi.org/10.1111/j.1467-6486.2012.01044.x

Hardoy, J. E., Mitlin, D., & Satterthwaite, D. (2001). *Environmental problems in an urbanising world: Finding solutions for cities in Africa, Asia and Latin America*. Earthscan. https://doi.org/10.4324/9781315071732

Hemström, K., Simon, D., Palmer, H., Perry, B., & Polk, M. (2021). *Transdisciplinary knowledge co-production: A guide for sustainable cities*. Practical Action Publishing. http://dx.doi.org/10.3362/9781788531481

Holston, J. (2009). Insurgent citizenship in an era of global urban peripheries. *City & Society, 21*(2). https://doi.org/10.1111/j.1548-744X.2009.01024.x

Jens, F. L., & Moeko, S.-J. (2013). Revisiting the issue of elite capture of participatory initiatives. *World Development, 46*, 104–112. https://doi.org/10.1016/j.worlddev.2013.01.028

Joubert, L., & Mistra Urban Futures Realising Just Cities Team. (2021). *Realising just cities* (Report). African Centre for Cities & Mistra Urban Futures. https://www.africancentreforcities.net/wp-content/uploads/2021/03/Realising-Just-Cities-final-version-2021.pdf

Kaplinsky, R. (2011). Schumacher meets Schumpeter: Appropriate technology below the radar. *Research Policy, 40*(2), 193–203. https://doi.org/10.1016/j.respol.2010.10.003

Kariuki, P., & Njeri, W. (2018). The burden of compliance: Regulatory costs for small organisations in Kenya. *Journal of Development and Social Policy, 9*(2), 45–60.

Kiaka, R. D., Oloko, M. O. O., Ocampo, J., & Barinaga, E. (2024). "Gaming the system": How communities strategise around currencies, convertibility and cash transfers in Kenya. *European Journal of Social Sciences Studies, 9*(6). http://dx.doi.org/10.46827/ejsss.v9i6.1689

Labonte, M. T. (2011). From patronage to peacebuilding? Elite capture and governance from below in Sierra Leone. *African Affairs, 111*(442), 90–115. Retrieved from https://www.jstor.org/stable/41494467

Lauermann, J., & Mallak, K. (2023). Elite capture and urban geography: Analysing geographies of privilege. *Progress in Human Geography, 47*(5), 645–663. Retrieved from https://doi.org/10.1177/03091325231186810

Linna, P. (2013). Bricolage as a means of innovating in a resource-scarce environment: A study of innovator-entrepreneurs at the BOP. *Journal of Developmental Entrepreneurship, 18*(3). https://doi.org/10.1142/S1084946713500155

Mansuri, G., & Rao, V. (2004). *Community-based and -driven development: A critical review* (Policy Research Working Paper No. 3209). World Bank. https://openknowledge.worldbank.org/handle/10986/14310

Mansuri, G., & Rao, V. (2013). *Localising development: Does participation work?* World Bank.

Mattsson, C. E. S., Criscione, T., & Ruddick, W. O. (2022). Sarafu community inclusion currency 2020–2021. *Scientific Data, 9*, 426. https://doi.org/10.1038/s41597-022-01539-4

Meagher, K. (2018). Cannibalising the informal economy: Frugal innovation and economic inclusion in Africa. *The European Journal of Development Research, 30*(1), 17–33. http://dx.doi.org/10.1057/s41287-017-0113-4

Moog, S., Spicer, A., & Böhm, S. (2015). The politics of multi-stakeholder governance initiatives: The case of the Forest Stewardship Council. *Journal of Business Ethics, 128*(3), 469–493. https://doi.org/10.1007/s10551-013-2033-3

Mosca, G. (1939). *The ruling class*. McGraw-Hill. Retrieved from https://archive.org/details/rulingclass031748mbp

Muriuki, J. (2021). Challenges in legal compliance for community-based organisations in Kenya. *East African Law Review, 18*(1), 29–41.

Musgrave, M. K., & Wong, S. (2016). Towards a more nuanced theory of elite capture in development projects: The importance of context and theories of power. *Journal of Sustainable Development, 9*(3). https://doi.org/10.5539/jsd.v9n3p87

Mwangi, K., & Maina, G. (2018). Regulatory complexity and its impact on small NGOs and CBOs in Kenya. *International Journal of Public Administration and Governance, 7*(1), 13–26.

Ng, B. K., Mohamad, Z. F., Chandran, V. G. R., & Mohamad Noor, N. H. (2019). Public policy interventions for grassroots innovations: Are we getting it right? *Asian Journal of Technology Innovation, 27*(3), 338–358. https://doi.org/10.1080/19761597.2019.1678392

Njoroge, T. (2020). Financial constraints and compliance challenges for self-help groups in Kenya. *Journal of Social Economics, 14*(3), 101–120.

Oloko, M., & Ness, B. (2020). Local projects retrofitted. In *Comparative urban research from theory to practice* (pp. 41–62). Policy Press. https://bristoluniversitypressdigital.com/view/book/9781447354093/ch003.xml

Ostrom, E. (1996). Crossing the great divide: Coproduction, synergy and development. *World Development, 24*(6), 1073–1087. https://doi.org/10.1016/0305-750X(96)00023-X

Palmer, H., & Walasek, H. (2016). *Co-production in action: Towards realising a just city*. Mistra Urban Futures. https://www.mistraurbanfutures.org/en/publication/co-production-action-towards-realising-just-cities

Pansera, M., & Owen, R. (2017). Innovation for de-growth: A case study of counter-hegemonic practices from Kerala, India. *Journal of Cleaner Production, 197*, 1872–1883. https://doi.org/10.1016/j.jclepro.2016.06.197

Pansera, M., & Sarkar, S. (2016). Crafting sustainable development solutions: Frugal innovations of grassroots entrepreneurs. *Sustainability, 8*(51). https://doi.org/10.3390/su8010051

Pareto, V. (1935). *The mind and society: A treatise on general sociology*. Harcourt Brace. Retrieved from https://openlibrary.org/books/OL6319598M/The_mind_and_society

Pareto, V. (1968). *The rise and fall of elites: An application of theoretical sociology*. Bedminster Press. Retrieved from https://books.google.ro/books/about/The_Rise_and_Fall_of_Elites.html?id=SnKHOKGXUZwC&redir_esc=y

Persha, L., & Andersson, K. (2014). Elite capture risk and mitigation in decentralised forest governance regimes. *Global Environmental Change, 24*, 265–276. https://doi.org/10.1016/j.gloenvcha.2013.12.005

Platteau, J. P. (2004). Monitoring elite capture in community-driven development. *Development and Change, 35*(2). https://doi.org/10.1111/j.1467-7660.2004.00350.x

Platteau, J. P., & Abraham, A. (2002). Participatory development in the presence of endogenous community imperfections. *Journal of Development Studies, 39*(2), 104–136. https://doi.org/10.1080/00220380412331322771

Prahalad, C. K. (2006). *The fortune at the bottom of the pyramid: Eradicating poverty through profits*. Wharton School Publishing/Pearson Education. Retrieved from https://knowledge.wharton.upenn.edu/article/the-fortune-at-the-bottom-of-the-pyramid-eradicating-poverty-through-profits/

Quistgaard, S. K., & Villadsen, K. (2020). From social gospel to CSR: Was corporate social responsibility ever radical? *Organization, 27*(6), 924–942. https://doi.org/10.1177/1350508419877611

Ramdorai, A., & Herstatt, C. (2015). Bottom of the pyramid concept: Taking stock. In *Frugal innovation in healthcare* (India Studies in Business and Economics). Springer. https://doi.org/10.1007/978-3-319-16336-9_2

Ribot, J. C. (2004). *Waiting for democracy – The politics of choice in natural resource decentralisation* (WRI Report). World Resources Institute. http://pdf.wri.org/wait_for_democracy.pdf

Rigon, A. (2014). Building local governance: Participation and elite capture in slum-upgrading in Kenya. *Development and Change, 45*(2), 257–283. https://doi.org/10.1111/dech.12078

Ruddick, W. (2011). Eco-Pesa: An evaluation of a complementary currency programme in Kenya's informal settlements. *International Journal of Community Currency Research, 15*(A), 1–12. https://www.socioeco.org/bdf_fiche-document-887_en.html

Ruddick, W., Richards, M., & Bendell, J. (2015). Complementary currencies for sustainable development in Kenya: The case of the Bangla-Pesa. *International Journal of Community Currency Research, 19*, 18–30. https://www.socioeco.org/bdf_fiche-document-2161_en.html

Schelenz, L. (2022). Diversity and social justice in technology design. *International Journal of Critical Diversity Studies, 5*(2), 33–53. Retrieved from https://www.jstor.org/stable/48755788

Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics, 16*(4), 584–603. Retrieved from https://base.socioeco.org/docs/seyfang_and_smith.pdf

Seyfang, G., Smith, A., & Longhurst, N. (2010). Grassroots innovations for sustainable development: A new research agenda. *Economic Sociology: The European Electronic Newsletter, 12*(1), 68–72. https://base.socioeco.org/docs/seyfang_and_smith.pdf

Simon, D., Palmer, H., & Riise, J. (2020). *Comparative urban research from theory to practice: Co-production for sustainability*. Policy Press. https://doi.org/10.2307/j.ctv10tq4cj

Simon, D., Palmer, H., Riise, J., Smit, W., & Valencia, S. (2018). The challenges of transdisciplinary knowledge production: From unilocal to comparative research. *Environment and Urbanization, 30*(2), 481–500. https://doi.org/10.1177/0956247818787177

Smit, W., Durakovic, E., Sitas, R., Johansson, M., Haysom, G., Dymitrow, M., Ingelhag, K., & Kotze, S. (2020). Replicating projects for comparative research: Mistra Urban Futures' experiences with comparative work on knowledge exchange, food and transport. In *Comparative urban research from theory to practice: Co-production for sustainability* (pp. 63–88). Bristol University Press. https://doi.org/10.2307/j.ctv10tq4cj.10

Smith, A., Fressoli, M., Abrol, D., Arond, E., & Ely, A. (2017). *Grassroots innovation movements: Pathways to sustainability*. Routledge. Retrieved from https://library.oapen.org/handle/20.500.12657/53011

Smith, A., Fressoli, M., & Thomas, H. (2014). Grassroots innovation movements: Challenges and contributions. *Journal of Cleaner Production, 63*, 114–124. https://doi.org/10.1016/j.jclepro.2012.12.025

Tesfaye, L. A., & Fougère, M. (2021). Frugal innovation hijacked: The co-optive power of co-creation. https://doi.org/10.1007/s10551-021-04883-4

Valencia, S. C., Simon, D., Croese, S., Diprose, K., Nordqvist, J., Oloko, M., Sharma, T., & Versace, I. (2020). Internationally initiated projects with local co-production: Urban Sustainable Development Goal project. In *Comparative urban research from theory to practice: Co-production for sustainability* (pp. 113–132). Policy Press. https://doi.org/10.2307/j.ctv10tq4cj.12

Varman, R., Skålén, P., & Belk, R. W. (2012). Conflicts at the bottom of the pyramid: Profitability, poverty alleviation, and neoliberal governmentality. *Journal of Public Policy & Marketing, 31*(1), 19–35. Retrieved from https://www.researchgate.net/publication/236693804_Conflicts_at_the_Bottom_of_the_Pyramid_Profitability_Poverty_Alleviation_and_Neoliberal_Governmentality

Warren, C., & Visser, L. (2016). The local turn: An introductory essay revisiting leadership, elite capture and good governance in Indonesian conservation and development programmes. *Human Ecology, 44*(3), 277–286. https://doi.org/10.1007/s10745-016-9831-z

World Bank. (2004). *World development report 2004: Making services work for poor people*. World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/832891468338681960

Zapata Campo, M. J., Barinaga, E., Kain, J., Oloko, M., & Zapata, P. (2019). *Organising grassroots initiatives for a more inclusive governance: Constructing the city from below* (Research Report No. 15). Swedish International Centre for Local Democracy. https://www.local2030.org/library/676/Organising-grassroots-initiatives-for-a-more-inclusive-governance-Constructing-the-city-from-below.pdf

Zapata Campos, M. J., Barinaga, E., Kain, J., Oloko, M., & Zapata, P. (2022). Organising grassroots infrastructure: The (in)visible work of organisational (in)completeness. *Urban Studies*. https://doi.org/10.1177/00420980211062818

Zapata Campos, M. J., Carenzo, S., Charles, G., Gutberlet, J., Kain, J.-H., Oloko, M. O., Reynosa, J. P., & Zapata, P. (2023). Grassroots innovations in 'extreme' urban environments: The inclusive recycling movement. *Environment and Planning C: Politics and Space, 41*(2), 351–374. https://doi.org/10.1177/23996544221118191

Zeller, S. (2020). Economic advantages of community currencies. *Journal of Risk and Financial Management, 13*(11), 271. https://doi.org/10.3390/jrfm13110271

Zeschky, M. B., Winterhalter, S., & Gassmann, O. (2014). From cost to frugal and reverse innovation: Mapping the field and implications for global competitiveness. *Research-Technology Management, 57*(4), 20–27. https://www.tandfonline.com/doi/abs/10.5437/08956308X5704235