

Final Report

BOMA's Partnership Strategy: Leveraging private sector, government and NGO partnerships to foster sustainable livelihoods for women in last mile communities in Kenya, Uganda, and Ethiopia

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Disclaimer

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Executive Summary

Across East Africa's arid and semi-arid lands, extreme poverty has proven stubbornly resistant to conventional development approaches. In Kenya's ASAL counties, food poverty rates reach 63 percent in Turkana - more than double the national average. A single five-season drought between 2020 and 2023 wiped out an estimated \$1.5 billion in household wealth. Youth unemployment reaches 53 percent in counties like Marsabit and Isiolo.

BOMA's response — the Rural Entrepreneur Access Program (REAP) — has generated one of the strongest evidence bases in the graduation sector. Three to five years after program exit, 81 percent of graduates continue to operate a business, household savings have increased by 78 percent, and the share of children going to bed hungry has fallen from 40 percent at baseline to 13 percent at follow-up. These are durable, compounding gains - not temporary uplift.

The quantitative analysis conducted for this research deepens this picture considerably. Income gains are substantial across all groups and countries - ranging from +38 percent for women in Ethiopia to +205 percent for men in Kenya, with Kenyan women seeing monthly household income rise by nearly 5,000 KES and Ugandan men gaining nearly 320,000 UGX per month. Social Return on Investment (SROI) ratios are positive across all groups, reaching 5.6:1 for men in Kenya and 5.0:1 in Uganda. For women, SROI ratios are 2.2:1 in Kenya, 1.4:1 in Uganda, and 1.0:1 in Ethiopia. Women in Uganda show notably strong absolute gains (over 88,000 UGX per month), consistent with the specific adaptations of the PSGP program in refugee-hosting and pastoralist communities.

Yet a persistent gender gap remains. Men in mixed-gender programs realize substantially larger percentage gains than their female counterparts – in Kenya, the male impact of +205 percent is more than double the female impact of +92 percent; in Uganda, the male impact is nearly four times higher. These figures do not diminish BOMA's impact — they identify the clearest opportunity for program optimization, particularly around asset-building, mobility constraints, and market linkages in female-dominated value chains.

The central finding of this research, however, is that household-level success is hitting a structural ceiling. Graduation works. The ecosystem that should receive graduates does not yet exist at scale. Policy frameworks in Kenya, Ethiopia, and Uganda lack targeted incentives for private investment in last-mile communities. Private sector actors face structural cost barriers, not just risk aversion. And the role NGOs can play as market facilitators - de-risking entry, aggregating demand, and providing market intelligence - remains informal and underfunded.

The study's market analysis reinforces the commercial case for change. Household consumption in these areas is approximately three times less sensitive to changes in wealth than in comparable non-BOMA regions, creating more stable, predictable demand for businesses. In BOMA regions, internet infrastructure generates more

than four times the mobile money adoption effect compared to non-BOMA areas - demonstrating that NGO programming multiplies the return on public infrastructure investment, and that connectivity alone is never sufficient without the human capital development that BOMA's model provides. The gender gap in mobile money usage has effectively closed in BOMA program areas, while persisting elsewhere — a direct result of intentional programme design that national policy has not yet replicated.

For governments, the priority is translating policy ambition into operational architecture. Kenya's Social Protection Bill 2024 and pending Livestock Bill represent a genuine policy window: both should embed a formal graduation bridge — a structured pathway from safety net receipt to enterprise and market participation. Ethiopia and Uganda should move urgently on regulatory reform for digital financial services, following Kenya's light-touch M-Pesa model, which this research estimates accounts for the majority of Kenya's 52-point mobile money advantage over Ethiopia. For donors, the shift required is from activity-based grants to multi-year, outcomes-linked financing that funds market facilitation functions - convening, intelligence provision, and partnership brokering — not just program delivery. Blended finance facilities targeted at transactions of \$25,000–\$500,000, using NGO-generated market data as the basis for due diligence, represent the most direct lever available.

For BOMA specifically, this research points to three strategic moves. First, clarify and communicate its system role - not as a charitable implementer but as a portal into an \$11.9 billion market, a de-risker of last-mile investment, and a provider of the granular longitudinal data that commercial actors cannot generate independently. Second, formalize its data infrastructure as a market asset and deploy it systematically in every private sector and government partnership. Third, invest in the organizational capabilities — strategic partnership staff, policy advocacy capacity, and longer planning horizons — needed to operate as a system broker, and redesign program components to specifically close the gender gap in economic outcomes that the evidence has now clearly identified.

1. Introduction & Strategic Context

1.1 Overview and Purpose

Across the arid and semi-arid lands (ASALs) of East Africa, extreme poverty has proven stubbornly resistant to conventional development approaches. Despite decades of humanitarian investment—and a global poverty rate that fell from roughly one in three people in 1990 to one in ten by 2019—progress in these drylands has lagged significantly behind global averages. In Kenya specifically, external shocks, such as COVID-19, pushed around 5.1M people into poverty in 2020.¹

Globally millions of people live in these challenging environments,² confronting the compounding pressures of climate vulnerability, conflict and displacement, chronic food insecurity, and the near-total absence of functioning market infrastructure. Women and youth bear a disproportionate share of these burdens, facing structural barriers to economic participation that persist even when broader conditions improve.

This report is the capstone deliverable of a Columbia University School of International and Public Affairs (SIPA) research partnership with BOMA — a Nairobi-headquartered NGO that has implemented poverty graduation programming across Kenya and six other African countries since its founding in 2006.³ **The central question for this capstone is both practical and urgent: how can policy frameworks, market systems, and partnership models unlock responsible private sector engagement in last-mile communities, and what role can NGOs like BOMA play in bridging the gap between household-level graduation success and the systemic scale that durable poverty reduction demands?**

The report draws on a mixed-methods research design combining policy and literature review, secondary quantitative data analysis, key informant interviews, and case study analysis across Kenya and Ethiopia. It is grounded in BOMA's own evidence base—including longitudinal assessments of the Rural Entrepreneur Access Program (REAP), the REAP for Youth impact and learning report, and the USAID NAWIRI Mercy Corps–BOMA joint graduation learning product—and situates these findings within the broader landscape of inclusive market development and enabling policy frameworks.

Primary audiences include policymakers at national and county levels in Kenya and Ethiopia, bilateral and multilateral donors, development finance institutions, and private sector actors interested in last-mile market engagement. The report also serves BOMA's internal strategic planning, supporting its transition toward government ownership and systems-level change.

1.2 The Problem: Poverty Persistence in the Drylands

¹ World Bank Group, *Kenya Poverty and Equity Assessment 2023 From Poverty to Prosperity: Making Growth More Inclusive* (The World Bank Group, 2023),

<https://documents1.worldbank.org/curated/en/099121323174510651/pdf/P1773530a17de80210927b0b89b90c9941c.pdf>.

² Intergovernmental Panel on Climate Change (IPCC), *Sixth Assessment Report (AR6)*, <https://www.ipcc.ch/assessment-report/ar6/>.

³ BOMA, "Countries," BOMA.Ngo, The BOMA Project, accessed April 23, 2026, <https://www.boma.ngo/countries/>.

The drylands of East Africa represent one of the most challenging development contexts on the planet. In Kenya's arid and semi-arid counties, food poverty rates measure between 28.9 and 63.4 percent against a national average of 30.5 percent, and overall poverty rates ranging from 53.9 to 77.7 percent against a national figure of 38.6 percent. Rates of global acute malnutrition in these counties run at four to five times the national average.⁴

Three structural dynamics make poverty in these regions especially persistent:

- **First, traditional pastoral livelihoods are under acute and accelerating pressure because of climate change.** In a single extended drought spanning late 2020 to early 2023, an estimated 2.6 million animals died across Kenya's northern regions, resulting in an economic loss of more than US\$1.5 billion.⁵
- **Second, women, refugees, and youth face unique yet overlapping constraints.** Gendered constraints include limited financial access, weak property rights, restricted mobility, and social norms, all of which constrain economic agency and compound material poverty. Sub-Saharan Africa hosts 26 percent of global refugees,⁶ and displacement disproportionately affects women's capacity to participate in economic activity. Youth unemployment worsens this picture as young people aged 15 to 24 account for approximately 60 percent of the unemployed across Sub-Saharan Africa.⁷
- **Third, last-mile communities remain fundamentally disconnected from the market systems, financial infrastructure, and institutional frameworks that could enable sustained economic inclusion.** Markets are thin; private actors face high transaction costs, limited information, and inadequate risk mitigation; and policy environments have rarely addressed these barriers in ways that attract productive investment. As a result, households that graduate from poverty programs are stuck in a structural trap and face limited pathways to sustained economic participation because the broader market and policy ecosystem has not evolved to include them.

1.3 BOMA and the REAP Model

BOMA has spent over a decade building, testing, and refining a poverty graduation model specifically adapted to East Africa's drylands. Its flagship program, the Rural Entrepreneur Access Program (REAP), is a context-informed, group-based approach designed to sustainably reduce extreme poverty through a sequenced package of interventions: community targeting, conditional cash transfers to seed group-based business formation, financial literacy and business skills training, savings group

⁴ Kenya National Bureau of Statistics, *County Statistical Abstracts for Turkana, Marsabit, Samburu, and Isiolo Counties*, (Nairobi: Kenya National Bureau of Statistics, 2022), <https://www.knbs.or.ke/wp-content/uploads/2023/09/2022-Statistical-Abstract.pdf>.

⁵ Rhoda A. Odongo et al., "Drought Impacts and Community Adaptation: Perspectives on the 2020–2023 Drought in East Africa," *International Journal of Disaster Risk Reduction* 119, no. 2 (2025), <https://doi.org/10.1016/j.ijdrr.2025.105309>.

⁶ United Nations High Commissioner for Refugees (UNHCR), *Global Trends: Forced Displacement 2022*, (Geneva, UNHCR, 2023), <https://www.unhcr.org/us/global-trends-report-2023>.

⁷ International Labour Organization, *World Employment and Social Outlook Trends, 2023*, https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@inst/documents/publication/wcms_865332.pdf.

formation, two years of mentoring and coaching, and linkages to financial institutions and market connections.

Key Evidence from BOMA's Longitudinal Assessment

Three-to-five years after program graduation, REAP participants demonstrated sustained and compounding gains across income, savings, food security, and human capital outcomes—suggesting that the program produces durable household economic trajectory change, not temporary uplift.⁸

BOMA has since developed six distinct REAP variants to address specific population needs. Standard REAP (2012) forms the model's core. REAP for Climate Resilience (2019) focuses on green business development in climate-exposed communities. REAP for Nutrition (2021) integrates malnutrition-sensitive interventions. REAP for Youth (2021) adapts the model for young men and women aged 18 to 34 with condensed timelines and enhanced business development services. REAP for Refugees (2022) addresses displaced populations. REAP for Government aims to strengthen government delivery systems for adoption within national social protection architectures.

The REAP for Youth pilot—implemented through the SEED program in partnership with Smart Regional Consultants and county governments of Isiolo and Marsabit—demonstrated strong outcomes across a condensed timeline: 89 percent of SEED participants increased their business value by at least 25 percent beyond their start-up grant; 98 percent achieved financial inclusion; and 100 percent had at least one active income source, compared to 15 percent at baseline. Female participants led male participants across most metrics including savings, business values, and improvements in agency.⁹

81% continued operating a business 3 to 5 years after graduation	+13% total household income above program-exit levels at follow-up	+78% increase in household savings, with shift toward formal banking	13% children going to bed hungry (down from 40% at baseline)
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This body of evidence positions BOMA not merely as a service delivery organization but as a successful learning institution with a sophisticated, adaptive, and evidence-grounded approach to poverty graduation. The outstanding question—and the central challenge this report addresses—is what it would take to move from proven household-level impact to genuine systems-level scale.

1.4 The Strategic Gap: From Household Graduation to Market Integration

⁸ The BOMA Project (2022). Rural Entrepreneur Access Program: Impact and Learning Report, 2023.

All REAP outcome statistics cited here derive from this study unless otherwise stated.

⁹ The BOMA Project (2023). REAP for Youth: SEED Program Impact and Learning Report.

BOMA's internal strategic review, conducted with The Bridgespan Group in 2024,¹⁰ identified a critical tension at the heart of the organization's growth ambitions. Graduation programs have demonstrated success in improving income, assets, and resilience for the poorest households; however, sustaining and scaling these gains requires integration with private sector actors—agri-buyers, mobile service providers, financial institutions, input suppliers, cooperatives—who currently have limited presence or incentive to operate in last-mile communities.

The review identified eight strategic shifts necessary for BOMA to move toward systemic impact. Chief among these are: executing a dynamic country expansion framework oriented toward government ownership; adopting a reach goal aligned with government poverty reduction targets; innovating through technology and productization; and securing catalytic, large-scale philanthropic funding. Critically, the review noted that BOMA's strong differentiators—its ability to reach last-mile communities, its tech-enabled performance monitoring, and its proximate leadership and field teams—are precisely the capabilities that position it to act as a bridge between proven community-level models and the market and policy systems needed for inclusive growth.

Yet a gap remains. Even where BOMA has successfully graduated households and connected participants to savings groups, cooperatives, and local value chains, structural constraints limit further progress. Policy frameworks in both Kenya, Uganda and Ethiopia have not consistently provided the enabling conditions—tax incentives, risk-sharing instruments, blended finance architecture, or public-private partnership structures—that would attract responsible private sector engagement at the last mile.

This research project is designed to generate the evidence and analysis needed to address these gaps. It examines how policy frameworks can enable inclusive private sector engagement, how NGOs like BOMA can systematically support and complement these frameworks, and what specific policy levers, partnership mechanisms, and facilitation roles are needed to translate household-level success into scaled, market-embedded, resilient livelihoods for women and youth in Kenya and Ethiopia.

1.5 Research Scope and Geographic Focus

This report focuses primarily on Kenya, Uganda and Ethiopia, the three countries in which BOMA has operational experience and the most robust evidence base. The concentration of primary data collection in these two countries enables more substantive analysis of specific policy environments, market systems, and government engagement dynamics than a wider geographic scope would permit.

Within Kenya, the research draws on experience in the ASAL counties where BOMA operates — Marsabit, Isiolo, Turkana, Samburu, and neighboring counties — where structural challenges are most acute and BOMA's program evidence is richest, and where government partnerships at county and national levels are most developed.

Within Ethiopia, the research draws on BOMA's operational experience in comparable dryland regions, engaging with federal and regional government actors, NGO peers, and

¹⁰ The Bridgespan Group (2024). BOMA: Close out Meeting, 2024.

private sector representatives in priority value chains including honey, dairy, digital lending, and community-level financial services.

Comparative case studies from Rwanda, Bangladesh, and other markets where policy frameworks have successfully catalyzed inclusive private investment are integrated throughout the report to provide reference points and transferable lessons.

1.6 Why This Study, Why Now?

Shifting Aid Landscape

Overlapping crises, geopolitical shifts, and rising demands on limited public resources are driving structural shifts in the global development ecosystem. The OECD highlighted that the international aid system faces “unprecedented strain” as pressure grows to address global public concerns—conflict, climate change, and health—alongside traditional poverty-reduction goals.¹¹ Traditional models of long-term, predictable funding are giving way to complex, risk-sensitive, and policy-influenced financing arrangements.

Alongside this shift, official development assistance (ODA) has become more volatile and less predictable. OECD data shows that ODA has been increasingly allocated toward refugee support, conflict response, and geopolitical priorities. Global crises—COVID-19, the war in Ukraine, climate-related disasters—have diverted funds initially allocated to long-term poverty reduction and livelihood programs.¹² In fragile and last-mile contexts where sustained, multi-year investments are essential to build economic resilience, this shift is particularly consequential. It creates an urgency for organizations like BOMA to explore alternative pathways for scaling impact beyond traditional donor funding.

The Localization Shift

The growing emphasis on locally led development is reshaping donor and multilateral funding priorities, with greater recognition given to local organizations’ proximity to communities and contextual knowledge. The OECD has underscored locally-led development as a key pillar of future development cooperation. As a result, local NGOs face rising expectations: they are increasingly expected to act as market facilitators, conveners of public and private actors, and intermediaries that enable inclusive systems, in addition to being program implementers.

BOMA’s experience demonstrates the potential for NGOs to play a catalytic role in linking household-level interventions with market and policy systems. But NGO roles remain insufficiently formalized within policy frameworks, and this study specifically seeks to address that gap.

Catalytic Philanthropy and the MacKenzie Scott Effect

The development finance landscape has also been reshaped by the emergence of large-scale, unrestricted philanthropic funding. BOMA’s \$10 million grant from MacKenzie Scott in 2021—the largest single gift in BOMA’s history—exemplifies a

¹¹ “ODA Levels in 2023 – Preliminary Data: Detailed Summary Note,” OECD, November 20, 2024, [https://one.oecd.org/document/DCD\(2024\)31/en/pdf](https://one.oecd.org/document/DCD(2024)31/en/pdf).

¹² United Nations Department of Economic and Social Affairs (UN DESA), *Financing for Sustainable Development Report 2023* (United Nations, 2023), <https://doi.org/10.18356/9789210026116>.

broader shift toward trust-based philanthropy that prioritizes flexibility, speed, and institutional strengthening. This type of funding is inherently episodic and cannot replace systemic or traditional financial mechanisms. Nevertheless, such funding streams enable organizations to expand and innovate, and it creates both an opportunity and a necessity to attract long-term investment from the private sector. This study capitalizes on this moment, analyzing how catalytic capital can facilitate sustainable, systems-level change.

Government Support as a Sustainability Imperative

Governments in low- and middle-income countries are increasingly seeking to integrate successful interventions into national systems to ensure scale, continuity, and fiscal sustainability. The World Bank emphasizes that public systems remain the primary vehicle for delivering large-scale poverty reduction and social protection interventions.¹³ BOMA's strategic shift toward government partnerships reflects this broader trend toward institutionalization. For achieving systems-level change at last-mile scale, government ownership is not an optional end state—it is a critical condition of sustainability.

Graduation as a Policy Instrument

Graduation approaches have evolved from pilot programs into internationally recognized strategies for tackling extreme poverty.¹⁴ Evidence from global research demonstrates that well-designed graduation programs can deliver sustainable improvements in income, assets, and resilience. The next step—embedding these strategies within national social protection systems and linking them to market opportunities—requires repositioning graduation as a policy instrument, not just an NGO model. This transition involves aligning graduation with government priorities, fiscal frameworks, and market systems.

Thin Markets and Climate Shocks

Last-mile communities in East Africa operate within a structurally constrained environment characterized by thin markets and high climate risk. Access to buyers, suppliers, and financial services is restricted due to limited infrastructure, low population density, and weak value chains. Sub-Saharan Africa faces the most severe climate impacts of any region—particularly drought and rainfall variability—and livelihoods dependent on agriculture and livestock are directly undermined by these shocks.

Structural Ceiling

Although graduation programs have shown positive results at the household level, gains in income and assets are difficult to maintain without integration into functioning markets and resilience to climate shocks. When program-level success does not translate into long-term economic mobility, households remain constrained by structural barriers — limited by weak policy incentives and a thin private sector

¹³ Floribert Ngaruko, *2023 Annual Report* (Africa Group 1 Constituency, The World Bank Group, 2023), <https://thedocs.worldbank.org/en/doc/e0f016c369ef94f87dec9bcb22a80dc7-0330212023/original/Annual-Report-2023.pdf>.

¹⁴ Aude de Montesquiou et al., *From Extreme Poverty to Sustainable Livelihoods: A Technical Guide to Graduation Approach* (Consultative Group to Assist the Poor (CGAP), 2014), 1–115, https://www.cgap.org/sites/default/files/graduation_guide_final.pdf.

rather than by their own capacity. Addressing this ceiling requires coordinated interventions across financing systems, markets, and policy.

Women and Youth at the Center

Women and youth in last-mile communities face intersecting vulnerabilities: social norms, limited access to assets and finance, exposure to climate risks, and restricted formal employment all compound each other. BOMA's REAP model shows that targeted investments in women and youth consistently drive improvements in income, food security, and resilience. But unlocking this potential at scale requires systemic change—improved market access, financial inclusion, and supportive policy environments—that goes beyond programmatic support.

This study places women and youth at the center of its analysis, recognizing them as both the most vulnerable populations and the most critical agents of economic transformation.

1.7 BOMA's System Role

BOMA's program model has demonstrated that, under the right conditions, graduation produces durable household-level gains in income, savings, and enterprise formation. What is not yet fully established—and what this research seeks to clarify—is how those gains link to broader market systems and private-sector participation.

This gap is significant. Durable scaling for BOMA depends on how well REAP graduates can access markets, suppliers, buyers, financial services, and financial technology. Household-level success, without integration into functioning market systems, produces isolated gains rather than systemic change. As a result, private-sector engagement is not an optional complement to BOMA's model—it is a structural requirement for the sustainability and scale of its impact.

NGOs as Market Institutions

In underserved markets, NGOs like BOMA serve four market functions that are difficult for private actors to replicate independently:

- **De-risking entry:** Training, savings groups, and asset transfers transform a high-risk, low-information community into a credit-ready customer base.
- **Demand aggregation:** Cooperative structures and savings groups lower transaction costs for private buyers and financial service providers.
- **Convening:** BOMA brings counties, donors, and private companies together around shared costs and aligned incentives.
- **Market intelligence:** BOMA's longitudinal household data enables outcome-based financing and confident market segmentation by private actors.

Crucially, these structural conditions must be better understood before BOMA can reliably identify approaches for scale. Greater coordination and potentially deeper

partnerships with government and private-sector actors will be central to any credible scaling strategy. The following sections of this report examine the evidence base, the enabling conditions, and the specific mechanisms through which this transition can be achieved.

2. Conceptual Framework & Impact Analysis

2.1 Theory of Change: From Policy to Resilient Livelihoods

This report's theory of change describes a system in which four mutually reinforcing elements—policy levers, NGO facilitation, private sector investment, and inclusive market development—must operate in alignment if resilient livelihoods are to be achieved at scale. No single element is sufficient; each depends on and amplifies the others.

2.1.1 Policy Levers: Creating the Enabling Environment

Policy frameworks are the upstream determinant of whether private sector engagement in last-mile markets is possible at all. In the absence of appropriate incentive structures, investment guarantees, and regulatory clarity, the commercial risks of operating in remote, climate-exposed, and infrastructure-poor environments will deter most private actors—regardless of the development case for engagement.

The core policy levers relevant to last-mile private sector engagement fall into four categories:

- (1) **Fiscal Incentives**—tax exemptions, investment allowances, and preferential procurement arrangements that reduce the cost of operating in targeted geographies or serving specified populations. Kenya's Special Economic Zones framework and Ethiopia's agro-industrial park incentive schemes offer partial precedents, though neither has been systematically applied to dryland contexts or pastoralist communities.
- (2) **Blended Finance Instruments**—first-loss capital facilities, development finance guarantees, and results-based financing mechanisms that allow risk to be shared between public, philanthropic, and commercial actors in ways that make otherwise marginal investments viable.
- (3) **Risk Mitigation Tools**, including index-based livestock insurance, weather derivatives, and disaster risk financing mechanisms that protect private investments against the climate shocks that make dryland markets inherently volatile.
- (4) **Regulatory and Governance Reforms**—land tenure clarification, cooperative legislation, financial service licensing frameworks, and data-sharing protocols—that reduce transaction costs and provide the legal infrastructure for market formalization.

BOMA's evidence base consistently affirms that the absence of these policy enablers is a binding constraint on scale. In the longitudinal assessment of REAP graduates,¹⁵ business performance was meaningfully correlated with market linkages and access to credit—but these linkages remained fragile and informal precisely because the policy environment had not created conditions for private actors to invest sustainably in providing them.

2.1.2 NGO Facilitation: Translating Policy Intent into Market Pathways

Policy frameworks create potential; NGOs translate potential into practice. This facilitation role is the domain in which BOMA and organizations like it have the clearest comparative advantage—and the domain most systematically undervalued in conventional accounts of how poverty graduation programs work.

The NGO facilitation role operates across four distinct functions:

- (1) **Market Intelligence and Matchmaking:** NGOs with deep community presence and established trust relationships reduce the information asymmetries that deter private actors. They know which households are ready for market linkages, which value chains are locally viable, which cooperatives have capacity to absorb private investment, and which regulatory obstacles need to be navigated. This knowledge is costly for private actors to acquire independently and functions effectively as a public good.
- (2) **De-risking.** BOMA's savings group infrastructure, performance monitoring systems, and mentoring networks reduce the practical risks associated with financial inclusion, credit provision, and buyer-supplier relationships in last-mile contexts. A fintech provider extending mobile credit to REAP graduates is extending credit to a known, documented, monitored population—a fundamentally different risk profile from an anonymous pool with no track record.
- (3) **Convening and Partnership Architecture.** The USAID NAWIRI program demonstrates what is possible when graduation programming is embedded in a multi-actor coalition including government, NGOs, private sector, and community structures. BOMA's role was not simply to deliver REAP for Nutrition; it was to bring its graduation model, community relationships, and evidence base into a broader system that included market systems support, nutrition-specific health services, and government capacity strengthening.
- (4) **Policy Influence.** NGOs that generate high-quality evidence—as BOMA has done through its longitudinal assessments, impact and learning reports, and participation in programs like USAID NAWIRI—are positioned to advocate for the policy changes that would create a more enabling environment for private sector engagement.

2.1.3 Private Sector Entry: Scale, Sustainability, and Growth Beyond Grants

Private sector entry is the mechanism through which the gains of graduation programming are scaled and sustained beyond the life of any individual intervention. The evidence suggests that private actors are more likely to engage in last-mile contexts

¹⁵ "A Longitudinal Assessment of REAP: A Follow-Up on Program Participants 3-5 Years After Graduation," The BOMA Project, June 2018, <https://www.boma.ngo/wp-content/uploads/2018/10/Longevity-Study-Exec-Summary.pdf>.

when three conditions are met: the policy environment provides meaningful incentives or risk mitigation; NGO facilitation reduces transaction costs and information gaps; and a critical mass of market-ready households exists capable of generating commercially viable transaction volumes.

BOMA's graduation model directly addresses the third condition. By building household economic capacity, savings discipline, and business management skills over a two-year program cycle, REAP creates a pipeline of market-ready smallholders, entrepreneurs, and financial service users. The REAP for Youth program's boot camp methodology—including competitive business plan pitching to private sector judges—explicitly anticipates market integration as a program outcome.

The specific private sector actors most relevant to BOMA's contexts include: agri-buyers and off-takers in livestock, dairy, and horticultural value chains; fintech providers and mobile money platforms; input suppliers and agro-dealers able to reach pastoral communities; and cooperative development services. BOMA's strategic review identified honey, dairy, and digital lending as priority value chains in Ethiopia; in Kenya, livestock trade, mobile money, and agricultural inputs represent the highest-potential areas.

The USAID NAWIRI evidence adds an important qualification: where more than 60 percent of households were enrolled in graduation programming, business competition could reduce income impact over time.¹⁶ This implies that private sector entry must be accompanied by value chain development that expands market opportunities—connecting graduation businesses to external buyers, input suppliers, and service providers—rather than simply concentrating similar businesses in the same local market.

2.1.4 Inclusive Markets: Durable Economic Participation

Inclusive markets represent the structural outcome in which market systems reliably provide economic opportunities for women, youth, and other historically excluded populations—not as a result of targeted programming but as a feature of how the market itself is organized.

The distinction between a *market linkage* and an *inclusive market* is significant. A market linkage is a connection—often facilitated, time-limited, and dependent on NGO support—between a specific household or group and a specific buyer or supplier. An inclusive market is a system in which these connections are self-sustaining, replicable, and accessible to new entrants without requiring continuous facilitation.

BOMA's evidence suggests that the pathway from market linkages to inclusive markets runs through several mechanisms. Savings groups and cooperative structures, when they formalize and register with government and financial institutions, create the organizational infrastructure for market participation that persists beyond program cycles. The REAP for Youth finding that participants in Isiolo were accessing government affirmative action funds through their registered savings groups illustrates this dynamic—the savings group becomes the portal through which an excluded population accesses existing government market inclusion instruments. Digital finance

¹⁶ USAID Nawiri, Mercy Corps, and Catholic Relief Services, "Improving Nutrition with the Graduation Approach: A Technical Learning Brief," December 2023, <https://www.mercycorps.org/sites/default/files/2024-02/usaids-nawiri-joint-technical-learning-brief-improving-nutrition-with-the-graduation-approach.pdf>.

integration similarly represents a structural market integration that does not depend on ongoing NGO facilitation.

2.1.5 Resilient Livelihoods: The Final Outcome

Resilient livelihoods—the capacity of households to sustain and grow their economic participation across the shocks and stresses inherent to life in the drylands—are the ultimate objective. They are not simply the absence of poverty or the presence of income; they represent a state in which households have the assets, relationships, skills, and market access to absorb shocks without falling back into destitution, and to take advantage of opportunities without requiring external support.

BOMA's longitudinal evidence demonstrates that well-implemented graduation programs can produce precisely this kind of resilience. Graduates three to five years after program exit show not only sustained income and savings but increased social standing, greater participation in community decision-making, stronger human capital investment for their children, and improved ability to manage emergencies through their own resources and networks.

The theory of change argues that household-level resilience can only achieve systems-level scale—reaching the hundreds of thousands of households still in extreme poverty across drylands—when it is embedded in a policy and market environment that supports and sustains it. Graduation programming without an enabling policy environment produces isolated pockets of resilience. An enabling policy environment without the graduation model's human capital investment produces market access that the poorest households cannot use. Private sector engagement without NGO facilitation flows to less-remote, less-risky populations. And market linkages without systemic inclusion produce fragile connections that collapse when program support ends.

The Feedback Loop

The most ambitious version of this theory of change is a scenario in which demonstrated market success creates the political economy for policy reform, which in turn deepens the enabling environment for further private sector engagement. For example, Kenya's trajectory toward government ownership of graduation programming, and Ethiopia's experiments in integrating graduation into federal social protection systems, represent early-stage movement along this feedback loop.

2.2 Analytical Lenses

This study uses five analytical lenses that together frame the evidence collection and interpretation strategy. Each lens directs attention to a distinct dimension of the challenge of scaling graduation programs within last-mile communities.

2.2.1 Market Systems

This lens examines which market conditions enable or hinder the integration of graduated households into sustainable value chains—specifically how infrastructure, digital finance, and private sector incentives interact with the economic activity of graduated households. The quantitative analysis presented in this report finds that

internet infrastructure has a significantly stronger effect on mobile money adoption in BOMA-active regions than in comparable areas without BOMA programming, suggesting that BOMA's complementary programming amplifies the return on infrastructure investment.

2.2.2 Policy Incentives

This lens identifies policy tools that shape private sector behavior regarding the provision of goods and services in low-income areas, including tax incentives, infrastructure subsidies, regulatory sandbox programs, and public-private coordination mechanisms. Analysis of mobile money adoption data reveals highly heterogeneous uptake across countries, even after controlling for infrastructure and household expenditure. As detailed in Section 4, these differences are attributable largely to variations in national policy environments

2.2.3 Gender and Inclusion

This lens examines how gender shapes economic agency and market access for women, youth, and refugees, and what program adaptations can reduce these structural gaps. Analysis presented in Section 4 shows that the gender gap in mobile money usage has effectively disappeared in BOMA operating areas, while persisting in non-BOMA regions. Female-headed households in BOMA areas also exhibit distinct expenditure patterns.

2.2.4 Climate Resilience

This lens examines how climate risks affect market incentives and household livelihood sustainability, and what strategies increase resilience for women-led and youth-led households under climate and economic shocks. In BOMA-active regions, the effect of household wealth and size on per-member expenditure is significantly weaker than in non-BOMA areas, indicating that BOMA's programs have measurably decoupled household consumption from traditional income-determining factors, a significant advantage when income is volatile due to climate change. When households rely less on wealth and household size to sustain consumption, they are better positioned to absorb economic and climate shocks.

2.2.5 Institutional Durability

This lens examines what types of institutional arrangements, cooperatives, savings groups, local government structures, remain functional after program exit and continue to support market participation. Across the BOMA-active areas surveyed, total annual household expenditure amounts to approximately **\$11.9 billion** (see Section 4), representing a significant commercial incentive for local institutions to maintain enabling conditions. The lens informs a qualitative inquiry into which governance configurations are most likely to be self-sustaining.

3. Methodology & Evidence Base

3.1 Qualitative

Locations: Kenya, Ethiopia, Uganda

As a multi-country research project, all data collection tools were adapted to reflect the differing policy environments, market maturity, private sector participation levels, and graduation programming models within each country. While core instruments were standardized for comparability, sample frames, respondent selection, and contextual emphasis have been tailored per country in recognition of distinct market systems, regulatory landscapes, climatic conditions, and gendered norms affecting women and youth in last-mile communities.

The sample and tool strategy follows a theory of change-driven approach, identifying data needs aligned to the Terms of Reference and mapping them to instruments that can generate evidence on (i) policy enablers and constraints to private sector investment, (ii) the role of NGOs in de-risking or convening markets, and (iii) conditions required for inclusive livelihoods at scale. Data will be triangulated across sources to enhance validity and capture the perspectives of government, private sector actors, communities, and BOMA teams.

Tool / Method	Target Stakeholders / Data Source	Purpose	Output Type
BOMA Documentation Review	Internal program evidence	Extract lessons on graduation, resilience, scaling & private sector pathways	Evidence summary incorporated into main report & grounding for policy brief
Policy & Literature Review	National/county policies, regulatory frameworks, global best practices	Identify policy levers enabling private sector engagement; understand comparative models	Section of comprehensive report, policy pathways chapter, inputs to policy brief & presentation slides
Secondary Quantitative Data Analysis	DHS, KNBS, CSA Ethiopia, Findex, mobile/financial inclusion data, investment datasets	Market sizing, cost-benefit modelling, infrastructure access gaps; evidence-based recommendations	Quantitative results for comprehensive report & graphics for brief & presentation

Key Informant Interviews (KIIs)	Government representatives, private sector actors, donors, NGOs	Barriers, incentives, partnership models, feasibility insights	Thematic analysis sections for report & quote-based insights in brief/deck
Cross-Country Case Study Deep Dives	Selected African/global comparators	Illustrate where policy unlocked investment; lessons for Kenya/Ethiopia/Uganda	Case study boxes in report & short callouts for brief/deck
Stakeholder & Value Chain Mapping	Government, private sector, funders, NGOs	Identify influence pathways & partnership opportunities	Direct output = Stakeholder Map Deliverable & integration in report & slides

3.2 Sample Approach & Respondent Groups by Country

Kenya

Sampling in Kenya was purposive and stakeholder-driven, covering relevant National Government Ministries involved in trade, SME development, agriculture, and digital finance. The sampling included county-level officials in arid and pastoralist areas where BOMA operates. Where possible, it encompassed private sector players in value chains such as livestock, agricultural inputs, and fintech providers, as well as women and youth groups who have graduated from REAP or similar programs.

Furthermore, the team engaged with bilateral and multilateral donors, development finance institutions, impact investors, and foundations involved in blended finance and risk-sharing mechanisms.

Ethiopia

The sampling strategy in Ethiopia mirrored that of Kenya, using a purposive, stakeholder-driven approach. It will include federal ministries focused on livelihoods, cooperatives, and climate adaptation.

The approach encompassed private actors in identified priority value chains, such as honey, dairy, and digital lending, alongside youth-led business groups, climate-vulnerable households, donors, and philanthropists supporting innovative projects, especially those based on blended finance.

Uganda

The sampling strategy in Uganda followed a purposive, stakeholder-driven approach, aligned with the frameworks used in Kenya and Ethiopia, while reflecting Uganda’s distinctive institutional landscape and strong government coordination role in development programming. However, due to scheduling constraints, we were unable to conduct KIIs in Uganda and gained insights from those based across East Africa.

Additionally, across all countries, research included Development advisory firms like Global Development Incubators, Chemonics, DAI, etc., and Monitoring and evaluation firms like Innovations for Poverty Action, Dalberg, Ipsos, IDinsight, Pan African Research Services, etc.

Instrument	Kenya	Ethiopia	Uganda
KIIs	8	2	1 *4 across East Africa
Case Studies	2 from Kenya & Bangladesh, India	1 from Ethiopia & Bangladesh, India	1 from Uganda & Bangladesh, India
Quantitative Datasets	KNBS, FinAccess, DHS	CSA, LSMS, Findex	CSA, LSMS, Findex
Policy materials	National, County	Federal, Regional	Federal, Regional

Scheduling Limitations

The outreach and KII plan envisaged 30–45 Key Informant Interviews across Kenya, Ethiopia, and Uganda, complemented by 3–6 case studies and analysis of national datasets. In practice, the research team identified 53 prospective respondents across the three countries, and initiated outreach to 37 of them through email, LinkedIn, and warm introductions and also facilitated by BOMA’s existing network.

Despite repeated follow-up attempts, including second and third email rounds, alternative point-of-contact routes, and re-engagement via LinkedIn, only 13 KIIs were ultimately completed within the data-collection window: eight in Kenya, two in Ethiopia, four at the regional level, and one in Uganda.

Several factors contributed to the lower-than-targeted conversion rate, including limited availability of senior government and donor respondents during the fieldwork period, organizational policies restricting participation in external research (one major donor, for instance, formally declined), and constraints around attribution that required follow-up negotiation. Where direct interviews were not possible, the team triangulated through documentary review, secondary data analysis, and insights from previously published interviews with the same institutions.

Findings should therefore be read with the recognition that the qualitative evidence base, while deep in certain segments, particularly Kenyan county government and donor perspectives, is comparatively thinner for Uganda and for private sector actors, where fewer respondents were reached within the available timeframe.

3.3 Quantitative Approach

The quantitative component of this study addresses three linked empirical questions through three distinct models. Model 1 – Digital Infrastructure and Mobile Money Adoption examines whether NGO facilitation amplifies the effect of digital connectivity on financial inclusion. Model 2 – Impact Evaluation of Graduation Programs on Household Income estimates the causal effect of BOMA's programs on household income and how that impact differs by gender. Model 3 – Market Sizing and Structural Analysis of Household Expenditure quantifies the total addressable market in BOMA-active areas and the stability of household demand. The analysis draws on a harmonized database that connects BOMA's programmatic monitoring data from seven distinct graduation programs across Kenya, Ethiopia, and Uganda with nationally representative household surveys and administrative data sources.¹⁷

Market Sizing and Structural Analysis (Model 1)

Quantitative analysis within Model 1 estimates total addressable market (TAM) opportunity from BOMA active geographies; compares household expenditure in BOMA active areas to similar non-BOMA areas (expenditure patterns). Aggregate annual household expenditure is summed and weighted from national household surveys into representative national totals.¹⁸ Separate weighted regressions are estimated for BOMA-active and non-BOMA regions to isolate the relationship between household wealth, size, female headship, and expenditure.

Impact Evaluation of Graduation Programs (Model 2)

In Model 2, the differences in differences (DiD) design was used to determine the causal effects of BOMA's graduation program on household income. The analysis combines participant level panel data from 7 BOMA programs and cross-sectional data collected through national household surveys that were used as control groups.¹⁹ The model includes an analysis of a pooled sample of 16,795 household wave observations with survey weights applied. The results from the model were reported as an approximate percentage change in monthly household income and the estimates were used to compute Social Return on Investment (SROI) ratios.²⁰

Digital Infrastructure and Mobile Money Adoption (Model 3)

¹⁷ The seven programs are: KUZA 2.0, SEED/REAP for Youth, NAWIRI/R4N, LIFT Northern Kenya, Lishe Bora (Kenya); EMIT (Ethiopia); and PSGP (Uganda). Control data are drawn from KCHS 2020–2021, ESPS/HICES Waves 4 and 5, and UNHS 2019/20 and 2023/24.

¹⁸ Annual household expenditure is defined as total household consumption (or a close proxy) multiplied by 12. For Kenya: $\text{padqexp} \times \text{adq_scale} \times 12$; for Ethiopia: total_cons_ann ; for Uganda: $\text{rexp30} \times 12$.

¹⁹ The difference-in-differences design compares the change in income over time between treatment and control groups, isolating the effect of BOMA's programs from secular trends.

²⁰ SROI is computed as the present value of incremental income divided by per-participant cost, using a three-year horizon and a 5% discount rate. Cost figures are provisional.

In Model 3, we analyze how internet use affects how people use mobile money. We also examine whether BOMA's activities have strengthened the relationship between mobile money and digital infrastructure through an increase in how much individuals use the internet. Data are aggregated by geographic unit and sex-disaggregated.²¹ Weights were applied separately to estimate separate regressions for both groups of BOMA-active individuals and non-BOMA individuals. The coefficients that are associated with the use of the internet represent the marginal effect that internet use has on the adoption of mobile money.

The analyses of the quantitative work were completed using Stata 18. The results of the analyses used robust standard errors in order to provide a more reliable estimate. Survey weights were also applied throughout the analyses. Additional details about how the variables were created, model specifications, weighting procedures, robustness checks, geographic matching, and other statistical information are provided in [Annex D: Technical Annex](#).

3.4 Limitations

All research designs involve making trade-offs between different methods; this study is no different. The limitations described below apply across all methods used in this analysis (quantitative and qualitative). Also, since this study uses data from three countries, it has inherent difficulties in making conclusions about other nations based on the data in this research. Recognizing these limitations doesn't indicate a deficiency of the study but is an important step in terms of methodological transparency and a reference for using information from this study appropriately.

4. Market Analysis and Impact Assessment

This analysis will seek to answer three questions:

- (1) What is the total addressable market for BOMA's geographic area(s), and how do households in that area spend their money? (*Section 4.1*)
- (2) How much do BOMA's graduation programs raise household income? And how does that impact men and women across the three countries? (*Section 4.2*)
- (3) What is the relationship between digital infrastructure and BOMA's programming, in terms of facilitating financial inclusion, and what does this tell us about the complementarity between public investment in infrastructure and NGO facilitation? (*Section 4.3*)

4.1 The Size and Structure of Last-Mile Markets

One of the greatest impediments to private sector involvement in underserved and remote communities is the belief that there isn't enough demand to warrant making a commercial investment. The analysis of BOMA's operating geographies that was

²¹ Mobile money usage is measured as the percentage of adults reporting use in the past 30 days (or account ownership for Ethiopia). Internet usage is the percentage of the population with internet access.

performed for this analysis challenges that belief directly. According to BOMA’s analysis, the aggregate household spending in those areas exceeds **\$11.9 billion** annually (USD equivalent). Of that amount **\$3 billion** comes from female-headed households (see Table 4.1).

This data illustrates that the spending power of the communities that have often been mischaracterized as “non-viable” or “empty” has been understated.

Table 4.1: Total Annual Household Expenditure in BOMA-Active Areas²²

Country	Segment	Total Annual Expenditure (Local Currency)	USD Equivalent
Kenya	All BOMA households	KES 635 billion	\$4.88 billion
	Female-headed BOMA households	KES 208 billion	\$1.60 billion
Ethiopia	All BOMA households	Birr 901 billion	\$6.93 billion
	Female-headed BOMA households	Birr 174 billion	\$1.34 billion
Uganda	All BOMA households	UGX 395 billion	\$107 million
	Female-headed BOMA households	UGX 107 billion	\$29 million
Total	All BOMA households		\$11.9 billion
	Female-headed BOMA households		\$3.0 billion

Note: USD conversion uses approximate exchange rates of 130 KES/USD, 130 birr/USD, and 3,700 UGX/USD. Totals are weighted to reflect population estimates based on survey sampling weights.

In addition to the large aggregate market size, BOMA-active economies exhibit an interesting structural feature: the relationship between household wealth and household consumption or spending is significantly less correlated in BOMA-active economies than in the non-BOMA economies.

The relationship can be seen in terms of a household asset-based wealth index. A one-standard-deviation increase in this wealth index is associated with an increase of approximately 66,778 local currency units in annual household expenditure in BOMA-active economies, compared with 205,752 units in non-BOMA economies.²³

²² Kenya: Samburu, Isiolo, Laikipia, Kajiado, Makueni, Taita-Taveta, Kitui, Turkana, West Pokot, Baringo, Mandera, Wajir, Garissa, Tana River, Marsabit, Kisumu, Murang’a.

Ethiopia: Oromiya region, where BOMA’s Green REAP and other programs are implemented (region code 4 in ESPS). Uganda: Sub-regions Karamoja and West Nile, which contain the districts where BOMA operates.

²³ Both coefficients are statistically significant at $p < 0.001$. Full regression results are in Annex D.

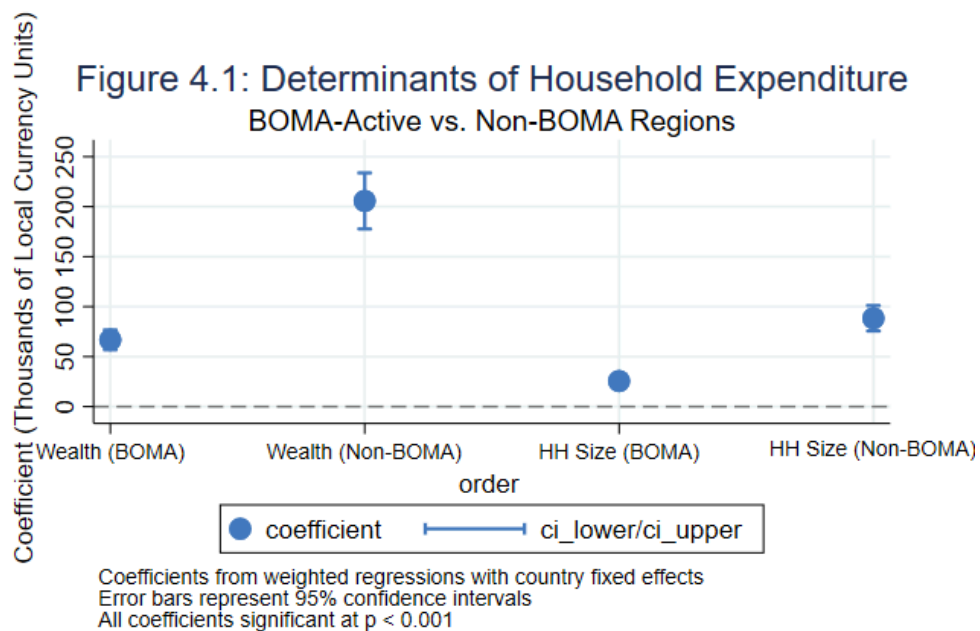
Benefit of BOMA-active economies

In terms of how this can affect businesses and their demand/supply relationships for essential goods and services: retailers and service providers in BOMA communities are likely to see stable and predictable demand for their products regardless of changes in household wealth, thus reducing the potential for commercial risk in these types of markets compared with more traditional markets.

The relationship between wealth and household size is illustrated in **Figure 4.1**, which compares the coefficients for BOMA-Active and Non-BOMA sample groups. The two sample groups' confidence intervals do not overlap for either coefficient, thus indicating a statistical difference.

BOMA's Impact

Through BOMA's programming (business training, saving group formation, and continuing mentorship) the traditional poverty determinant of expenditure is being separated from that of household expenditure as well and allowing businesses to have a more stable customer base to serve in their respective communities.



At the same time, there are still large gender gaps in expenditures. In BOMA regions, female-headed households have an annual expenditure approximately 18,266 local currency units lower than male-headed households (after controlling for wealth and household characteristics), and this gender expenditure gap is statistically significant.²⁴

²⁴ The coefficient is -18.27 ($p = 0.034$). See Annex D.

The same gender expenditure gap is not observed in non-BOMA regions, which suggests that **while BOMA programming may reduce other gender gaps (discussed below), it does not automatically create gender parity in total expenditure levels; therefore, continued focus is needed on gender intentionality in the design of programs, especially related to asset building and profit generation for women entrepreneurs.**

4.2 The Causal Impact of BOMA’s Graduation Programs on Household Income

Demand has been established by a market sizing analysis; therefore, the next logical question is whether the programs offered by BOMA provide sufficient benefit to households to create a sustainable and growing market for the products and services that BOMA seeks to connect to last-mile communities. To answer this question, the analysis employs a multi-comparison difference-in-differences design using national probability survey data to compare the trajectory of income between households participating in BOMA programs and a statistically matched control group drawn from the same national surveys.²⁵ The analysis pools data from seven distinct BOMA programs across Kenya, Ethiopia, and Uganda, yielding a total of 16,795 household-wave observations.

The estimated results demonstrate statistically significant increases in income attributable to BOMA’s graduation programming across all defined participant groups. The percentage impacts presented in Table 4.2 are derived from a log-linear difference-in-differences model; the coefficients can be interpreted as approximate percentage changes in monthly household income.²⁶

Table 4.2: Estimated Income Impacts of BOMA Graduation Programs

Group	Baseline Monthly Income (LCU)	Impact (%)	Implied Monthly Gain (LCU)
Kenya Men	5,404 KES	+205%	11,078 KES
Kenya Women	5,404 KES	+92%	4,972 KES
Ethiopia Women	4,679 birr	+38%	1,778 birr
Uganda Men	205,128 UGX	+156%	319,999 UGX
Uganda Women	205,128 UGX	+43%	88,205 UGX

Note: Baseline incomes represent the arithmetic mean for the control group in each country at baseline. Impact percentages are derived from the coefficients of a log-linear difference-in-differences model (δ_1 for men, $\delta_1 + \delta_2$ for women) and can be interpreted as approximate percentage changes. All estimates are statistically significant at $p < 0.001$.

²⁵ The control group is described in Section 3.2 and Annex D.

²⁶ The dependent variable is $\ln(\text{monthly household income} + 1)$. See Annex D for full specification.

Several patterns merit attention. **First, the income gains are substantial across all groups, ranging from +38 percent for women in Ethiopia to +205 percent for men in Kenya.** The absolute monthly gains are economically meaningful in each context, for instance, Kenyan women see their monthly household income rise by nearly 5,000 KES, while Ugandan men gain nearly 320,000 UGX per month.

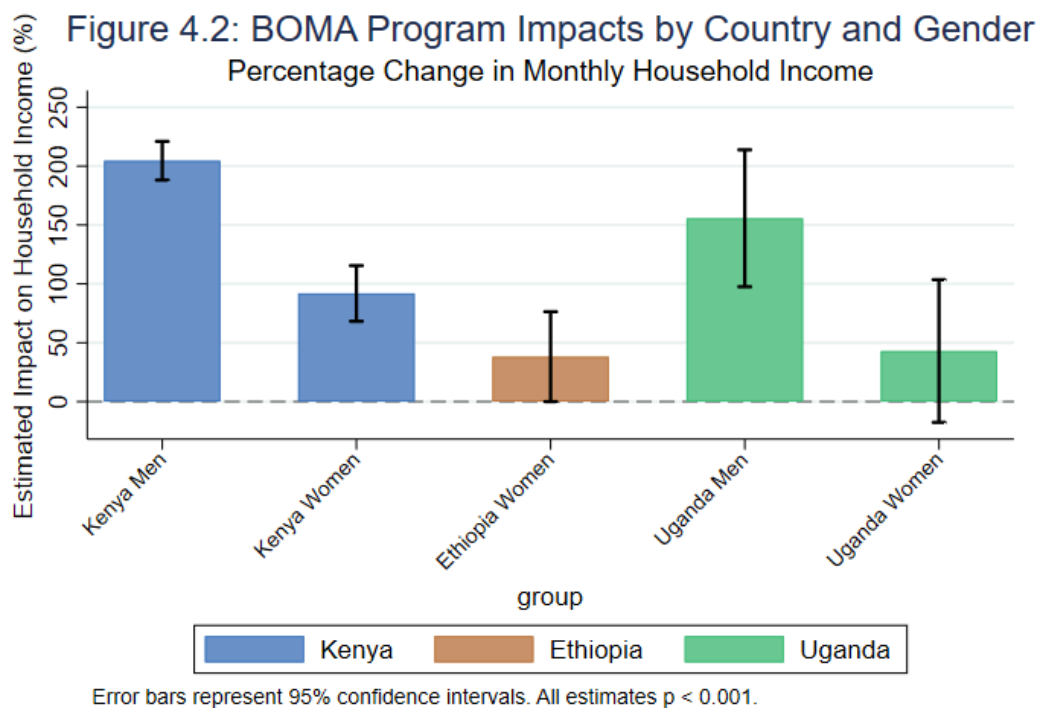
Second, **women in Uganda experience a notably larger absolute gain than women in Kenya or Ethiopia** (over 88,000 UGX per month), consistent with Uganda's lower baseline and the specific adaptations of the PSGP program in refugee-hosting and pastoralist communities.

Third, and critically, **men in both mixed-gender programs, KUZA in Kenya and PSGP in Uganda, realize substantially larger percentage gains than their female counterparts.** In Kenya, the male impact (+205%) is more than double the female impact (+92%); in Uganda, the male impact (+156%) is nearly four times the female impact (+43%).

The larger percentage gains for men do not imply that women benefit less in absolute terms. Rather, they reflect several intersecting factors. Baseline differences are likely at play: if male participants start from lower income levels relative to the control group mean, the same absolute gain translates into a higher percentage. Structural gender constraints in dryland economies, including restricted mobility, time poverty, and limited access to livestock markets, may enable men to scale certain types of businesses more rapidly. The pooled gender-gap coefficient ($\delta_2 = -1.127$, $p < 0.001$) confirms that, on average, female participants experience a smaller log-income gain than male participants across the pooled sample, even after controlling for household size and country context.²⁷ This finding underscores both the effectiveness of BOMA's model for all participants and the need for continued gender-intentional program adaptations, such as targeted business development support for women, enhanced market linkages in female-dominated value chains, and interventions that address mobility and time-use constraints.

The effects of these interventions are illustrated graphically in **Figure 4.2**, which displays the percentage change for each subgroup together with 95 percent confidence intervals. The figure highlights both the overall effectiveness of BOMA's graduation model and the heterogeneity of results across countries and genders.

²⁷ The pooled gender-interaction coefficient is -1.822 (robust SE = 0.078).



This analysis translates the economic benefits of increased income into program efficiency through the Social Return on Investment (SROI) framework. SROI is calculated as the present value of incremental household income attributed to the program divided by the per-participant program cost, using a three-year horizon and a five percent annual discount rate.²⁸ The results, presented in Table 4.3, range from 1.0:1 for women in Ethiopia to 5.6:1 for men in Kenya. Five of the six reported SROI ratios meet or exceed 1.0, indicating that BOMA’s programs generate economic benefits that equal or surpass their costs (i.e., positive or break-even net present value). The SROI for women in Ethiopia is exactly 1.0:1, meaning the program recovers its investment but does not produce a net surplus under the current provisional cost estimate.

Table 4.3: Estimated Social Return on Investment (SROI)²⁹

Group	Annual Gain (USD)	PV of Gains (USD)	Cost (USD)	SROI Ratio
Kenya Men	1,022	2,783	500	5.6 : 1
Kenya Women	459	1,250	560	2.2 : 1
Ethiopia Women	164	447	450	1.0 : 1
Uganda Men	1,038	2,827	560	5.0 : 1
Uganda Women	286	779	560	1.4 : 1

²⁸ SROI methodology is described in Annex D. Costs are Average estimates.

²⁹ SROI calculations are based on the exact DiD coefficients reported in Section 4.2.

Note: Costs are Average cost per participant. The present value factor for a three-year annuity at a five percent discount rate is 2.723. Exchange rates used: 130 KES/USD, 130 birr/USD, and 3,700 UGX/USD.

The SROI ratios reinforce the pattern observed in the impact estimates: men in Kenya and Uganda generate the highest returns on investment (5.6:1 and 5.0:1, respectively), while women in Kenya (2.2:1) and Uganda (1.4:1) show positive but more modest returns. The Ethiopia women’s ratio of approximately 1.0:1 reflects both a lower absolute income gain and a higher program cost (\$450). These figures provide a robust, evidence-based foundation for discussions with donors, investors, and governments regarding the economic return generated by investments in BOMA’s graduation programs, and they point clearly to the opportunity to further optimize program design for women entrepreneurs.

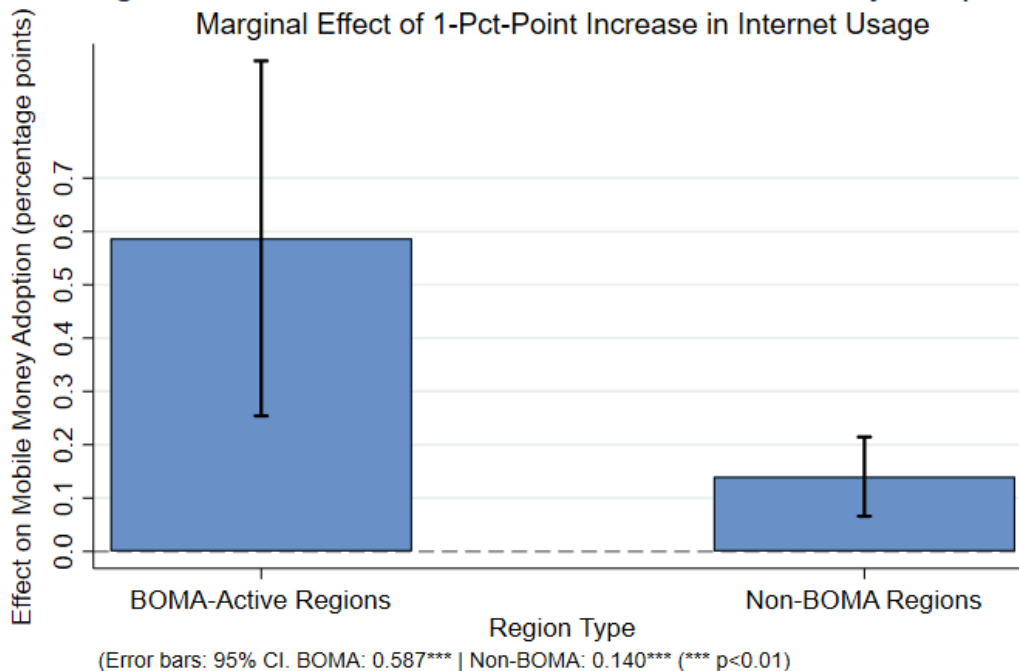
4.3 Infrastructure, Inclusion, and the Multiplier Effect of NGO Facilitation

The empirical analysis looks at the role of digital infrastructure (measured via internet use) in the adoption of mobile money as an indicator of engagement and access to finance and our ability to participate as citizens within the market.

A major conclusion is that the influence of internet connectivity on mobile money adoption is more than four times larger in areas that have received BOMA support than in comparable areas without BOMA programming. In BOMA-supported communities, a one-percentage-point increase in the share of the population with internet access is associated with a 0.587 percentage-point increase in mobile money usage ($p = 0.001$). In contrast, in non-BOMA communities, the same increase in connectivity yields only a 0.140 percentage-point increase in mobile money usage.³⁰ The difference between the two communities is shown in **Figure 4.3**, which plots the infrastructure coefficients for BOMA-active (0.587) and non-BOMA (0.140) regions with their 95% confidence intervals. The effect is more than four times larger in BOMA areas, and the confidence intervals do not overlap, indicating a statistically significant difference.

³⁰ Both coefficients are statistically significant at $p < 0.01$. See Annex D for full regression results.

Figure 4.3: Infrastructure Effect on Mobile Money Adoption



The differential is not due to higher level of baseline connectivity or wealthier households in the BOMA regions; the regressions account for both expenditure and country fixed effects. Instead, this indicates that the complementary programs created by BOMA, such as financial literacy training, creation of savings groups and continued mentoring, are providing additional return on those public investments made toward digital infrastructures. Therefore, while connectivity itself is necessary, it will never be enough alone; it must be coupled with continued development of human capital through an investment in digital infrastructures to realize true improvements in financial inclusion.

Another finding from the research is that there is no significant difference between men and women’s use of mobile money in BOMA program locations, while there are significant differences in places without BOMA Programs. Specifically, in BOMA locations, gender gaps in the use of mobile money have a negligible or zero mean effect. In contrast, in areas with no BOMA presence, women are 4 percentage points less likely than men to utilize mobile money ($p < 0.001$). This backs up BOMA’s previous findings that gender-inclusive (or gender-intentional) programming results in bridging the digital divide and increasing women’s access to digital services (via mobile connectivity).

Finally, the findings reveal that **national policy plays an important role in the success of mobile money**. Even after controlling for infrastructure, expenditures and the gender of users, **Ethiopia and Uganda’s mobile money use are behind Kenya’s by around**

52.5 and 32.2 percentage points, respectively. ³¹ **Kenya's earlier regulatory stance (light touch) for mobile money leaves a lasting effect on the overall use of mobile money.** This approach facilitated both NGO programming and private-sector innovation to thrive. Ethiopia and Uganda must now develop the necessary infrastructure and create regulatory and policy environments for digital finance to thrive.

This analysis of community performance is limited to the last-mile communities where BOMA operates and are spatially stable. Events affecting access to the private sector include security issues and the impacts of active conflict. The leveling of planned programming via BOMA in the Simien Mountains of Ethiopia has been halted due to conflict. (BOMA purposefully avoids working in any community currently involved in armed conflict). Since there is no available reliable source of sub-national conflict data that conforms with the administrative units or the time frame of this analysis, and since region fixed effects fully account for time-invariant regional characteristics, conflict variables will not be included in the regression results. Therefore, the results should be interpreted to apply only to the last-mile communities as far as they represent very difficult to reach or underserved populations, but not as places experiencing active hostilities. While this restriction does not question the validity of the analyses performed for these study areas, the enabling conditions available in the study area (infrastructure development, NGO facilitation, and supportive government policies) are inadequate to support active conflict communities in the absence of safety and security.

4.4 Summary of Empirical Findings

The three types of empirical analysis included in this section show that all combined create a strong base of knowledge to understand the opportunities and constraints of BOMA's outreach. There is a large total addressable market for every area that is BOMA active (\$11.9 billion yearly), as well as comparatively higher levels of stability than expected based on traditional methods of assessing risk. BOMA's graduation programs produce significant income increases, which can be measured over all cases using statistically valid SROI ratios that are greater than one. In addition, digital infrastructure investments produce greater returns when layered with community facilitative capacities similar to those offered by BOMA and are significantly higher for females.

While the analysis shows that there is a gap between men and women's gain and spendable income proportionately, it also appears that BOMA has done a great job with their model, but we still have some improvements to make on how BOMA can affect female entrepreneurs. The impact of fixed country effects from mobile money demonstrates how national policy continues to play an important role; therefore, Improvement to programs in Kenya and Ethiopia has a positive impact on overall SROI ratios for women.

³¹ The Ethiopia fixed effect is -0.525 ($p < 0.001$) and the Uganda fixed effect is -0.322 ($p < 0.001$) in the BOMA-active regression. Kenya is the omitted baseline category. These coefficients represent percentage-point differences in mobile money usage after controlling for infrastructure, expenditure, and gender.

5. Findings: Policy, Markets, and the NGO Bridge

5.1 The Policy Environment: What Enables and What Blocks Private Investment

5.1.1 The Architecture of Enabling Policy and Its Limits

Policy frameworks do not simply regulate markets—they determine whether markets exist at all in remote and climate-vulnerable communities. In East Africa’s drylands, the policy landscape has evolved considerably over the past decade, producing frameworks that are increasingly well-intentioned but inconsistently implemented and structurally misaligned with the specific conditions of last-mile economies.

Understanding this environment requires distinguishing between three interacting policy categories: social protection frameworks, which establish the safety net infrastructure that graduation programming is designed to complement; SME and agriculture policy, which governs the regulatory and financial conditions for enterprise development; and investment incentive structures—including tax, trade, and blended finance policy—which determine the commercial viability of operating at scale in underserved markets. Each of these policy domains exhibits a common pattern in both Kenya and Ethiopia: formal commitment at the national level has not translated into the operational changes needed to create genuine last-mile investment environments.

5.1.2 Social Protection Frameworks: An Incomplete Ladder

Kenya’s social protection architecture has undergone substantial reform in recent years. The Kenya Social Protection Policy of 2023³² represents a significant commitment, framing social protection as encompassing the full set of policies, programs, interventions, and legislative measures aimed at cushioning Kenyans against poverty, vulnerability, exclusion, and shocks throughout their life cycles. The Social Protection Bill of 2024 seeks to give legislative effect to these commitments, establishing a coordinated framework aligned with SDG Target 1.3.

Yet significant structural gaps persist. Despite policy ambition, coverage of Kenya’s National Safety Net Program has declined—from 350,000 households in 2016/17 to 280,000 in 2022/23.³³ The ILO estimates that only 12 percent of Kenya’s population was reached by targeted non-contributory programs as of 2023,³⁴ against a backdrop where 13 million children live in poverty. The informal economy, which comprises 83.6 percent of Kenya’s workforce, remains inadequately covered by contributory mechanisms—Kenya adopted a strategy for extending social protection to informal and rural workers only in October 2023.

³² Government of Kenya, Ministry of Labour and Social Protection, *Kenya Social Protection Policy* (Nairobi: Government of Kenya, 2023),

<https://www.socialprotection.go.ke/sites/default/files/Downloads/KENYA%20SOCIAL%20PROTECTION%20POLICY.pdf>.

³³ Social Protection Secretariat, Government of Kenya, *National Safety Net Programme Coverage Data*, 2023.

Note: Coverage declined from 350,000 households in 2016/17 to 280,000 in 2022/23.

³⁴ International Labour Organization, *World Social Protection Report 2022–24* (Geneva: ILO, 2023),

https://www.ilo.org/sites/default/files/2024-09/WSPR_2024_EN_WEB_1.pdf.

Estimate that only 12% of Kenya’s population was reached by targeted non-contributory programs as of 2023.

This matters directly for BOMA's programming context. Graduation models like REAP are most effective when they operate as a bridge between social protection and the market—receiving households from safety net programs and transitioning them toward economic inclusion. This adaptation is only possible when the social protection system itself is functional, adequately resourced, and coherently connected to livelihoods programming. When coverage is declining and coordination between social assistance and economic inclusion is weak, graduation programs are left to perform functions the social protection system was supposed to have already delivered—at a cost that reduces their comparative advantage as market-entry facilitators.

Ethiopia's social protection landscape presents a parallel set of opportunities and constraints. The system remains heavily dependent on external donor funding and vulnerable to fiscal and humanitarian shocks. Without a coherent single registry connecting social protection beneficiaries to economic inclusion programs, households can fall through the gaps between safety net receipt and market participation, remaining dependent on external support without progressing toward self-sustaining livelihoods.

The Missing “Graduation Bridge”

The critical policy gap in both Kenya and Ethiopia is the absence of a “graduation bridge” in official social protection design—a structured, sequenced pathway through which safety net recipients are systematically connected to livelihoods programming, market linkages, and ultimately private sector engagement. Kenya's policy rhetoric increasingly acknowledges the need for such a bridge, but the operational architecture to deliver it remains underdeveloped.

5.1.3 SME and Agriculture Policy: Structural Barriers Beneath the Reform Rhetoric

Both Kenya and Ethiopia have invested substantially in formal policy frameworks intended to support smallholder agriculture and SME development. Ethiopia's National Agri-Finance Implementation Roadmap (NAFIR), for instance, represents a recent effort to address the structural financing gap constraining agricultural enterprise development.³⁵

The scale of that gap is striking. Ethiopia's agriculture sector constitutes 36 percent of GDP, employs approximately 64 percent of the workforce, and accounts for 79 percent of exports—yet as of 2023–24, just 2 percent of the total potential demand for agri-finance was fulfilled. Financial institutions report laborious compliance with KYC, credit assessment, and consumer protection requirements; farmer loan applications can take weeks or months. The regulatory burden of financial compliance creates precisely the kind of high-transaction-cost environment that deters private sector engagement—and these costs fall disproportionately on the smallest, most remote, and most vulnerable enterprises.

Ethiopia's private sector engagement in agriculture also faces a structural constraint from the historically dominant role of state enterprises in key input markets. It is difficult

³⁵ Government of Ethiopia, Ministry of Agriculture, *National Agri-Finance Implementation Roadmap (NAFIR)* (Addis Ababa, 2023), <https://ethiopiafinanceforum.com/wp-content/uploads/2025/05/Agri-Finance-Presentation.pdf>.

for new market entrants to build a distribution network that can compete with that of the Ethiopian Seed Enterprise.³⁶ While recent liberalization reforms have created more space for private actors, regulatory uncertainty and residual market dominance continue to raise entry costs and compress margins—particularly in value chains relevant to graduation program graduates such as livestock, dairy, and agricultural inputs.

Land tenure reform represents a meaningful bright spot: the FCDO-funded LIFT program distributed over 14 million geo-referenced land certificates to more than 6.5 million farmers between 2014 and 2021,³⁷ enabling smallholder farmers to access agricultural loans using land certificates as collateral for the first time. By 2024, the resulting loan product had expanded to 15 microfinance institutions, disbursing 53,000 loans with a total value of ETB 2.4 billion.³⁸ This trajectory illustrates both what is possible when land tenure reform is combined with financial product development—and how slowly structural policy change translates into market access for the rural poor, even when the reform itself is successful.

Kenya's SME policy environment exhibits a different set of strengths and weaknesses. The World Bank has supported Kenya in adopting PPP laws, regulations, and guidelines under the Maximizing Finance for Development approach, and the Infrastructure Finance and PPP Project has mobilized approximately \$899 million toward a \$1.25 billion target.³⁹ However, this progress has been concentrated in infrastructure sectors—roads, health, water—rather than in the agricultural value chains and SME finance markets most relevant to women and youth in ASAL communities.

Kenya's county governance architecture creates an additional layer of complexity. Devolution has decentralized significant resources and mandates to county governments, some of which—particularly in BOMA's operating counties of Marsabit, Isiolo, and Turkana—have begun to develop county-level investment promotion frameworks. County affirmative action funds, which BOMA's REAP for Youth participants in Isiolo accessed through their registered savings groups, represent an underutilized policy instrument. But county-level policy capacity remains highly variable, and the absence of consistent cross-county frameworks for private sector engagement in ASAL economies limits the impact of individual county initiatives.

5.1.4 The Investment Incentive Gap

Perhaps the most consequential policy failure in both Kenya and Ethiopia is the absence of targeted investment incentive structures for last-mile private participation. Africa's SDG financing gap is equivalent to 0.2 percent of the value of global financial

³⁶ GFRAS – Global Forum for Rural Advisory Services, *Ethiopia Country Report: Private Sector in Agricultural Extension*, 2022, <https://www.g-fras.org/en/world-wide-extension-study/africa/eastern-africa/ethiopia.html>.

³⁷ FCDO, *Land Investment for Transformation (LIFT)*, final report, 2021,

<https://www.dai.com/our-work/projects/ethiopia-land-investment-transformation-lift>.

Over 14 million geo-referenced land certificates were distributed to more than 6.5 million smallholder farmers between 2014 and 2021.

³⁸ Cadmus Group and USAID, *LIFT Final Evaluation*, 2024.

As of 2024, the new loan product had expanded to 15 microfinance institutions, disbursing 53,000 loans totalling ETB 2.4 billion.

³⁹ World Bank, *Infrastructure Finance and PPP Project, Kenya: Progress Report*, 2023,

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099021226180537258>.

The project has mobilized approximately \$899 million toward a target of \$1.25 billion in private capital.

assets—the resources exist, yet the current global financial architecture has not delivered them.⁴⁰ In both countries, the formal incentive landscape for private investment is oriented toward large-scale industrial and infrastructure projects rather than toward the small-scale, value-chain oriented, and community-embedded investment models that dryland economies require.

Tax incentive frameworks in Kenya and Ethiopia include provisions for export-oriented enterprises, agro-industrial parks, and special economic zones—but none are specifically designed to reward private sector engagement with women’s enterprises, cooperative structures, or last-mile financial inclusion. The UNDP Africa Investment Insights Report found that 42 percent of SDG-aligned investment opportunities in Eastern Africa require blended financing models that include risk-sharing arrangements, and only 31 percent are suitable for standard commercial financing.⁴¹ Yet the blended finance instruments available in Kenya and Ethiopia are primarily oriented toward large-scale transactions, with minimum deal sizes structurally incompatible with the transaction volumes and enterprise sizes characteristic of last-mile markets.

This mismatch is the core policy failure this research set out to examine. It is not that governments in Kenya and Ethiopia are indifferent to inclusive private investment—the policy rhetoric is abundant. It is that the operational translation of that rhetoric into appropriately designed, appropriately targeted, and adequately resourced incentive frameworks has not occurred.

5.2 Private Sector Incentives

5.2.1 The Commercial Logic of Avoidance

Understanding why private sector actors do not invest in last-mile markets requires moving beyond the general observation that markets are thin and risks are high. Three distinct but interrelated barriers drive private sector absence: perceived and actual risk levels that exceed acceptable thresholds given available returns; structural cost and margin characteristics that make last-mile operations commercially unviable without external support; and information failures that prevent firms from accurately assessing market opportunity even when it exists.

A crucial distinction needs to be drawn between genuine risk and perceived risk. Distorted perceptions of risk have led to higher costs for African borrowers and investors—when people don’t understand a risk, they avoid it, and the absence of granular market data means investors apply conservative risk premia that may significantly overstate the true probability of loss. This information problem is not unique to sovereign debt markets; it applies equally to decisions about whether to extend agri-finance to a smallholder enterprise, whether to stock a new product in a rural retail outlet, or whether to establish a mobile money agent network in a remote pastoral community.

⁴⁰ Convergence Finance, *State of Blended Finance 2023* (Toronto: Convergence, 2023), <https://www.convergence.finance/resource/state-of-blended-finance-2023/view>.

⁴¹ United Nations Development Programme (UNDP), *Africa Investment Insights Report* (New York: UNDP, 2023), <https://www.undp.org/africa/investment-insights>.

Finds that 42% of SDG-aligned investment opportunities in Eastern Africa require blended financing structures.

Research with small retailers in western Kenya found that insurance against product losses increased stocking by 50 percentage points, with the largest effects among shops whose owners exhibited high personal risk aversion.⁴² Only 30 percent of firms had tried stocking any new product in the past year. This finding has important implications: the barrier is not primarily insufficient returns but excessive sensitivity to downside risk—a sensitivity that can be addressed through appropriately designed insurance, guarantee, and risk-sharing instruments without necessarily requiring above-market returns.

5.2.2 The Margin and Scale Problem

Even when risk perceptions are corrected, the structural economics of last-mile operations present genuine commercial challenges. Serving dispersed, low-income populations involves high per-transaction costs relative to transaction values. Infrastructure deficits raise logistics costs. Low population density means that distribution networks must cover large geographic areas to achieve commercially viable volumes. And the purchasing power of target populations remains constrained by the seasonal and climate-driven income volatility characteristic of pastoral and agro-pastoral livelihoods.

Aceli Africa's research on agricultural lending in sub-Saharan Africa found that lending to agriculture is limited because of low margins and high opportunity costs—representing a \$65 billion annual financing gap for agricultural SMEs.⁴³ To address this, Aceli developed origination incentives for rural agricultural loans ranging from \$25,000 to \$500,000, effectively subsidizing loan origination costs to make small agricultural loans commercially viable for lenders. This model—using targeted subsidies to address the structural cost problem rather than the risk problem—represents a distinct policy lever with different distributional implications.

For BOMA's operational context, the margin and scale problem manifests most acutely in financial services and agricultural value chains. The digital finance gap between Kenya—where mobile money transactions reached US\$109.9 billion in 2022—and Ethiopia, where the comparable figure was only \$470 million,⁴⁴ reflects not just different levels of infrastructure development but different regulatory and competitive market structures. In agricultural value chains, the livestock, dairy, and honey value chains most relevant to ASAL communities require aggregation infrastructure—collection points, cold storage, quality testing, transport coordination—that individual enterprises cannot finance and that the state has not systematically provided.

The USAID NAWIRI evidence offers a concrete illustration of partial solutions. Graduation businesses began placing bulk orders to cut transport costs, enabling availability of items that a single rural shop would not typically afford to stock—in some locations creating vibrant markets within communities where the nearest market was previously seven kilometers away. The aggregation function, explicitly supported through savings

⁴² Poverty Action Lab (J-PAL) citing Pascaline Dupas and Jonathan Robinson (2013) research on Kenyan shop-owners; referenced in randomized controlled trial results cited in Section 4.2.1.

⁴³ Alliance for a Green Revolution in Africa, (AGRA), *Mobilizing Agricultural Finance: Toward a Common Language Between Lenders and Agri-SMEs in Sub-Saharan Africa* (Nairobi, AGRA, 2021), <https://agra.org/wp-content/uploads/2021/02/Mobilizing-agricultural-finance-2021-02.pdf>.

Estimates a \$65 billion annual financing gap for agricultural SMEs across sub-Saharan Africa.

⁴⁴ National Bank of Ethiopia, *Annual Report on Digital Financial Services and Mobile Money* (Addis Ababa: NBE, 2023), https://nbe.gov.et/wp-content/uploads/2024/04/EDPC_EDPP.pdf.

group infrastructure and cooperative development, is precisely what transforms scattered individual enterprises into commercially viable partners for private sector actors.

5.2.3 Information Failures and Market Discovery Costs

The third barrier to private sector entry—and the one most directly amenable to NGO facilitation—is the cost of market discovery. For a private firm considering whether to extend its distribution network, financial product range, or supply chain into an ASAL community, the investment required to assess market viability, identify reliable counterparties, navigate regulatory and community norms, and establish operational infrastructure is substantial. These are sunk costs that must be incurred before any return can be generated—and the uncertainty about whether returns will materialize makes this investment difficult to justify on commercial grounds alone.

Research by the Brookings Institution notes that the frictional costs of project investments—ranging from project preparation time to market, to policy uncertainty—often dominate private capital mobilization decisions. Generic guarantee facilities that do not pay special attention to these factors simply add to private-sector returns without altering investment volume flows in a material way.⁴⁵

This is where BOMA's role as a market intelligence provider becomes commercially significant. BOMA's Taroworks and Salesforce-based performance monitoring system produces real-time data on participant business values, savings group performance, graduation criteria progress, and market linkages—data that, if systematically shared with private sector partners, would substantially reduce the cost of market discovery and due diligence. The REAP for Youth boot camp methodology, in which business plans are evaluated by private sector judges, represents a direct market-matching function that transforms NGO program infrastructure into a commercial pipeline.

5.2.4 What Changes the Calculus: Evidence from the Field

Several mechanisms have demonstrated the ability to shift the private sector calculus from avoidance to engagement in comparable contexts. The evidence points consistently toward three types of intervention: demand aggregation that creates commercially viable transaction volumes from dispersed smallholder producers; risk-sharing instruments that address downside risk sensitivity; and market intelligence provision that reduces discovery costs and establishes demonstrated track records.

Aceli Africa's model demonstrates that incentive design matters as much as incentive quantity.⁴⁶ By combining origination incentives for small agricultural loans with first-loss reserves and technical assistance for agricultural SMEs, Aceli was able to catalyze lending to a segment that major financial institutions had previously avoided—not by subsidizing interest rates but by addressing the structural cost and information barriers.

⁴⁵ Adie Tomer, Joseph W. Kane, Anna Singer, Xavier de Souza Briggs, Eve Devens, Manann Donoghoe, Riki Fujii-Rajani, Sanjay Patnaik, and Jenny Schuetz, "Catalyzing Private Capital for Development," Brookings Institution, September 17, 2024, <https://www.brookings.edu/articles/mobilizing-the-market-the-barriers-to-financing-a-more-scalable-climate-response/>.

⁴⁶ AGRA, *Mobilizing Agricultural Finance*, 2021, <https://agra.org/wp-content/uploads/2021/02/Mobilizing-agricultural-finance-2021-02.pdf>. Estimates a \$65 billion annual financing gap for agricultural SMEs across sub-Saharan Africa.

The blended finance literature offers a parallel insight about sequencing. A crucial function of well-designed blended finance is to demonstrate that overall market risk for such investments is much lower than originally thought—so that for the next round of investments, lenders will recognize the lower risk and finance projects with less or no concessional cushion.⁴⁷ Blended finance is most effective not as a permanent subsidy but as a market-building mechanism that generates the evidence and demonstrated track records needed to attract commercial capital on increasingly competitive terms.

For BOMA and its government and donor partners, this evidence implies a specific theory of sequencing: graduation programming builds household economic capacity and creates market-ready enterprises; NGO market facilitation aggregates demand and provides market intelligence; blended finance instruments absorb initial risk while market evidence accumulates; and commercial private sector investment follows as track records are established and information costs fall. This sequence is more specific than the generic argument that “the private sector and NGOs should work together”—it specifies the mechanism through which that collaboration changes the commercial calculus.

5.2.5 The Interaction Between Policy Gaps and Private Sector Incentives

The policy environment and private sector incentive structure interact in ways that can either amplify or dampen each other’s effects. A weak policy environment raises the operational costs faced by private actors and increases their exposure to regulatory uncertainty, which amplifies risk perceptions and reduces the effectiveness of commercial incentives. Appropriately designed policy incentives, conversely, can change the commercial viability calculation even before underlying market conditions have changed.

The CFA Institute’s analysis of Africa’s investment environment identifies this interaction clearly: weak public-private coordination means that new policies often lack buy-in from the private sector, reducing effectiveness, while limited access to SME financing means that banks often under-served high-growth businesses.⁴⁸ This coordination failure—in which governments design policies without private sector input, and private actors form strategies without government engagement—produces exactly the fragmented ecosystem that BOMA’s inception report identified as a binding constraint on scale.

The path out of this coordination failure runs through the NGO facilitation function. Organizations like BOMA, which operate at the interface between communities, governments, and markets, are structurally positioned to translate the needs of each actor into terms the others can act on—converting government policy commitments into operational market pathways, converting private sector risk aversion into specific evidence-based investment opportunities, and converting community economic capacity into aggregated, commercially relevant demand.

⁴⁷ Reid Jackson, “Blended Finance and Market Building in Emerging Markets,” Yale School of Management, 2023, <https://som.yale.edu/story/2023/promise-blended-finance-sub-saharan-africa>.

⁴⁸ CFA Institute, *Africa Investment Environment Analysis, An Examination of Capital Formation Issues in Sub-Saharan Africa and How Private Markets Can Play a Part in the Funding of Structural Investment Needs in the Region* (London: CFA Institute, 2023), https://rpc.cfainstitute.org/sites/default/files/docs/research-reports/capitalformationinafrica_acaseforprivatemarkets_online.pdf.

5.3 Role of NGOs as Market Institutions

Although NGOs such as BOMA play an important role in implementing economic development and poverty reduction programs, they also serve as market institutions that shape the same economic systems in which they operate, particularly in low-capacity, under-resourced, and last-mile regions. NGOs are essential in these regions, where transaction costs may be high, because they help these markets be more inclusive and operationally viable, particularly for the private sector. They do so by de-risking private sector engagement, aggregating households and producers, convening various actors across almost the entire value chain, and generating data that can inform both public and private decision making.

5.3.1 NGO's De-Risking Function

Through their de-risking function, NGOs help reduce the uncertainty-driven risks faced by private firms when they enter remote communities and/or low-income markets to conduct business. Uncertainty can manifest itself around supply reliability, community acceptance, and other logistical challenges. NGOs help to reduce these risks and reduce uncertainty by ensuring that program participants are prepared for private sector engagement and mentored through any necessary follow-up. By doing so, NGOs act as trusted intermediaries between firms and communities that help reduce risk in the market.

5.3.2 NGO's Aggregation Function

NGOs also perform an aggregation function by gathering stakeholders together and pooling their resources to improve efficiency and reach. Sometimes the microentrepreneurs and ultra-poor households in last-mile regions are not enough on their own to attract private actors and incentivize them to invest in their communities. NGOs can step in to organize these actors and partner with them to improve the visibility of these communities to the private sector, whether it be to financiers or other crucial service providers. For BOMA, aggregation is a particularly important function when it comes to graduated participants who may need more structured economic relationships.

5.3.3 NGO's Convening Function

Relatedly, NGOs also serve as the convening actor. NGOs are able to bring together households, community leaders, government representatives, and individuals from the private sector to serve a common economic goal. Since trust is oftentimes low in last-mile communities, NGOs lean on their legitimacy to coordinate much needed collaboration and create space for joint problem solving. Furthermore, NGOs also help clarify expectations so that partnerships are not limited in their effectiveness.

5.3.4 NGO's Data Provision Function

Finally, NGOs gather data that informs both the public and private sectors. They have important information regarding the needs of program participants, program outcomes, and the challenges of the local markets. Incorporating this data into

information from the private sector and government makes NGOs into knowledge brokers and key players as market institutions with broad reach.

5.4 Gender & Inclusion Dynamics

Women and youth face distinct yet overlapping barriers when it comes to market participation and livelihood improvement.⁴⁹ Women face limited access to land, assets, financial resources, and decision-making power, as well as disproportionately heavy unpaid care responsibilities and social norms that constrain their enterprise development. Youth have limited business experience, networks, access to collateral, and access to market entry points, which are needed for successful business ownership. These barriers hinder women and youth from being included in the market and from having real agency over their economic decisions. The literature shows that agency comes from a combination of training, income gains, access to networks, and opportunities to make economic decisions.

For women specifically, the evidence indicates that livelihood gains are more durable and long lasting when interventions go beyond short-term income generation to also include social mechanisms like mentoring and peer support. For BOMA, gender dynamics should be analyzed through rates of program participation, indicators of decision-making power, market access, as well as improved economic positions.

For youth, addressing exclusion is key. Young people do not lack potential, but they do have difficulty getting the market to recognize them as credible. Programs that pair skills development with inclusion mechanisms like peer networks and mentoring produce stronger and more durable outcomes. In dryland and rural communities, such programs are particularly relevant because these areas often have few pathways for economic inclusion and have limited opportunities for formal wage employment.

5.5 Climate and Market Resilience

The 2020–2023 drought killed an estimated 2.6 million livestock across Kenya's northern regions and wiped out more than \$1.5 billion in household wealth, much of it built through years of graduation programming. For private sector actors, this volatility translates directly into commercial risk: unpredictable income cycles compress consumer spending, destroy collateral values, and disrupt supply chains in ways that make last-mile market entry difficult to justify on standard commercial terms.

How climate risk shapes firm behavior. Private actors respond to climate exposure primarily through avoidance — declining to extend credit, source produce, or establish distribution infrastructure in communities where a single drought season can eliminate

⁴⁹ H. Elizabeth Peters et al., *Women's Economic Empowerment: A Review of Evidence on Enablers and Barriers* | Urban Institute (Urban Institute, 2016), <https://www.urban.org/research/publication/womens-economic-empowerment-review-evidence-enablers-and-barriers>; OECD and European Union, *The Missing Entrepreneurs 2019* (OECD, 2019), <https://doi.org/10.1787/3ed84801-en>.

the customer base. This response is commercially rational but self-reinforcing: the absence of private investment deepens community vulnerability, which in turn raises the perceived risk of future engagement. Breaking this cycle requires risk-sharing instruments — index-based livestock insurance, weather derivatives, first-loss reserves — that decouple private sector returns from climate volatility, and NGO facilitation that provides the market intelligence to distinguish genuine risk from perceived risk.

Why climate-resilient livelihoods matter for markets. BOMA's quantitative analysis reveals an important structural finding: in BOMA-active areas, the relationship between household wealth and consumption is significantly weaker than in non-BOMA areas. This decoupling — the result of savings group formation, income diversification, and business skills development — means that graduated households maintain more stable spending patterns across climate shocks than comparable non-program households. For private sector actors, this is commercially significant: BOMA communities represent a more reliable customer base precisely because graduation programming has reduced their exposure to income volatility. Climate-resilient livelihoods are not just a development objective — they are a market stabilization mechanism.

Green value chains as a strategic opportunity. BOMA's REAP for Climate Resilience variant and its broader engagement with climate-smart enterprise development point toward an emerging opportunity in green value chains — regenerative agriculture, sustainable charcoal alternatives, water-efficient livestock practices, and solar-enabled cold chain infrastructure — where climate adaptation and commercial viability increasingly converge. Donors including FCDO and the EU are directing growing pools of climate finance toward these sectors, creating a co-funding environment that reduces the entry cost for private actors willing to develop last-mile climate-smart supply chains. For BOMA, these value chains represent both a program priority and a partnership pathway — connecting graduated enterprises to the private buyers, input suppliers, and financiers who are increasingly required to demonstrate climate-aligned sourcing.

6. Country Deep Dives: Kenya, Ethiopia & Uganda

6.1 Kenya

Summary: Challenges and Opportunities

Domain	Key Challenges	Key Opportunities
Policy Environment	Social protection coverage declining (350k → 280k households). PPP framework	Social Protection Bill 2024 creates legislative platform for a graduation bridge. Kenya Vision

	not applied to ASAL agriculture. County-level coordination fragmented across MoALD, NDMA, and Ministry of Devolution.	2030 and MTP4 (2023–2027) ⁵⁰ both explicitly identify ASAL development as a priority. Devolution creates multiple county-level entry points for NGO–government engagement.
Social Protection	No formal transition pathway from Inua Jamii/CT-OVC to enterprise. NDMA drought response operates separately from livelihoods programming. Enhanced Single Registry not yet fully functional.	Kenya Social Protection Policy 2023 frames livelihoods promotion as a fourth pillar. BOMA’s REAP is already positioned as a de facto graduation bridge with government buy-in in some counties.
SME & Agri Policy	Livestock received only 10% of \$500M+ in agricultural investment (2015–2023). KYC compliance adds weeks to rural loan processing.	DRIVE project (\$40M, World Bank/KDC) demonstrating viable pastoral enterprise finance. Livestock Bill (2024), if enacted, would establish Livestock Marketing Council and Development Fund.
Private Sector	Formal agri-input suppliers, commercial banks, and formal off-takers absent from ASAL counties. Aggregation infrastructure is thin. Risk perception substantially overstated relative to actual default experience.	M-Pesa penetration (82% adult, KSH 7.2 trillion annually) ⁵¹ provides mature digital finance infrastructure. DRIVE project pipeline shows KSH 11 billion in identified demand.
NGO Facilitation	Program-dependent linkages without durable policy anchoring. Fragmented NGO landscape with limited coordination. Risk of market saturation in high-enrollment localities.	BOMA’s deepest operational presence—Marsabit, Isiolo, Turkana, Samburu. USAID NAWIRI multi-actor model demonstrated. County government relationships established. Performance monitoring data is investable intelligence.
Resilient Livelihoods	2020–2023 drought killed 2.5 million livestock ⁵² , wiping out household assets built over years of graduation	BOMA longitudinal evidence shows durable 3–5 year resilience gains post-graduation. IBLI (Index-Based Livestock

⁵⁰ State Department for Economic Planning, Government of Kenya, *Fourth Medium Term Plan 2023–2027: “Bottom-Up Economic Transformation Agenda for Inclusive Growth”* (Nairobi, State Department for Economic Planning, 2024), https://vision2030.go.ke/wp-content/uploads/2024/03/FINAL-MTP-IV-2023-2027_240320_184046.pdf.

⁵¹ Njuguna S. Ndung’u, *A Digital Financial Services Revolution in Kenya, The M-Pesa Case Study* (AERC, 2021), <https://aercafrica.org/old-website/wp-content/uploads/2021/03/AERC-MPesa-Case-Study.pdf>.

⁵² Amali Tower and Ryan Plano, “Case Study: Non-Economic Loss and Damage in Kenya,” *Climate Refugees*, November 13, 2023, <https://www.climate-refugees.org/reports/2023/11/13/loss-and-damage-case-study>.

programming. Rural financial exclusion 12.6% vs 6.2% urban.

Insurance) covers 21 ASAL counties. REAP for Climate Resilience positions BOMA for climate-resilient enterprise funding.

6.1.1 Market Structure

Kenya occupies a structurally distinctive position in East African development. It is simultaneously one of the continent's most sophisticated economies—home to Africa's dominant mobile money platform, a mature NGO and development finance ecosystem, and a devolved governance architecture with significant county-level authority—and a country in which the populations of ASAL counties have been almost entirely bypassed by the economic growth that has transformed Nairobi and the highlands.

Agriculture directly contributed 22.5 percent of Kenya's GDP in 2024 and employs approximately 40 percent of the total population, rising to 70 percent of the rural population. The ASAL regions sit at the economic periphery: they constitute over 80 percent of Kenya's landmass, host over 70 percent of national livestock, and account for approximately 36 percent of the national population—yet record food poverty rates between 28.9 percent (Isiolo) and 63.4 percent (Turkana) against a national average of 30.5 percent, and Global Acute Malnutrition rates reaching 26.4 percent against a national average of 4.9 percent.⁵³

Three characteristics define Kenya's ASAL market structure. First, **pastoralism remains the dominant production system** but operates under acute structural pressure. Pastoral livelihoods are challenged by climatic shocks, land-use change, and market failures. Many pastoral districts lack efficient, competitive livestock markets—with minimal market information, formal market models absent, and weak coordination that erodes profitability for producers and buyers alike.⁵⁴

Second, **Kenya's digital finance ecosystem represents a transformative structural asset** that exists nowhere else in East Africa at comparable scale. The 2024 FinAccess Household Survey found that financial inclusion reached a record high of 84.8 percent of adults, with 52.6 percent using mobile money daily.⁵⁵ M-Pesa annual transaction values reached KSH 7.2 trillion by 2023—equivalent to 55 percent of Kenya's GDP.⁵⁶ Research by Jack and Suri found that access to M-Pesa lifted approximately 194,000 Kenyan households out of poverty between 2008 and 2014, primarily through increased financial resilience for women in rural areas.⁵⁷

⁵³ State Department for Development of ASALs, *Strategic Plan for 2018-2022* (Nairobi, Ministry of Devolution and ASALs, Government of Kenya, 2018), <https://asalrd.go.ke/sites/default/files/2024-02/State%20Department%20of%20ASAL%20Strategic%20plan%202018%2022.pdf>.

⁵⁴ Calvin Manduna and Karen Hansen-Kuhn, *Kenya Livestock Sector: Value Chain Analysis, Trade Impacts & Recent Trends* (Institute for Agriculture and Trade Policy (IATP), 2025), <https://www.iatp.org/kenya-livestock-sector>.

⁵⁵ Kenya National Bureau of Statistics (KNBS) et al., *2024 FinAccess Household Survey* (2024), <https://www.knbs.or.ke/reports/2024-finaccess-household-survey-report/>.

⁵⁶ FINTAK Team, "At 18, M-PESA Faces Its Adult Future: Kenya's Mobile Money Giant at a Crossroads," Fintech Association of Kenya, March 11, 2025, <https://fintechassociation.africa/blog/at-18-m-pesa-faces-its-adult-future-kenyas-mobile-money-giant-at-a-crossroads>.

⁵⁷ Tavneet Suri and William Jack, "The Long-Run Poverty and Gender Impacts of Mobile Money," *Science* 354, no. 6317 (2016): 1288–92, <https://doi.org/10.1126/science.aah5309>.

Third, **Kenya’s devolved governance architecture creates a complex but potentially enabling policy environment.** County governments in Marsabit, Isiolo, Turkana, and Samburu exercise significant authority over development planning, natural resource management, and social services. The SEED program’s experience—in which Isiolo participants accessed county affirmative action funds through registered savings groups and used county-established youth agribusiness hubs—illustrates what this architecture can deliver when NGO program design is specifically structured to interface with it.

6.1.2 Policy Environment

Kenya’s policy environment for inclusive private sector engagement in ASAL counties is characterized by strong formal commitment at the national level, combined with persistent implementation gaps, institutional fragmentation, and inadequate resource allocation that prevent translation of policy intent into operational market change.

The Kenya Social Protection Policy 2023⁵⁸ explicitly identifies livelihoods promotion as one of its four pillars. The Social Protection Bill 2024, currently before Parliament, would establish the legal basis for a structured graduation bridge. The pending Livestock Bill 2024 is significant for ASAL-relevant programming: it seeks to establish a Livestock Marketing Council, a Livestock Development Fund, and a framework for mobile abattoirs and export-readiness certification that could open formal commercial channels for ASAL livestock producers who currently sell exclusively through informal intermediaries.

The most acute policy constraint is not the absence of policy frameworks but the **structural fragmentation between the institutions responsible for delivering them.** The Ministry of Agriculture and Livestock Development, the State Department for Social Protection, the National Drought Management Authority, the Ministry of Devolution and ASALs, and county governments all have overlapping mandates—but no permanent coordination architecture ties them together. Data flow from counties to the national office is a persistent challenge due to the absence of coordination mechanisms across directorates.⁵⁹

6.1.3 Key Sectors

Livestock and pastoral trade is the foundational economic sector of ASAL communities and the highest-potential area for value chain development. Kenya’s ASAL counties host over 70 percent of national livestock—yet between 2015 and 2023, only about 10 percent of the over \$500 million invested in agriculture was directed toward livestock-related ventures.⁶⁰ Disease outbreaks, weather-related risks, and sector informality continue to deter investment.

Digital financial services and mobile credit represent the sector in which Kenya is furthest ahead. The Safaricom/M-Pesa ecosystem, Equity Bank’s mobile banking products, and a growing range of fintechs have created a dense, layered financial

⁵⁸ Government of Kenya, *Kenya Social Protection Policy, 2023*, <https://www.socialprotection.go.ke/sites/default/files/Downloads/KENYA%20SOCIAL%20PROTECTION%20POLICY.pdf>

⁵⁹ Ministry of Agriculture, Government of Kenya, *State Department for Livestock Strategic Plan 2018-2022* (Nairobi: Government of Kenya, 2018), <https://faolex.fao.org/docs/pdf/ken203456.pdf>.

⁶⁰ Calvin Manduna and Karen Hansen-Kuhn, *Kenya Livestock Sector: Value Chain Analysis, Trade Impacts & Recent Trends*, Institute for Agriculture and Trade Policy (IATP), 2025, <https://www.iatp.org/kenya-livestock-sector>.

infrastructure reaching into ASAL communities through agent networks. However, a critical limitation persists: while 82 percent of adults have digital accounts, only 46.5 percent of women have banking products compared to 58.9 percent of men, and rural financial exclusion stands at 12.6 percent against 6.2 percent urban.⁶¹ The FinAccess 2024 data also reveals that, for the first time since 2009, the population of savers has declined—from 74 percent in 2021 to 68.1 percent in 2024—with finance increasingly used for daily survival and emergencies rather than investment.

Nutritious food retail and aggregation is the third key sector, emerging most clearly from BOMA's USAID NAWIRI programming. Graduation businesses that stock fortified foods, manage input aggregation, or act as off-takers from project-supported production farms are playing a structural market activation role—creating commercial presence that makes nutritious food accessible in communities where the nearest formal market is multiple kilometres away.

6.2 Kenya: Private Sector Landscape

6.2.1 Which Firms Operate and Where

The private sector landscape in Kenya's ASAL counties is characterized by a sharp bifurcation between digital and financial services—where mobile technology has enabled meaningful penetration of remote communities—and agricultural value chain actors, where formal private investment remains almost entirely absent from the pastoral zones in which BOMA operates.

In financial services, Safaricom's M-Pesa agent network is the dominant presence, reaching communities with no other formal financial infrastructure. Equity Bank has developed rural-focused banking products and made more aggressive moves into agricultural lending than most commercial banks, though its ASAL coverage remains uneven. In 2023, Safaricom expanded its Fuliza mobile overdraft facility to include small business owners, enabling credit access for over two million enterprises.

In the livestock and agricultural sectors, the operational picture is more constrained. Dairy and poultry firms operate in accessible highland and peri-urban areas but do not extend sourcing networks into ASAL pastoral zones. The World Bank-funded DRIVE project has begun to change the commercial landscape at the margins: it identified ten private sector-led opportunities linked to pastoralism, allocating \$40 million in financial support; in 2023, one enterprise secured a seven-year \$1.4 million loan for fodder production on dryland farms previously considered entirely unproductive.⁶² The Kenya Development Corporation has disbursed KSH 519 million to enterprises in at least 20 ASAL counties and identified a project pipeline of KSH 11 billion in demand that current funding cannot meet.

6.2.2 Which Firms Don't Operate, and Why

⁶¹ FSD Kenya, *The 2024 FinAccess Household Survey: Key Insights*, December 3, 2024, <https://www.fsdkenya.org/blogs-publications/2024-finaccess-household-survey-key-insights-into-kenyas-financial-landscape/>.

⁶² "How Private Investment Is Reshaping Livestock Farming in Kenya," World Bank Group, February 23, 2026, <https://www.worldbank.org/en/news/feature/2026/02/23/how-private-investment-is-reshaping-livestock-farming-in-kenya>.

A clearly defined set of private actors is conspicuously absent from Kenya's ASAL counties, and the barriers to their entry are well-documented.

Formal agricultural credit providers are absent because the transaction economics of small agricultural loans in remote areas are structurally unattractive. KYC compliance, credit assessment, field verification, and loan monitoring costs substantially increase the cost of originating individual rural loans. The absence of formal land title in pastoral areas removes the standard collateral mechanism. And the informality of livestock trade means that income is irregular and difficult to document.

Commercial input suppliers and agro-dealers are absent because their distribution economics require a minimum density of commercially viable clients within reachable distance. The dispersed settlement patterns of pastoral communities, combined with poor road infrastructure, mean that the cost of reaching individual producers exceeds the margin available from small transactions. Without aggregation infrastructure—cooperative purchase orders, shared collection points, or NGO-coordinated bulk procurement—this barrier cannot be overcome by commercial actors alone.

Formal livestock off-takers and processors—the buyers who would transform pastoral livestock trade from an informal, intermediary-dominated activity into a structured commercial relationship—are absent because they cannot cost-effectively source commercially viable quantities of product from thousands of dispersed, informal producers. Quality consistency, veterinary certification requirements, and cold chain logistics present additional barriers.

A livestock investor landscape study found that lack of visibility of good opportunities and lack of investor-ready businesses are further constraints, alongside informality, disease risks, and weather-related risks.⁶³ This information failure dimension—private actors not investing because they cannot find or assess the opportunities that exist—is precisely the gap that NGO market intelligence can close.

6.3 Kenya: Government Role

6.3.1 Key Ministries

Five national-level ministries carry primary responsibility for the policy domains most relevant to BOMA's work in Kenya's ASAL counties, and their coordination—or lack of it—materially shapes the enabling environment for inclusive private investment.

The Ministry of Agriculture and Livestock Development (MoALD) is the primary institutional actor for agricultural and livestock value chain policy. It oversees the DRIVE project, the pending Livestock Bill 2024, the Index-Based Livestock Insurance program in 21 ASAL counties, the Rangeland and Pastoralism Strategy 2021–2031, and a network of training institutions including the Isiolo Mobile Pastoral Training Centre.

The State Department for Social Protection oversees Kenya's cash transfer program—including Inua Jamii (covering Older Persons, Orphans and Vulnerable Children, and Persons with Severe Disability) and the broader National Safety Net

⁶³ *Livestock Sector Investment Low and Neglected - Players*, February 27, 2024, <https://www.the-star.co.ke/business/2024-02-27-livestock-sector-investment-low-and-neglected-players>.

Program—and is the primary institutional partner for graduation programming integration into Kenya’s social protection architecture.

The Ministry of Devolution and ASALs holds a cross-cutting mandate for integrated development of arid and semi-arid regions, operating under the strategic framing of “Unlocking the Potential of ASALs for Accelerated National Development.” The National Drought Management Authority (NDMA) operates under this ministry, coordinating early warning systems, drought contingency funds, and humanitarian response. The NDMA’s Drought Contingency Fund is oriented toward humanitarian response rather than livelihood development, representing a coordination gap that limits its contribution to building long-term resilience.

The Ministry of ICT and the Communications Authority of Kenya jointly regulate the digital finance and telecommunications environment underpinning Kenya’s mobile money infrastructure. As the Institute for Development Studies has documented, taxation of mobile money transactions—including the 2024 Finance Act’s 3 percent excise duty—creates incentive effects that can reduce financial inclusion at the margins where BOMA operates.

County Governments of Marsabit, Isiolo, Turkana, and Samburu are BOMA’s most immediate government partners. Each maintains county-level Integrated Development Plans referencing livelihoods and economic inclusion goals, and each administers county affirmative action funds targeted at women and youth enterprises.

6.3.2 Key Policies

The **Kenya Social Protection Policy 2023**⁶⁴ and the pending **Social Protection Bill 2024** provide the most important policy anchors for graduation programming integration. The Policy’s explicit inclusion of livelihoods promotion as one of four pillars creates a formal policy basis for treating graduation programs as a component of Kenya’s social protection architecture rather than a standalone NGO intervention.

The **Rangeland and Pastoralism Strategy 2021–2031** provides the most ASAL-specific policy framework for sustainable pastoral livelihoods, including provisions for market infrastructure development, climate adaptation, and private sector engagement. The **Index-Based Livestock Insurance** program—operational across 21 ASAL counties—represents a functioning public-private partnership model that could serve as a template for broader private sector engagement instruments in ASAL markets.

6.3.3 Coordination Mechanisms and Gaps

The most significant structural weakness in Kenya’s government coordination architecture is the absence of a permanent, cross-ministry coordination mechanism for ASAL economic development. The programs most relevant to BOMA—DRIVE, NDMA drought contingency, Inua Jamii social protection, county affirmative action funds, digital finance regulatory policy—are administered by different institutions operating on different budget cycles, using different targeting frameworks, and lacking formal integration requirements.

⁶⁴ Government of Kenya, *Kenya Social Protection Policy, 2023*, <https://www.socialprotection.go.ke/sites/default/files/Downloads/KENYA%20SOCIAL%20PROTECTION%20POLICY.pdf>.

Data flow from counties to the national office is a persistent challenge due to the absence of formal coordination mechanisms, with various directorates making data collection ineffective. WFP has signed bilateral agreements with six ASAL county governments—Baringo, Garissa, Isiolo, Marsabit, Turkana, and Wajir—representing a model of direct county-level engagement that bypasses national fragmentation but cannot substitute for it.

6.4 Kenya: BOMA's Positioning and Challenges

6.4.1 Where BOMA Fits

BOMA's positioning in Kenya is the strongest of any country in which it operates. A decade-plus of operational presence in the specific ASAL counties most severely affected by dryland poverty—Marsabit, Isiolo, Turkana, and Samburu—has created institutional depth that is not easily replicated. Its established county government relationships, its longitudinal evidence base, its integration into multi-actor programs such as USAID NAWIRI, and its six differentiated REAP product variants collectively position BOMA at the intersection of three functions that are individually valuable and most powerful in combination.

As a **delivery organization**, BOMA has demonstrated over a decade that REAP can produce durable household-level change in precisely the contexts where other interventions have struggled.

As a **market facilitator**, BOMA is in the early stages of a strategic transition from program delivery toward ecosystem convening and market intelligence functions. The SEED program's boot camp methodology—connecting youth business plans to private sector judges—represents an early operational expression of this facilitation role. BOMA's Taroworks and Salesforce performance monitoring infrastructure represents a distinctive competitive advantage as a market intelligence platform—providing lenders, buyers, and investors with aggregated, verified data on the commercial performance of graduated enterprises—though this potential has not yet been systematically developed.

As a **policy influencer**, BOMA's participation in national program structures like USAID NAWIRI, its engagement with the State Department for Social Protection, and its emerging county government relationships position it to shape the policy enabling environment that its theory of change requires. The current policy trajectory in Kenya—with the Social Protection Bill 2024 before Parliament and the Livestock Bill 2024 under active consideration—creates a window of opportunity for policy influence that BOMA should be specifically resourced to exploit.

6.4.2 Where BOMA Adds Unique Value

Four dimensions of BOMA's value proposition in Kenya are genuinely distinctive and difficult for other actors to replicate.

Proximity and community trust. BOMA's 99 percent Africa-based workforce, its use of local mentors recruited from and embedded in program communities, and its decade of accumulated community relationships give it contextual understanding and trust that

national-level private sector actors and government agencies cannot replicate at comparable cost or speed.

Integrated programming capability. BOMA's portfolio of six REAP variants means it can layer climate resilience, nutrition sensitivity, youth adaptation, and government integration onto a single graduation model backbone. The USAID NAWIRI evidence demonstrates that this integration capability produces outcomes no single-sector actor can match.

Performance data infrastructure. BOMA's Taroworks and Salesforce monitoring system produces granular, real-time, verified data on business values, graduation criteria achievement, savings group performance, and market linkage outcomes—data that is commercially relevant for financial institutions, development finance institutions, and government planning bodies. No other NGO in Kenya's ASAL context produces comparable data at comparable scale.

Trusted convener. BOMA's track record of delivering results in counties where other actors have failed, combined with its relationships at national ministry and county government levels, means it can convene stakeholders—bringing private sector actors to community level, and community evidence to government policy processes—in ways that neither sector can achieve independently.

6.4.3 Potential Challenges for BOMA in Kenya

Transition from program delivery to market facilitation. BOMA's organizational model, funding structure, and staff capabilities have been built around time-bound graduation program delivery. Moving toward ongoing market facilitation, ecosystem convening, and policy advocacy demands different organizational capabilities, funding models, and partnership architectures. This transition is underway but incomplete, and the risk of organizational mission drift—losing program quality while pursuing strategic ambitions—is real and must be actively managed.

Funding dependency and short planning horizons. BOMA's current funding model relies heavily on institutional philanthropy and project-based grants, which impose short planning horizons incompatible with the multi-year ecosystem investment that durable market systems change requires. The Bridgespan analysis found that BOMA's total funding need ranges from \$76 million to \$115 million to reach its 3 million reach goal—requiring catalytic, long-term, and ideally unrestricted funding substantially different in character from current grant funding.⁶⁵

Market saturation in high-enrollment localities. The USAID NAWIRI RCT evidence found that in localities where more than 60 percent of households were enrolled in graduation programming, business competition effects could reduce individual enterprise income over time.⁶⁶ BOMA must develop spatial graduation strategies that actively connect locally graduated businesses to external buyers, regional markets, and value chain actors.

⁶⁵ The Bridgespan Group (2024). *BOMA Strategic Review*. Internal document. Findings cited with permission.

⁶⁶ USAID Nawiri, Mercy Corps, and Catholic Relief Services, "Improving Nutrition with the Graduation Approach: A Technical Learning Brief," December 2023,

<https://www.mercycorps.org/sites/default/files/2024-02/usaidth-nawiri-joint-technical-learning-brief-improving-nutrition-with-the-graduation-approach.pdf>.

Government adoption uncertainty. The policy trajectory in Kenya is favorable, but formal government adoption of graduation programming cannot be guaranteed on any particular timeline. Budget cycles, electoral politics, institutional capacity constraints, and competing demands on government resources all create uncertainty. BOMA must be prepared to sustain its programming model independently across multi-year periods while continuing to invest in the government relationship capital that adoption ultimately requires.

Financial health headwinds. The FinAccess 2024 data reveals that, for the first time since 2009, the population of savers has declined—from 74 percent in 2021 to 68.1 percent in 2024—with debt distress a major challenge and 16.6 percent of borrowers completely defaulting on their loans.⁶⁷ This macroeconomic context creates headwinds for BOMA's savings group model and its emphasis on savings accumulation as a pillar of graduation. BOMA will need to design program components that explicitly address debt trap dynamics, including financial literacy content that helps participants distinguish between productive and consumptive credit.

6.5 Ethiopia

Summary: Challenges and Opportunities

Domain	Key Challenges	Key Opportunities
Policy Environment	Ten-Year Development Plan (2021–2030) ⁶⁸ sets strong ambitions but translation into last-mile operational change remains weak. Home-Grown Economic Reform creates regulatory uncertainty for private actors. State enterprise dominance limits new market entrants.	NAFIR directly targets the structural agri-finance gap. NFIS II (2021–2025) ⁶⁹ prioritizes digital financial services for rural populations. Climate Resilient Green Economy framework provides an entry point for climate-smart value chain investment.
Social Protection	PSNP heavily dependent on external donor funding and vulnerable to fiscal shocks. No coherent single beneficiary registry linking social protection to economic inclusion. Federal-regional coordination remains inconsistent.	PSNP has experimented with livelihood components and offers a platform for embedding graduation. Growing government openness to NGO co-delivery models. Federal integration efforts create opportunities to institutionalize BOMA's model within national systems.

⁶⁷ Kenya National Bureau of Statistics (KNBS) et al., *2024 FinAccess Household Survey* (2024), <https://www.knbs.or.ke/reports/2024-finaccess-household-survey-report/>.

⁶⁸ Federal Democratic Republic of Ethiopia Planning and Development Commission and Development Partners Group Ethiopia, *The 10 Year Development Plan: A Pathway to Prosperity 2021-2030*, <https://www.dpgethiopia.org/resources/the-10-year-development-plan/>.

⁶⁹ National Financial Inclusion Strategy-II, National Bank of Ethiopia, 2021, <https://nbe.gov.et/wp-content/uploads/2023/12/National-Financial-Inclusion-Stratgy-II-2021-2025.pdf>.

SME & Agri Policy	Only 2% of potential agri-finance demand was fulfilled as of 2023–24. KYC and credit compliance adds weeks or months to rural loan processing. Residual state enterprise market dominance compresses private sector margins in key value chains including livestock, dairy, and inputs.	LIFT land certification program (14M+ certificates issued) has unlocked collateral-based agricultural lending for the first time — now expanded to 15 MFIs disbursing ETB 2.4 billion. Liberalization reforms creating space for private actors in agribusiness.
Private Sector	Mobile money transactions only \$470M annually vs. Kenya’s \$109.9B—reflecting regulatory lag and infrastructure gaps. Formal financial institutions, logistics providers, and commercial buyers largely absent from last-mile and pastoralist regions. High transaction costs and climate risks deter entry.	Telecom sector opening (Safaricom Ethiopia, Ethio Telecom competition) ⁷⁰ creating new digital finance infrastructure. Priority value chains—honey, dairy, digital lending—identified with commercially viable market structures. Growing cooperative and agribusiness ecosystem provides a template for expansion.
NGO Facilitation	Complex institutional landscape requires coordination across multiple ministries. Risk of overlap with large-scale government programs. BOMA’s operational footprint in Ethiopia is still developing relative to Kenya. Limited established NGO coordination mechanisms.	BOMA’s graduation model aligns closely with government priorities on livelihoods, financial inclusion, and resilience. Persistent gap between national policy ambition and local implementation creates a clear NGO facilitation role. BOMA’s performance data infrastructure provides a model for demonstrating value to government partners.
Resilient Livelihoods	Overlapping crises—internal conflict, drought, macroeconomic instability—have repeatedly set back household asset accumulation. Environmental degradation and declining soil productivity compound climate exposure. Household expenditure remains closely tied to wealth and household size, indicating limited economic buffers.	In BOMA-active regions, the effect of wealth and household size on per-member expenditure is three times smaller than in non-BOMA areas - demonstrating measurable decoupling of consumption from income volatility. Priority value chains offer durable market integration pathways for graduated households.

⁷⁰ Ethiopia Telecom Market Assessment, World Bank Group, 2025, <https://documents1.worldbank.org/curated/en/099821508252526233/pdf/IDU-a026d983-6657-497a-8b99-5b873649b929.pdf>

6.5.1 Market Structure, Policy Environment, and Key Sectors

With a population of approximately 130 million, Ethiopia represents one of the largest and most strategically significant economies in Sub-Saharan Africa. Agriculture remains the economy's backbone—historically employing the majority of the population and contributing significantly to GDP, accounting for 36 percent of GDP, 64 percent of employment, and 79 percent of exports.

Two structural dynamics shape Ethiopia's market system. First, **thin, fragmented markets** constrain private sector participation in rural and pastoralist regions. Infrastructure constraints, low population density, and limited access to finance reduce commercial viability. Second, **high climate exposure** means that livelihoods closely tied to rain-fed agriculture are acutely vulnerable to variability and drought. Environmental degradation and declining soil productivity further compound these challenges.

Ethiopia has experienced periods of rapid economic growth, averaging close to double digits between 2004 and 2019. However, a combination of internal conflicts, macroeconomic pressures, and climate-related shocks has slowed growth in recent years. These overlapping challenges have exposed underlying structural weaknesses in market integration, particularly in last-mile communities.

The current policy environment is shaped by Ethiopia's Ten-Year Development Plan (2021–2030) and its Home-Grown Economic Reform agenda.⁷¹ These reforms include efforts to strengthen financial systems, improve the business environment, and invest in climate resilience and governance. The National Financial Inclusion Strategy II (2021–2025) highlights significant growth opportunities in digital financial services and credit access—particularly for rural populations, women, and small enterprises, where access points such as bank branches remain limited despite their expansion.

6.5.2 Private Sector Landscape

Ethiopia's private sector landscape remains uneven. In sectors such as telecommunications, financial services, and agribusiness—historically dominated by state-owned enterprises—the economy is gradually opening to private investment. New actors in the telecom and digital finance sectors are creating pathways for connecting rural populations to markets, savings, and payment systems. Private sector activity is notable in agriculture and related value chains, though still concentrated in more accessible or higher-potential regions.

In last-mile and climate-vulnerable regions, however, private sector participation remains limited. Large-scale firms, logistics providers, insurers, commercial buyers, and formal financial institutions operate at minimal scale or are entirely absent. The combination of high transaction costs, climate and production risks, weak infrastructure,

⁷¹ Federal Democratic Republic of Ethiopia, *A Homegrown Economic Reform Agenda: A Pathway to Prosperity* (Addis Ababa: Office of the Prime Minister, 2019), https://www.mofed.gov.et/media/filer_public/38/78/3878265a-1565-4be4-8ac9-dee9ea1f4f1a/a_homegrown_economic_reform_agenda-a_pathway_to_prosperity-public_version-march_2020.pdf.

low and unpredictable demand, and limited producer aggregation creates a structural barrier that individual commercial actors cannot overcome alone.

6.5.3 Government Role

Multiple ministries shape economic activity in Ethiopia. **The Ministry of Women and Social Affairs** focuses on gender inclusion and social protection. **The Ministry of Labor and Skills** addresses employment and skill development. **The Ministry of Agriculture** oversees rural livelihoods and food systems. **The National Bank of Ethiopia** and the **Ministry of Trade and Regional Integration** play critical roles in financial regulation, trade policy, and private sector development.

The Ten-Year Development Plan and Home-Grown Economic Reform agenda set ambitious targets for growth, poverty reduction, and structural transformation. Sector-specific policies—such as the National Financial Inclusion Strategy II—aim to expand financial services access for underserved populations. The Climate Resilient Green Economy framework and the Environment Policy of Ethiopia highlight sustainable resource management and climate adaptation as long-term economic development priorities.

Cross-sector coordination has improved through national strategies and programmatic platforms: financial inclusion governance structures, for instance, establish dedicated councils, steering committees, and implementation groups to coordinate across sectors and government levels. However, coordination challenges persist—particularly in translating national policies into effective local implementation in fragile and last-mile contexts.

6.5.4 BOMA's Positioning in Ethiopia

Within Ethiopia's market context, BOMA is well positioned to serve as an intermediary spanning households, markets, and policy systems. BOMA's graduation model has demonstrated strong household-level outcomes—increased income, resilience, and food security—and its role in Ethiopia would align closely with existing policy priorities around livelihoods, financial inclusion, and climate resilience, while addressing persistent gaps in last-mile delivery and market integration.

BOMA's comparative advantage in Ethiopia lies in four areas: the ability to de-risk private sector engagement in underserved areas; building trust and social capital within communities; facilitating access to markets, finance, and value chains; and tailoring interventions to women, youth, and vulnerable populations. BOMA can serve as a bridge that translates policy into practice and connects households to emerging economic opportunities—particularly given the persistent gap between national policy ambitions and local implementation realities.

Challenges in Ethiopia include: thin markets and limited private-sector presence in target geographies; high exposure to climate shocks and environmental degradation; a complex institutional landscape requiring coordination across multiple ministries; the risk of overlap with existing government programs; and structural constraints that limit the scalability of livelihood gains without stronger market integration and supportive policy frameworks.

6.6 Uganda

Summary: Challenges and Opportunities

Domain	Key Challenges	Key Opportunities
Policy Environment	Mobile money adoption is 32.2% lower than Kenya, attributable largely to less enabling regulatory environment rather than infrastructure differences. National Development Plan III (2020–2025) ⁷² prioritizes agricultural transformation but implementation in last-mile communities remains limited. Fragmented coordination between central ministries and local government structures.	Uganda's NDP III explicitly targets agro-industrialization and financial inclusion, creating policy alignment with graduation programming. The National Financial Inclusion Strategy and Bank of Uganda's fintech regulatory sandbox create space for digital financial service innovation. Growing parliamentary interest in social protection reform offers NGO influence opportunities.
Social Protection	Uganda's social protection system remains thin and fragmented, with the Social Assistance Grants for Empowerment (SAGE) ⁷³ pilot covering a limited share of the poorest households. No formal graduation bridge built into the national social protection architecture. Large refugee population (over 1.5 million) creates additional demand on an already under-resourced system.	Uganda's Comprehensive Refugee Response Framework and Settlement Transformation Agenda create policy entry points for REAP for Refugees programming. The government's interest in scaling SAGE and similar cash transfer mechanisms offers potential for graduation model integration. BOMA's REAP for Refugees variant is directly relevant to Uganda's large and growing displaced population.
SME & Agri Policy	Agricultural finance penetration remains very low, with smallholder access to formal credit constrained by collateral requirements, high interest rates, and limited financial institution presence in rural areas. Agri-input supply chains thin outside of southern and central regions. Land tenure insecurity—particularly for women—constrains collateral-based lending.	Uganda Development Bank and Agricultural Credit Facility provide partial policy instruments for rural enterprise lending. Growing interest in value chain development for coffee, dairy, maize, and beans creates commercial entry points. BOMA's savings group model can substitute for collateral requirements and unlock credit access for ultra-poor households.

⁷² *Third National Development Plan (NDPIII) 2020/21 – 2024/25, Uganda Vision 2040*, Republic of Uganda, https://www.npa.go.ug/wp-content/uploads/2023/03/NDPIII-Finale_Compressed.pdf.

⁷³ Ministry of Gender, Labour, and Social Development, *Social Assistance Grants for Empowerment (SAGE)*, <https://mglsd.go.ug/social-assistance-grants-for-empowerment-sage/>.

Private Sector	Mobile money adoption in Uganda is 32.2% lower than Kenya—a measurable commercial gap attributable to policy environment differences. Formal agri-input suppliers, off-takers, and financial institutions have thin or no presence in northern and eastern Uganda where BOMA operates. Risk perception substantially overstated, as in Kenya—but without Kenya’s M-Pesa infrastructure to demonstrate commercial viability.	MTN Uganda and Airtel Money provide a mobile money duopoly with growing rural agent penetration. Quantitative analysis shows that a one-percentage-point increase in internet use increases mobile money adoption in BOMA-active regions—demonstrating that infrastructure investment yields higher returns in combination with NGO programming. Karamoja and northern Uganda represent underserved but commercially underestimated markets.
NGO Facilitation	BOMA’s operational footprint in Uganda is the least developed of the three core countries, limiting the depth of established community relationships, government partnerships, and evidence base. NGO coordination in northern Uganda and Karamoja is fragmented. Program-dependent market linkages risk collapsing at program exit without stronger policy anchoring.	BOMA’s graduation model and evidence base from Kenya are directly transferable to Uganda’s comparable dryland and refugee-hosting contexts. Quantitative data from BOMA-active Uganda regions already contributes to the \$11.9 billion household expenditure baseline, demonstrating existing market scale. The Government of Uganda’s growing interest in locally led development creates an enabling environment for NGO-government partnerships.
Resilient Livelihoods	Karamoja and northeastern Uganda face chronic food insecurity, recurring drought, and high youth unemployment comparable to Kenya’s ASAL counties. Displacement and refugee dynamics create additional livelihood vulnerability. Household expenditure patterns remain closely tied to household size and wealth, indicating limited economic buffers outside of BOMA programming areas.	Quantitative analysis confirms that in BOMA-active Uganda regions, the wealth coefficient on per-member expenditure is lower than in comparable non-BOMA areas, consistent with the pattern observed in Kenya and Ethiopia. REAP for Refugees offers a proven model for building resilience in displacement-affected communities. Uganda’s large youth population represents both a challenge and a significant economic opportunity if graduation programming reaches scale.

7. Comparative Case Studies

This section draws on external case studies from Bangladesh and India to contextualize findings and to identify transferable lessons for enabling private sector engagement in last-mile markets. Although neither country is in Africa, both Bangladesh and India were selected because they each provide highly relevant analogous lessons on how to transform household-level poverty reduction through NGOs working in conjunction with institutional and policy embedding, market access, and scalable partnerships.

7.1 Bangladesh

In Bangladesh, there is strong NGO capacity in regards to the policy environment. In fact, it was the Bangladesh-based NGO BRAC International that first developed the poverty graduation program in 2002 that BOMA currently uses, making the Bangladeshi case particularly relevant to BOMA.⁷⁴ BRAC's poverty graduation approach to poverty reduction and alleviation has been successfully expanded and implemented in Bangladesh as well as other countries and contexts.

The poverty graduation approach initially emerged in response to increased awareness of ultra-poor households, which did not benefit from conventional approaches like microfinance or less comprehensive models. BRAC's approach therefore was tailored to meet the specific needs of these ultra-poor households through the promotion of livelihoods and financial inclusion within a certain period of time. According to BRAC, its graduation program has reached more than 2.3 million Bangladeshi families. Furthermore, all graduation program participants are women, and 97 percent of participants reported in 2023 that "they had gained control over their income and family resources."⁷⁵

For the private sector in Bangladesh, poverty graduation programs created an additional pool of economically active households that were in a better position to engage with local markets, whether that be through investing, borrowing, spending, or saving. According to an Economic Research Institute for ASEAN and East Asia (ERIA) discussion paper, the Cottage, Micro, Small, and Medium Enterprise (CMSME) sector employs 86 percent of workers and accounts for 99.97 percent of all industries in the country. CMSMEs also make up about 25 percent of Bangladesh's GDP.⁷⁶ Graduation programs improved household readiness to participate in the market in conjunction with policy measures that encourage financial access and inclusion.

⁷⁴ BRAC USA, "Case Study: How Asma Graduated out of Extreme Poverty in Bangladesh," *BRAC USA*, November 11, 2025, <https://www.bracusa.org/news/case-study-how-asma-graduated-out-of-extreme-poverty-in-bangladesh/>.

⁷⁵ BRAC, "Graduation out of ultra poverty," accessed April 23, 2026, <https://www.brac.net/solutions/development/ending-poverty/ultra-poor-graduation/>.

⁷⁶ ERIA, *Post-Pandemic Strategies for Promoting the Agriculture Sector in Bangladesh* (pdf), accessed April 23, 2026, <https://www.eria.org/uploads/Post-Pandemic-Strategies-for-Promoting-the-Agriculture-Bangladesh.pdf>, 10, citing ADB 2021.

The Bangladeshi context also shows the importance of NGOs as market system facilitators in addition to operating programs. It also highlights the importance of graduation models being associated with broader policy guidelines, if the aim is to scale up. Graduation program participants also cannot rely only on income gains alone as they depend on access to markets, financial services, and other private institutions, as well as government support for continued success.

7.2 India

NGOs in India have adopted the poverty graduation model in partnership with the government while also trying to navigate ways to engage with the private sector.

The government of the state of Bihar adapted the poverty graduation approach as a policy instrument through its Satat Jeevikoparjan Yojana (SJY) initiative.⁷⁷ Reaching more than 162,000 women-headed households so far, the initiative was designed to lift people out of extreme poverty through more secure livelihoods. Rural participants became more commercially viable to the private sector as their capabilities improved. Households started to access savings, insurance, and public distribution systems. NGOs played an important role by incorporating the graduation model into government systems and supporting implementation through technical advising. **As a result, private sector engagement became easier as public sector initiatives and government systems lowered transaction costs and developed a pipeline of households ready to interact with the market.**

In India, NGOs have developed relatively new collaborative relationships with private business partners. A 2011 report compiled by The Partnering Initiative of the International Business Leaders Forum⁷⁸ identified five barriers to greater collaboration between NGOs and business in the country, namely:

- (1) The daunting scale of domestic problems;
- (2) Difficulty in finding non-corrupt, efficient NGO partners;
- (3) The NGO management competency paradox;
- (4) Fierce competition within the short-term business environment;
- (5) General acceptance of the status quo by the public.

Similar barriers can be identified in the East African context. Therefore, the Indian case can inform BOMA's future pathway by demonstrating how NGOs can collaborate better with business partners once these obstacles have been identified. NGOs can call on the private sector to invest in the organizational capacity of NGOs who have demonstrated measurable impact. NGOs can also focus on their transparency and improve their communication to establish trust and increase their visibility for potential partners.

⁷⁷ J-PAL, "Going the Last Mile: Lifting Ultra-Poor Households Out of Extreme Poverty," 2023, <https://www.povertyactionlab.org/publication/going-last-mile-lifting-ultra-poor-households-out-extreme-poverty>.

⁷⁸ SOS Children's Villages, *Changing Trends in Business-NGO Relationships in India* (2011), 8-9, https://thepartneringinitiative.org/wp-content/uploads/2023/01/ChangingTrends-BizNGO_India1.pdf.

8. Private Sector Engagement Synthesis

Drawing on the policy review, stakeholder interviews, and quantitative analysis conducted for this study, four fundamental factors enable private sector engagement in last-mile communities: policy, market conditions, supporting institutions, and finance. This section synthesizes the evidence for each.

8.1 Policy Levers: Creating a Predictable Enabling Environment

In Kenya, M-PESA's widespread adoption was enabled by the introduction of lightweight, innovation-friendly regulation—similar regulations introduced sooner in Uganda and Ethiopia resulted in markedly lower mobile money adoption. This natural experiment provides strong causal evidence that policy environment shapes market outcomes independently of infrastructure or household income.

For last-mile markets, the most impactful policy levers are:

Infrastructure investment. Public investment in 4G infrastructure and electricity directly drives financial inclusion. In BOMA-active areas, a one-percentage-point increase in internet users increases mobile money adoption by 0.587 points—more than twice the effect in non-BOMA regions. Infrastructure investment yields higher returns when combined with NGO programming.

Tax incentives for last-mile service providers. Reduced VAT on mobile transactions or tax holidays for companies serving remote customers can shift the private sector's risk-return assessment for last-mile market entry.

Social protection system integration. Scalable graduation models achieve the greatest impact when formally linked to national social protection programs—such as Inua Jamii in Kenya and PSNP in Ethiopia—which provide stable funding and administrative infrastructure for implementation at scale.

8.2 Market Conditions: What Makes a Last-Mile Market Investable?

Private firms evaluate three variables before entering a new market: effective demand (can households buy?); viable supply chains (can product reach market?); and risk exposure (what could you lose, and how do you limit it?).

As documented in Section 4, total annual household spending in surveyed BOMA-active areas amounts to \$11.9 billion, of which \$3 billion is spent by women-headed households. While these areas are considered poor in median income per household, the aggregate spending presents commercially relevant opportunities.

As shown in Section 4, household consumption in BOMA areas is less tied to wealth levels. This indicates that demand is more stable and predictable, which reduces business risk for firms providing basic services in these markets.

Scalable market conditions include:

Aggregation mechanisms : Savings groups and cooperatives lower transaction costs by transforming dispersed individual consumers and producers into commercially viable transaction volumes. For private buyers, financial service providers, and input suppliers, the aggregation function is what makes last-mile entry economically feasible; bulk procurement, shared collection points, and pooled savings reduce the per-transaction cost of reaching individual households below the threshold at which commercial actors can profitably operate. The USAID NAWIRI experience illustrates the dynamic: graduation businesses that began placing bulk orders enabled the availability of items that a single rural shop could not afford to stock, in some cases creating viable markets within communities where the nearest market was previously seven kilometres away. Where savings groups formalize and register with government and financial institutions, the organizational infrastructure for market participation persists beyond the program cycle.

Digital infrastructure with 4G coverage: 4G connectivity is the foundation on which last-mile financial inclusion is built, but the return on that infrastructure depends on whether complementary programming is in place. In BOMA-active areas, a one-percentage-point increase in internet users is associated with a 0.587-percentage-point increase in mobile money adoption, more than four times the effect observed in non-BOMA areas (0.140 percentage points). Mobile money usage is consistently higher in BOMA regions for both men and women, and the gender gap in adoption, which persists at roughly 4 percentage points in non-BOMA areas, has effectively closed in BOMA program areas. For private sector actors, this means BOMA communities are not just connected, but transactionally active: a customer base reachable through digital channels with payment infrastructure already embedded in daily life.

Consistent demand in productive value chains: Households in BOMA regions spend the majority of their income on food, daily and weekly trade, and basic services, categories where demand is recurring, locally fulfilled, and relatively insulated from income volatility. The quantitative analysis confirms this stability: the relationship between household wealth and consumption is approximately three times weaker in BOMA areas than in non-BOMA areas (wealth-spending coefficient of 66.8 versus 205.8), meaning that fluctuations in income translate into much smaller swings in spending on basic goods. For firms in food retail, agro-inputs, mobile services, and basic financial products, this demand stability reduces the volatility risk that typically prices last-mile markets out of commercial consideration. Priority value chains, livestock, dairy, honey in Ethiopia, and nutritious food retail in Kenya, offer the clearest pathways for durable commercial integration.

8.3 Institutional Roles: What NGOs Uniquely Contribute

NGOs like BOMA are not merely graduation program implementers. They function as non-market institutions that perform four market-enabling roles:

De-risking entry: Through training, savings groups, and initial asset transfers, BOMA transforms high-risk, low-information communities into credit-ready customer bases. In

BOMA's regions, the gender divide in mobile money usage has become statistically non-significant—while remaining a significant problem elsewhere. BOMA's institutional presence has demonstrably reduced the perceived risk of serving female entrepreneurs.

Aggregation: Savings groups and business cooperatives aggregate small amounts of produce, savings, and transaction data to facilitate cost-effective operations for private buyers and financial service providers.

Convening: BOMA has established multi-stakeholder forums—including Kuza Jamii and KSEIP—that bring together counties, donors, and private companies around shared costs and aligned incentives.

Data analysis: The granular, longitudinal data BOMA collects on household income, assets, and business performance is a market intelligence asset in itself. It enables outcome-based financing and allows private companies to segment last-mile customers with a high degree of confidence.

8.4 Financing Mechanisms: Moving Beyond Grant-Funded Pilots

Financing must align with the timelines of market development phases if commercial scale is to be achieved. The analysis points to three financing structures that address this alignment challenge:

Blended finance: Donor-funded guarantees or first-loss tranches attract commercial capital into last-mile distribution networks. With the total addressable market for blended finance estimated at \$11.9 billion. This provides a credible anchor for developing such financing structures at scale.

Results-based financing: Payments tied to verifiable outcomes—number of women using mobile money, increase in household income—align NGO incentives with long-term market growth rather than activity delivery.

Public-private cost sharing: County governments in Kenya have already contributed financially to REAP programming. Regression analysis, as noted in Section 4, shows that in BOMA regions, household size has a smaller impact on expenditures than in non-BOMA regions (coefficient: 25.58 vs. 88.38), suggesting that programs which decrease dependency ratios—such as youth employment—have greater overall market impact than programs that merely create new income-generating opportunities for existing household members.

8.5 Conclusion

The synthesis above points to a clear conclusion: scale will not be achieved through program expansion alone. It will require coordinated shifts in policy architecture, financing instruments, private sector incentives, and NGO facilitation roles. The findings highlight that no single actor can unlock last-mile markets independently. Instead, progress depends on aligned action across government, donors, private sector actors, and NGOs operating as system facilitators.

9. Actionable Recommendations

The following section translates these system-level insights into actionable priorities for each stakeholder group. These recommendations should be read as mutually reinforcing levers within a broader pathway from household graduation to market integration and, ultimately, systems-level scale.

The recommendations are organized by stakeholder group, but they are grounded in a shared systems logic. Last-mile markets become investable when policy reduces uncertainty, financing mechanisms absorb early-stage risk, private actors see credible pathways to scale, and NGOs perform the facilitation functions required to bridge gaps between communities and markets.

Each recommendation therefore reflects a structural shift required to move from successful household-level graduation to sustained, market-driven economic participation at scale.

9.1 Government

The quantitative results identified multiple policy areas for urgent attention by national and local policy makers. The most telling is the \$11.9 billion in total household expenditures within BOMA managed areas; \$3 billion of which comes from female-controlled households. This proves that these areas represent economically viable markets and are not simply empty economic spaces.⁷⁹

The first use of this evidence is for policymakers to justify targeted investment in last-mile infrastructure and encourage private sector investment. The second piece of evidence, which shows that mobile money use in both Ethiopia and Uganda lags behind that of Kenya by 52.5 points and 32.2 specifically even after controlling for infrastructure and expenditure adds belief to the idea that light touch regulatory environments are important for expanding digital financial inclusion.⁸⁰

Policymakers in both Ethiopia and Uganda should focus on reforming their regulatory environments, taking cues from Kenya's experience as a model. The last significant finding is the ongoing gender expenditure gap in the BOMA regions; approximately 18,266 LCU. Therefore, when considering how to support women-owned businesses, it will be necessary to focus on their ability to own assets and generate profits/wealth, not just on income.⁸¹

Policy makers' action is the primary determinant of whether last-mile markets become investable environments. The recommendations below focus on translating existing policy intent into operational mechanisms that enable private sector participation and strengthen the graduation-to-market pathway.

⁷⁹ See Table 4.1. Totals are weighted to reflect population estimates based on survey sampling weights.

⁸⁰ See Section 4.3 and accompanying footnotes. Country fixed effects are statistically significant at $p < 0.001$.

⁸¹ See Section 4.1 and footnote 45. The female head coefficient is -18.27 ($p = 0.034$).

With the objective of enabling inclusive market systems that connect vulnerable populations to sustainable economic opportunities, the following are the recommendations:

Shifts to Productive Inclusion Systems from the safety net: Policy makers should integrate productive inclusion systems by evolving social protection programs (e.g., PSNP) to embed livelihood and enterprise development within safety nets, link beneficiaries to skills, assets, and market opportunities, and strengthen graduation pathways beyond consumption support. This will ensure long-term resilience rather than dependency.

Strengthen policy frameworks that are market-enabling. Private-sector engagement should be encouraged by the Policy makers through enabling conditions such as simplifying regulatory processes for SMEs and rural enterprises, supporting last-mile infrastructure like roads, digital connectivity, and market access, and reducing barriers for informal businesses to formalize. These are critical for unlocking markets that are rural and climate-vulnerable.

Incentives. For the private sector, targeted incentives should be introduced by establishing tax incentives for companies operating in underserved geographies, providing subsidies for climate-resilient value chains (e.g., livestock, agri inputs), and prioritizing inclusive sourcing models in public procurement policies. This will reduce the risk of entering low-income and remote markets.

Strengthening decentralized institutional capacity. Invest in local policy makers delivery systems, building capacity for coordination across sectors, and improving last-mile implementation through partnerships with NGOs. These will help address the key bottleneck, which was also observed in the PSNP case study.

Integration into Economic Policy of climate resilience. Promoting climate-smart agriculture and livelihoods, aligning national policies with resilience and market integration goals, and incentivizing sustainable natural resource management.

9.2 Donors

Donors play a catalytic role in shaping how risk is distributed within last-mile markets. The following recommendations emphasize a shift from short-term program funding toward financing structures that enable market development and institutional facilitation.

Infrastructure. Donors serve an essential role in the infrastructure necessary for private sector investment into last mile markets. They provide concessional capital, take on risk as well as provide multi-year funding horizons, which are critical to bridging the divide between high-risk, low-information frontier markets and the commercial viability threshold for private sector actors. Unfortunately, current donor tools such as short-term project grants, activity-based disbursements and inflexible compliance requirements do not align well with the long-term, flexible and adaptive investments needed to develop

market systems. The body of evidence provided in this report points to three specific areas where donor practices need to evolve in order to address the structural barriers to private sector participation at the last mile.

Finance Tools. To begin, donor agencies must broaden their application of blended finance tools specifically meant for the transaction size and level of risk associated with activities at the end of the supply chain, or last mile. The assessment of last mile markets undertaken in the preceding chapters demonstrates that there is currently a substantial mismatch between existing blended finance vehicles in Kenya and Ethiopia, which are presently designed for large scale infrastructure and manufacturing, and the limited amount of capital needed by rural agri-SMEs, women’s cooperatives, and smallholder aggregation businesses. As a solution, donor agencies should fund and establish dedicated last-mile blended finance facilities that provide first loss capital, guarantees, and technical assistance grants to transactions in the range of \$25,000 to \$500,000 - an amount that has been demonstrated to be commercially viable yet undedicated as a segment by both Aceli Africa and other similar ventures.⁸² When creating these facilities, donor agencies should use simplified due diligence methodologies based on NGO developed market intelligence (such as BOMA’s performance measurement database) instead of traditional credit rating standards, which are simply too costly for small rural enterprises to bear.

Results- or outcomes-based funding. Funders ought to transition from activity-based funding to results- or outcomes-based funding for financing methods. Presently, when tracking input or output, non-profits, such as BOMA are limited in time horizons for planning. When there are short-timeframes to make plans, this will impact the ability of NGOs to invest in facilitative roles i.e. market intelligence, convening and long-term mentorship—all of which this report stipulates are critical for engaging the private sector. Results-based financing mechanisms such as Development (or Social) Impact Bonds; outcomes funds; and pay for performance contracts, then would tie together donor distributions with tangible evidence of increased: income at the household level; business survival; and the use of mobile money by beneficiaries. Therefore this type of financing would provide flexibility for NGOs to modify their facilitative approach based on local market conditions, while at the same time holding them accountable for measurable outcomes. In addition, these types of financial mechanisms should be designed around systems-level outcomes as defined by BOMA’s theory of change—i.e., not only the number of graduates, but the durability of their integration into a market and the amount of private-sector capital generated subsequently.

Multi-year, flexible funding from donors is needed for NGO market facilitation functions. Evidence from the USAID Nawiri program, the Bridgespan strategic review, and key informant interviews demonstrates that the four most valuable roles NGOs can play in helping private sector engagement are being de-risked (reducing the risks of entry), aggregating demand, convening stakeholders, and providing market

⁸² Aceli Africa provides 2–8% of qualifying loan amounts into a first-loss reserve account, alongside origination incentives that offset the cost of serving rural agricultural SME loans.

See: Convergence, *The Case for Agricultural SME Lending in Sub-Saharan Africa*, 2023,

<https://www.convergence.finance/api/file/cf2114e66c4869e3f4f8efc96e32b35f:aa2f33b51fca94e2cf926762ccbd671c97f5b7597344b9e887b2340865c7112e163bc7608232fa759655c7baa4a1d714d99c7511b8109ccb06e7130be96be0859048b021254c729f3e879e17e47bd7638435abe71b50c957c168718a9096429acc46f7b982019d6266dd77a7e714893afb5470f6ecdcdc581f2177413178bb2113dcf04a41036c592694fe8bbfc59dec4> .

intelligence. The limitations of traditional one- to three-year project grants do not provide adequate resources to support these roles.⁸³ Market systems facilitation should have funding windows that are dedicated to "market systems facilitation" and allow for five- to seven-year timeframes, adaptive management, and coverage for the time NGO staff spend brokering private sector partnerships rather than providing direct delivery of products. Funding should be established to reward the number and quality of market linkages established and the total volume of private capital leveraged rather than the total number of activities delivered.

Coordination. Coordination among actors in the public, private and NGO sectors is critical to improving how millions of people can access inclusive market systems. Lack of coordination among these three sectors leads to major constraints to inclusive market development. Donor agencies, both bilateral and multilateral, are uniquely positioned to leverage their resources to establish the necessary mechanisms for coordinating these three sectors that currently do not exist. One way that donors can leverage their relationships across these three sectors is to create "last-mile investment roundtables," held county-wide or region-wide, where policy makers, decision makers, private companies, and NGO representatives can collectively assess the constraints that are holding back their respective sectors; align their interests; and collaboratively design interventions to alleviate the constraints. The World Bank's DRIVE project in Kenya's ASAL counties is a partial example of how coordinated and collaborative approaches can create investment opportunities in value chains considered uninvestable. By combining concessional financing from the World Bank with KDC's implementation capacity and private sector co-investment throughout the implementation process of the DRIVE project, substantial improvements have been achieved in value chains for pastoralists that had previously been considered uninvestable.⁸⁴ In order to scale up the model established by the DRIVE project, donor agencies need to provide financial investments in multi-actor approaches and give equal attention to developing the necessary coordination infrastructure.

Donors need to provide funding to conduct credible, independent evaluations of market facilitation and business engagement methods. Very little evidence exists on ways to leverage private investments into the last mile market. The quantitative study done in Section Four of this report contributes to the general understanding of market investments; however, it does not have the complete answer to all appropriate questions such as, which arrangement of facilitation activities works best in which contexts and what is the optimal order of NGO facilitation, blended finance and regulatory reform? Also, how long will market connections remain between sellers and buyers when NGO support ceases? Therefore, donors should provide disbursed funding (ideally, 3 to 5 percent) for independent mixed methods evaluations that investigate the longitudinal trends associated with market integration; assessment of spillover benefits; and development and dissemination of general learning with application to practice, thus

⁸³ The Bridgespan Group (2024). BOMA: Close out Meeting, 2024.

BOMA Strategic Review identified that BOMA's total funding need ranges from \$76 million to \$115 million to reach its 3-million-household goal, requiring catalytic, long-term, and ideally unrestricted funding substantially different from current grant funding.

⁸⁴ "How Private Investment Is Reshaping Livestock Farming in Kenya," World Bank Group, February 23, 2026, <https://www.worldbank.org/en/news/feature/2026/02/23/how-private-investment-is-reshaping-livestock-farming-in-kenya>.

The DRIVE project identified ten private sector-led opportunities linked to pastoralism and allocated \$40 million in financial support.

creating a public good that will help lower both perceived risk and information barriers, which contribute to private investments in the last mile communities throughout East Africa.

Quantitative Analysis. The quantitative analysis provides benchmarks for donors for designing and evaluating their investments (including results-based financing) in terms of return on investment and value added (economic return). The SROI ratios of 5.6:1 for Kenyans vs 1.0:1 for women in Ethiopia demonstrate, through a range of examples, that these graduation programs provide a significantly higher economic return than that which is currently afforded by commercial capital (the SROI ratio of the program). Therefore, donors should use these ratios when creating or supporting results-based financing instruments and should tie payment of disbursements to verified income gains in relation to the established benchmarks provided by these ratios.⁸⁵ Furthermore, the finding that the presence of BOMA increased the impact of internet access on mobile money adoption more than 4 times (0.587 vs 0.140 percentage points) also provides a strong rationale for donors to couple NGO facilitation with infrastructure investments. Donor funding should, therefore, be used to facilitate the development of complementary human capital and mentorship programs designed to optimize public investment returns from infrastructure development.⁸⁶ Finally, the estimated total market size of \$11.9 billion indicates that the blended finance facility is viable and an appropriate investment vehicle and that the size of last mile markets can successfully absorb and repay investments made with commercial capital.⁸⁷

9.3 Private Sector

The quantitative findings provide a navigational aid to private sector actors providing a more comprehensive view of commercial opportunities within BOMA-active regions. The \$11.9 billion of total household expenditure (\$3.0 billion of which comes from female-headed households) represents a large addressable market.⁸⁸ Household consumption in BOMA areas is less dependent on total wealth than expected by conventional risk models (66.8 versus 205.8), indicating that demand is therefore more stable and eventually predictable, reducing exposure for both retailers and service providers.⁸⁹ Now, both men and women in BOMA-active regions appear to have comparable levels of mobile money usage; therefore women from BOMA communities are as digitally connected to the global economy as their male counterparts, affording them a more integrated customer base for the provision of digital financial services.⁹⁰ BOMA graduates from Kenya had increases in household income of +205% (men), +92% (women) and in Uganda +156% as such, the growing household income of BOMA graduates represents future increasing purchasing power in the market.⁹¹

⁸⁵ See Table 4.3. SROI calculations use a three-year horizon and a 5% discount rate.

⁸⁶ See Section 4.3 and Figure 4.3. Both coefficients are significant at $p < 0.01$.

⁸⁷ See Table 4.1.

⁸⁸ See Table 4.1.

⁸⁹ See Section 4.1 and Figure 4.1. Both coefficients are significant at $p < 0.001$.

⁹⁰ See Section 4.3. Female coefficient in BOMA regression is not statistically significant ($p > 0.10$).

⁹¹ See Table 4.2. All estimates $p < 0.001$.

Enter through partnership, not alone. Private sector actors should engage BOMA's market intelligence infrastructure before committing capital. BOMA's performance monitoring data — verified business values, savings group transaction histories, and graduation pipeline data — substantially reduces the due diligence cost that makes last-mile market entry commercially unattractive. This data is not available through any other channel and should form the basis of any product design, credit facility, or distribution model targeting REAP-active communities.

Design for stability, not just scale. The most commercially significant finding in this report is not market size — it is demand structure. In BOMA areas, household spending is three times less sensitive to wealth fluctuations than in non-BOMA areas, meaning demand for basic goods and services is more stable and predictable than conventional risk models assume. Financial products, input supply, and distribution models should be designed around this stability — using savings groups as the unit of aggregated demand, and graduated enterprises as last-mile distribution agents.

Match the risk instrument to the actual barrier. Generic blended finance guarantees do not change private sector behavior if the real barrier is origination cost rather than default risk. Aceli Africa's model — subsidising the cost of making a rural loan, not the cost of losing one — demonstrates that targeted origination incentives of 2–8% of loan value unlock lending that first-loss guarantees alone do not. Private actors and their donor partners should diagnose the specific barrier before selecting the instrument.

9.4 BOMA

For BOMA, the implications are not simply programmatic but institutional. The organization is uniquely positioned to transition from an implementing entity to a system-level actor that enables market participation at scale.

Clarify system role. BOMA should explicitly define its system role, whether that be as a program implementer, market facilitator, policy development partner, and/or a data provider. Oftentimes, NGOs try to fulfill every role in the system, but do not have an explicit message that highlights their value to potential donors and partners. BOMA's role should be abundantly clear, especially in front-facing materials that may be viewed by partners and donors, such as its website.

Pursue strategic alliances. BOMA would benefit from being further integrated in a consortium model, such as the one spearheaded by GDI Africa. Leveraging consortiums will allow BOMA to access partners with more specific knowledge in areas, such as climate and market analysis rather than trying to conduct these functions internally.

Invest in technical expertise. The need for in-house staff with strong strategic expertise when it comes to partnership design will be critical for BOMA's programmatic expansion. Such staff should have intimate knowledge of the landscape of Kenya, Uganda, and Ethiopia and potential partnership pathways.

Develop a data-driven story for fundraising. BOMA has a wealth of quantitative evidence available to support its fundraising, advocacy, and strategic positioning through the creation of a data-driven story. For example, the size of the market at \$11.9 billion; this number will be pivotal in creating the organization's investment narrative, showing BOMA not as a charitable organization serving poor communities but as a portal into a substantial, reliable and expanding market.⁹²

Recommendation Summary

01 Clarify and establish BOMA's system role

BOMA should make an explicit strategic choice about what it is — and communicate it consistently. The evidence positions BOMA not as a charitable implementer but as a market infrastructure provider: a portal into an \$11.9 billion last-mile market, a de-risker of private sector investment, and a generator of the longitudinal data that commercial actors and policymakers cannot produce independently.

Critically, the quantitative analysis shows that demand in BOMA communities is structurally more stable than conventional risk models assume. The wealth coefficient on household spending is 66.78 in BOMA areas compared to 205.75 outside — meaning that for businesses serving these communities, demand remains relatively predictable regardless of fluctuations in household income. This is the commercial argument that reframes BOMA's target communities from "high risk" to "underestimated", and it should anchor all external-facing materials, donor pitches, and Policy makers engagement.

Evidence base: Wealth-spending coefficient 66.78 (BOMA) vs 205.75 (non-BOMA); \$11.9B total addressable market across BOMA-active areas

02 Build and deploy a private sector investment narrative

BOMA's fundraising and partnership conversations should shift from describing what the program does to demonstrating what the market opportunity is. The quantitative findings provide the raw material for a compelling investment case that does not yet exist in consolidated form:

- **Market scale:** \$11.9B in annual household expenditure, of which \$3B flows through women-headed households.
- **Growing purchasing power:** Income gains of +205% for men and +92% for women in Kenya, and +156% for men in Uganda represent a commercially relevant and expanding consumer base.

⁹² See Table 4.1.

- **Return on investment:** SROI ratios of 5.6:1 for men in Kenya and 2.2:1 for women demonstrate that every dollar invested generates multiples in household income.

BOMA should package these findings into a concise, investor-ready narrative document targeted at development finance institutions, impact investors, and large-scale philanthropists — positioning catalytic funding not as charity but as market entry.

Evidence base: SROI ratios: 5.6:1 Kenya men, 2.2:1 Kenya women, 5.0:1 Uganda men, 1.4:1 Uganda women, 1.0:1 Ethiopia women

03 Formalize performance data as a strategic asset

BOMA's Taroworks and Salesforce monitoring system already produces verified, real-time data on business values, savings group performance, and graduation outcomes across thousands of households. This is commercially significant intelligence that lenders, buyers, and investors currently have no other way to access.

The infrastructure multiplier finding makes this concrete: a one-percentage-point increase in internet connectivity generates a 0.587 percentage-point increase in mobile money adoption in BOMA areas — more than four times the 0.140 effect in comparable non-BOMA areas. The difference is BOMA's programming. BOMA's presence measurably increases the return on public infrastructure investment, and its data is what proves it.

BOMA should package this data systematically — anonymized, aggregated, and in investor-ready formats — and make it a standard component of every private sector, donor, and Policy makers partnership conversation.

Evidence base: Infrastructure multiplier: 0.587 (BOMA areas) vs 0.140 (non-BOMA) per 1pp increase in internet use — more than 4x difference

04 Use the current policy window deliberately

Kenya's Social Protection Bill 2024 and Livestock Bill 2024 are a strong starting point. Ethiopia's Home-Grown Economic Reform is creating new space for private sector entry. These are time-limited windows that require deliberate, resourced engagement — not passive monitoring.

The mobile money country gap data provides the sharpest policy argument available: even after controlling for infrastructure and household income, Ethiopia's mobile money adoption is 52.5 percentage points below Kenya's and Uganda's is 32.2 points below — a

gap attributable almost entirely to regulatory environment, not poverty or connectivity. Kenya's light-touch M-Pesa regulation is the transferable lesson.

BOMA should use this evidence to advocate for three specific policy asks across its operating countries:

- **Kenya:** Embed a formal graduation bridge in the Social Protection Bill — a structured pathway from safety net receipt to enterprise and market participation.
- **Ethiopia & Uganda:** Pursue regulatory sandboxes for digital financial services modelled on Kenya's approach, using the mobile money gap data as the primary proof point.
- **All three countries:** Establish targeted investment incentive frameworks for last-mile private sector engagement — tax holidays, VAT reductions, and origination subsidies for rural agricultural loans.

Evidence base: Mobile money gap: Ethiopia 52.5pp below Kenya; Uganda 32.2pp below Kenya — attributable to policy environment, not income or infrastructure

05

Redesign program architecture to close the gender expenditure gap

BOMA has effectively closed the gender gap in mobile money usage in program areas — a significant achievement. But the expenditure gap persists: female-headed households in BOMA areas spend approximately 18,266 local currency units less annually than male-headed households, even after controlling for wealth.

The household size coefficient adds a further design implication: per-member expenditure is less affected by household size in BOMA areas (25.58) than outside (88.38), suggesting that programs which reduce dependency ratios — such as youth employment — generate greater market impact than those that simply add income sources. BOMA should build targeted asset-building, profit-generation, and dependency-reduction components into program design specifically for women entrepreneurs, including:

- **Asset-building modules:** Focused on collateral accumulation and formal asset registration for women.
- **Market linkage support:** Specifically in female-dominated value chains including dairy, nutritious food retail, and handicrafts.
- **Mobility and time-use interventions:** Addressing structural constraints that prevent women from scaling their enterprises at the same rate as male participants.

Evidence base: Gender expenditure gap: 18,266 LCU in BOMA areas; gender gap in mobile money: 0% in BOMA areas vs 4pp in non-BOMA areas

06 Build the organizational capabilities for a system broker role

The transition from program delivery to market facilitation requires different people, different funding models, and longer planning horizons. BOMA should invest in three specific capability areas:

- **Strategic partnership staff:** Dedicated personnel with deep knowledge of the private sector landscape in Kenya, Ethiopia, and Uganda and practical experience in brokering public-private partnerships.
- **Policy advocacy capacity:** Resourcing at national and county Policy makers level to actively engage the policy windows identified in this report — not as a secondary activity but as a core organizational function.
- **Consortium model:** Rather than building every capability in-house, BOMA should formalize alliances with specialist organizations — including IPA, Dalberg, FSD Kenya, and GDI Africa — to access market systems, MEL, and climate expertise.

Funding arrangements should move toward five-to-seven year flexible commitments that allow market facilitation work — convening, intelligence provision, partnership brokering — to be sustained across project cycles rather than restarted with each grant.

07 Advocate for aligned donor financing instruments

Current donor tools — short-term project grants, activity-based disbursements, and rigid compliance requirements — are structurally misaligned with the long-term market facilitation work this report identifies as critical. Three specific shifts are required:

- **Dedicated last-mile blended finance facilities:** Targeting transactions of \$25,000–\$500,000, using NGO-generated market intelligence as the basis for due diligence rather than traditional credit rating standards. The \$11.9B market size confirms that blended finance at this scale can be absorbed and repaid.
- **Results-based financing:** Payments tied to verified outcomes — household income growth, mobile money adoption, business survival — that align NGO incentives with long-term market development rather than activity delivery. The SROI ratios in this report provide ready-made benchmarks.
- **Multi-year market facilitation funding:** Five-to-seven year windows explicitly covering convening, data provision, and partnership brokering — rewarding the volume of private capital leveraged rather than the number of activities delivered.

Evidence base: 42% of Eastern Africa SDG investment requires blended finance; infrastructure multiplier doubles when paired with NGO programming

Taken together, these recommendations imply a significant evolution in BOMA's role. Delivering on this agenda requires capabilities that extend beyond program implementation toward system coordination, policy engagement, and market facilitation. The following section explores what this transition means for BOMA's long-term strategy and institutional positioning.

10. Implications for BOMA's Long-Term Strategy

Across country contexts and comparative case studies, a consistent finding emerges: while policy makers provide scale and stability, and private sector actors bring innovation and capital, gaps persist in connecting last-mile populations to sustainable economic opportunities. These gaps are most pronounced in climate-vulnerable and thin-market contexts where structural barriers limit both supply- and demand-side participation.

This presents a clear strategic inflection point for BOMA. Achieving sustained economic mobility at scale requires moving beyond program delivery to engaging with the broader ecosystem. BOMA's graduation model has demonstrated strong outcomes in building household-level resilience. The following section outlines how BOMA can reposition itself as a system-level actor capable of unlocking inclusive, climate-resilient growth by bridging markets, policies, and communities.

10.1 BOMA as System Broker

Ecosystem Intermediary

Traditionally, BOMA has functioned as a high-touch program implementer—delivering graduation interventions that support ultra-poor households in developing livelihoods. As a system broker, BOMA must evolve into an actor that coordinates, connects, and catalyzes interactions among last-mile communities, private markets, and government systems. In this role, BOMA would connect households to markets, de-risk engagement in underserved areas, aggregate demand from last-mile populations, and facilitate partnerships between government programs and private actors.

Strengthening Public–Market Linkages

Analysis across three geographies reveals that government programs deliver scale and safety nets but limited economic transformation, while private sector actors provide market opportunities but lack last-mile reach. BOMA is positioned to bridge this gap by layering its graduation model onto existing government systems, facilitating coordination between ministries, financial institutions, and market actors, and enabling beneficiaries to transition from consumption support to market participation. This

positions BOMA not as a parallel implementer but as a complementary actor to the state.

Enabling Private Sector Participation in Thin Markets

In rural and climate-vulnerable contexts, the private sector often faces high transaction costs, limited demand visibility, and perceived risks in low-income markets. As a system broker, BOMA can pilot partnership models that demonstrate commercial viability, support trust-building and customer onboarding, provide market intelligence, and deliver last-mile insights—creating pathways for inclusive market development and reducing entry barriers for commercial actors.

Embedding Climate Resilience

Climate shocks continue to undermine livelihood gains, particularly in fragile ecosystems. BOMA can lead by linking climate-resilient practices—such as regenerative agriculture and water management—to income-generating activities, supporting diversification of livelihoods to reduce climate risk exposure, and partnering with private sector actors in climate-smart value chains. This ensures economic inclusion is sustainable under climate stress.

Designing Gender-Responsive and Inclusive Pathways

Women and youth face disproportionate barriers when accessing markets, finance, and assets. Market-based approaches without intentional design risk reinforcing existing inequalities. As a system broker, BOMA can prioritize women and youth in its own operations while influencing partners to adopt inclusive product and service design—supporting collective models such as savings groups and cooperatives, and addressing structural barriers around mobility, access to information, and social norms.

10.2 BOMA as Policy Actor

The \$11.9 billion in annual household expenditure across BOMA-active areas, the structurally stable demand curve, and the growing income base of graduated enterprises represent a market opportunity that conventional risk assessments have consistently undervalued.

Enter through partnership, not alone. Private sector actors should engage BOMA's market intelligence infrastructure before committing capital. BOMA's verified data on business values, savings group transaction histories, and graduation pipelines substantially reduces the due diligence cost that makes last-mile market entry commercially unattractive — and is not available through any other channel.

Design for stability, not just scale. In BOMA areas, household spending is three times less sensitive to wealth fluctuations than in comparable non-BOMA areas. Demand for basic goods and services is more stable and predictable than conventional risk models assume. Financial products and distribution models should be designed around this stability — using savings groups as the unit of aggregated demand and graduated enterprises as last-mile distribution agents.

Match the instrument to the actual barrier. Generic blended finance guarantees do not change private sector behavior if the real barrier is origination cost rather than default risk. Aceli Africa's model demonstrates that targeted origination incentives of 2–8% of loan value unlock lending that first-loss guarantees alone do not. Diagnose the specific barrier before selecting the instrument.

10.3 BOMA as Market Builder

This report provides BOMA with the evidence base to fundamentally redefine how it presents itself to donors, investors, and private sector partners. The \$11.9 billion addressable market, the 5.6:1 SROI ratio, and the fourfold infrastructure multiplier are not simply impact statistics — they are the building blocks of a commercial investment case that positions BOMA not as a charitable implementer but as a portal into a large, stable, and commercially underestimated market.

Lead with the market, not the program. BOMA's external narrative should shift from describing what REAP does to demonstrating what the market opportunity is. The wealth-to-spending coefficient finding — 66.78 in BOMA areas versus 205.75 outside — reframes last-mile communities as lower-risk than conventional models assume. This argument belongs at the front of every donor pitch, investor brief, and private sector partnership conversation.

Formalize data as a commercial asset. BOMA's Taroworks and Salesforce monitoring infrastructure already produces the verified, longitudinal market intelligence that lenders, buyers, and investors cannot generate independently. This data should be packaged systematically — anonymized, aggregated, and in investor-ready formats — and positioned as a core part of BOMA's value proposition in every partnership negotiation.

Use this report as the entry point. The synthesis of policy analysis, quantitative market evidence, and stakeholder findings presented here gives BOMA a credible, externally validated foundation for engaging development finance institutions, impact investors, and large-scale philanthropists.

11. Conclusion: From Graduation to Systems Change

Poverty graduation works. That is the foundational finding of this research, and it is not a modest claim. Across Kenya, Ethiopia, and Uganda, BOMA's REAP model has produced durable, compounding gains in household income, savings, food security, and economic agency - gains that persist and grow three to five years after program exit, without ongoing support. The evidence base is among the strongest in the sector.

But graduation alone is not enough. ***The central finding of this report is that household-level success hits a structural ceiling when it is not embedded in a functioning market and policy ecosystem.*** REAP graduates build businesses, accumulate savings, and develop the skills to participate in markets — and then find that the markets, financial services, buyers, and policy infrastructure they need are

largely absent from the communities where they live. The problem is not insufficient program quality. It is insufficient ecosystem readiness.

Four conditions, operating together, determine whether graduation translates into systems-level scale. Policy frameworks must actively incentivize private investment in last-mile contexts - not just avoid obstructing it. Market actors must be able to access the demand, information, and aggregation infrastructure that makes last-mile operations commercially rational. NGOs must play a formalized facilitation role - de-risking entry, aggregating demand, providing market intelligence, and convening actors across sectors. And financing must be structured to match the multi-year timelines of market development, not the short cycles of project grants.

The quantitative evidence sharpens these findings considerably. A \$11.9 billion annual market exists in BOMA-active areas. Household demand is structurally more stable than conventional risk models assume. NGO programming multiplies the return on infrastructure investment more than fourfold. And the 52-point mobile money gap between Kenya and Ethiopia — attributable almost entirely to regulatory environment, not poverty or connectivity — is the clearest possible demonstration that policy shapes market outcomes independently of economic conditions.

What needs to happen next?

Policy

1. Governments in Kenya and Ethiopia must translate policy ambition into operational architecture. Kenya's Social Protection Bill and Livestock Bill should embed a formal graduation bridge connecting safety net recipients to enterprise pathways.
2. Ethiopia and Uganda need regulatory sandboxes for digital financial services modelled on Kenya's light-touch approach.
3. Across all three countries, targeted investment incentive frameworks — tax holidays, origination subsidies, VAT reductions for last-mile service providers — are the missing mechanism that would shift the private sector calculus from avoidance to engagement.

Markets

1. Private sector actors need the information, aggregation infrastructure, and risk-sharing instruments that make last-mile markets commercially rational.
2. Dedicated blended finance facilities targeting transactions of \$25,000–\$500,000 — using NGO-generated market data rather than traditional credit standards — would unlock lending to a segment that is not high-risk but is high-cost to originate.
3. Multi-stakeholder investment roundtables at county and regional level, bringing government, NGOs, and private actors around shared agendas, would

begin to build the coordination infrastructure that individual actors cannot create alone.

BOMA

1. BOMA must formalize its system broker role — moving deliberately from program delivery toward market facilitation, policy advocacy, and data provision. This requires dedicated strategic partnership staff, five-to-seven year flexible funding arrangements, and consortium alliances with specialist organizations in climate, MEL, and market systems.
2. BOMA's performance monitoring data should be packaged as a commercial market intelligence product and placed at the centre of every private sector and government partnership conversation.
3. The investment narrative must shift: BOMA is not a charitable implementer — it is a portal into an \$11.9 billion market.

Why this matters for East Africa's drylands

The drylands of East Africa are not an afterthought in the global development story — they are its hardest chapter. The communities that BOMA serves in Turkana, Marsabit, Isiolo, Samburu, and their counterparts across Ethiopia and Uganda represent the populations that four decades of development investment have consistently failed to reach at scale. Climate change is accelerating the urgency: the 2020–2023 drought wiped out \$1.5 billion in household wealth built over years of painstaking graduation programming. The structural traps that keep these communities poor are deepening, not easing.

And yet the evidence from this research is genuinely optimistic. The market is larger than investors assume. The policy levers are available, even if they have not been deployed. The graduation model has proven itself beyond reasonable doubt. What remains is an act of institutional will — governments willing to embed graduation in their social protection architecture, donors willing to fund market facilitation on multi-year timelines, and private sector actors willing to enter markets that BOMA's evidence shows are commercially viable.

The window is open. The evidence is ready. The task now is to act.

Fifteen years of program evidence, a \$11.9 billion addressable market, and a rare alignment of policy windows across Kenya, Ethiopia, and Uganda mean that the conditions for systems-level change are more favorable today than they have ever been. What is required is not more research — it is coordinated action across governments, donors, markets, and the NGOs that have already proven the model works.

Annexes

Annex A: Methodology

A.1 Mixed-Methods Methodological Design

This research used a mixed-methods technique with quantitative analyses of household survey data and administrative data with qualitative key informant interview and focus group discussions. The rationale for the mixed methods approach was the assumption that combining strengths from quantitative and qualitative methods would mitigate the limitations of each of these methodological approaches.⁹³ Quantitative methods will afford breadth of coverage as well as the ability to estimate average effects across similar populations with a reasonable degree of replicability and to support the validity and reliability of the relationship, magnitude and statistical significance between two variables. On the contrary, qualitative methods will afford depth, contextually rich data and insight into the causal mechanisms and the lived experiences that contribute to the creation of the relationship between two variables.

This report was designed mainly to use quantitative methods to estimate causal impact and size of last-mile market potential while using qualitative methods to assist in interpreting the data, finding context for results, and capturing data to show dynamics that couldn't be captured by quantitative tools.

There are consequences to this research method. Qualitative data does provide some much needed details and confirms many quantitative results but it cannot be considered to be a complete ethnographic examination of the populations that access BOMA's programs. Some examples of information not included in this study are: intrahousehold decision-making processes; the function of informal social networks to facilitate market participation and the long-term paths of graduates that leave BOMA's programs but did not participate in follow-up interviews. These omissions are significant and indicate that additional qualitative inquiries will deepen the evidence base that supports BOMA's programming and policy advocacy.

A.2 Quantitative Data Gaps, Comparability Constraints, and the Limits of Causal Inference

This report's quantitative assessments are primarily based on nationally representative household surveys (e.g., Kenya Continuous Household Survey (KCHS), the Ethiopia Socioeconomic Panel Survey (ESPS), and the Uganda National Household Survey (UNHS)) and programmatic monitoring data from BOMA as well as publicly available administrative and census data. Although these represent the best available data for addressing the questions posed in this study, there are important limitations to the data from these sources.

Data Quality and Coverage in Remote Areas

Household surveys are considered by many to be the best method for measuring poverty, living standards and economic activity in developing countries.⁹⁴ However, the reliability of these surveys can vary from place to place. Research done recently using geocoded survey data from 35 African countries shows that data quality is lower in remote or rural areas compared to urban areas. The sampling frames are less accurate, non-response rates are higher and measurement

⁹³ Copestake (2024) provides a detailed discussion of quant-led and qual-led mixed-methods designs.

⁹⁴ See Nature Communications 16 (2025): 3771 on the centrality of DHS data.

errors are more frequent.⁹⁵ Because of this problem with access to good quality survey data, estimates of poverty rates for dry and semi-dry regions may be less accurate than those of more easily accessible regions of the same countries.

Comparability Across Countries and Over Time

Comparability both across time and across nations. Harmonization is the process of adjusting variables from three different national surveys. To do this, there were many judgment calls to be made. For example, the KCHS, ESPS and UNHS do not define income and consumption measures in the same way, so that the asset indices which we will use as proxy measures of wealth will rely on slightly different underlying indicators; and the reference periods for main outcome variables differ in these surveys.⁹⁶ Therefore, although the measures will have been constructed using the best possible conceptual comparisons, differences in methodology and the definition of survey variables cannot be completely removed. Consequently, we will use the cross-country comparisons in this report to indicate major trends rather than precise points of the absolute differences in either living standards or opportunities in the market.

The difficulties associated with temporal alignment of data sources is another issue. For example, while the household surveys used in this study (KCHS 2020-2021; ESPS 2021-2022; UNHS 2023-2024) are not tied together by common years, BOMA's programmatic data are derived from multiple different timeframes for each intervention. Effectively, an ideal research design would involve a single, harmonized panel of data that shared a common time frame across all three data sources. In practice, this kind of data is not available; consequently, this analysis has to assume that the structural relationships (i.e., the relationship between wealth and expenditure; the relationship between digital infrastructure and financial inclusion) will not dramatically change over the time intervals analyzed.⁹⁷

Attribution Versus Correlation

The primary goal of the report is to assess how BOMA's work through the program affects household income, as well as to measure the level of digital infrastructure in the areas where the program operated, and subsequently, how that infrastructure would influence the use of mobile money. The impact analysis used a difference-in-differences design, which provides significant protection against many of the most common and serious threats to the validity of causal inference (for example, unobserved time-invariant heterogeneity, and time-invariant secular trends that have the same effects on treatment and control groups). However, the adoption of this design does not remove all of the potential for selection bias, time-varying unobservables, or spillover effects that could confound the results of the comparison group.⁹⁸

In addition, it is critical to differentiate between evidence that provides support for a causal interpretation of an association and evidence that simply demonstrates an observed correlation between two variables. This report provides results from regression analyses that show statistically significant relationships between the variables of interest; for example, the relationship between the amount of time a person spends on the internet and their adoption of mobile money, as well as the relationship between receiving support from the BOMA program and household income. The analytical decisions made in this study (such as using fixed effect models, matching methods, and extensive covariate controlling) help strengthen the likelihood that a causal interpretation is warranted, but they do not confirm causality.⁹⁹

⁹⁵ Data quality in remote areas is lower; see Nature Communications (2025).

⁹⁶ On the challenges of cross-survey consumption aggregates, see World Bank Economic Review (2022).

⁹⁷ See UNECA (2025) on the limitations of outdated household survey data.

⁹⁸ Copestake (2024) discusses these distinctions.

⁹⁹ On the tendency to conflate correlation with causation, see Altman (2020).

External Validity and the Challenge of Scaling from Pilot Evidence

The quantitative analysis may have an insecure measure of impact for programs due to the absence of empirical data on what their performance may be if understood on a national level or for their application, not only in terms of how they measure up against historical evidence but also how they will function from now on if implemented at scale (either as analyzed at the time of the study's completion, i.e., the past year, or as planned in future programs) and for empirical testing and subsequent use of this testing approach as identified with respect to contextually how they are supposed to work as planned and historically tested. The degree to which these results can be applied elsewhere (locales, agency types, client population types, and funding modal activity types) is not well established.¹⁰⁰

Sample Size and Statistical Power

In some parts of the quantitative analysis, especially in relation to the sub-national regressions that separate BOMA-active areas from non-BOMA-active areas, there are relatively few observations upon which to base analysis. For example, BOMA-active has only 40 observations (e.g. 20 sub-national regions x 2 sexes), which limits the statistical power to detect statistically significant and, potentially, substantive effect sizes.¹⁰¹ The confidence intervals, when presented with the corresponding point estimates, should serve as a transparent measure of the precision with which the different effect sizes are estimated. Readers should pay attention to these confidence intervals rather than simply the point estimates alone.

A.3 Representativeness, Interpretation, and the Limits of Voice-Based Evidence

The qualitative aspects of this report were made up of key informant interviews with government officials, private sector actors, donors and BOMA staff; as well as focus group discussions with program participants; thus capturing the perspectives, experiences and contextual insights of participants that other measures do not easily access. Nonetheless, qualitative methods also have distinct limitations that must be recognized as such.

Sampling and Representativeness

A purposefully chosen sample of respondents participated in this qualitative research project by using existing BOMA-derived networks, snowball sampling techniques, and targeted level outreach efforts. The qualitative method of data collection used for this study is appropriate to achieve the objectives of qualitative research, which emphasizes depth of data, event context, and determinants of cause and effect, rather than statistically representative. As such, there is insufficient basis to conclude that with respect to the larger population, the respondent's views reflected in this study are representative.¹⁰²

Additionally, when attempting to get in contact with some types of respondents, there were some practical barriers. This is especially true for senior government officials who have little availability, private sector individuals who are based in remote areas and participants who previously participated in BOMA's programs but are no longer engaged with BOMA's field staff. Thus, the qualitative sample is likely to be biased toward individuals who are willing to participate and have access to BOMA staff.¹⁰³

Confirmation Bias and Interpretive Discretion

¹⁰⁰ See Institute of Development Studies (IDS) (2018) on the challenges of external validity in impact studies.

¹⁰¹ Small sample sizes limit statistical power; see Wooldridge (2010).

¹⁰² Qualitative research does not seek statistical generalizability; see "Drowning Over Data."

¹⁰³ See NCA (2024) on sampling biases in hard-to-reach populations.

Because qualitative analysis is an interpretive enterprise, it is shaped by the researcher's prior knowledge, assumptions, and analytic frameworks; this shapes the collection, coding, and synthesis of evidence.¹⁰⁴ To minimize confirmation bias when analysing the data, a number of steps were taken by the research team. First, the use of semi-structured interviews permitted participants to raise topics not originally anticipated in the interview protocol. Second, triangulating observation data across multiple respondent categories further reduced confirmation bias. Third, qualitative findings were systematically compared to the relevant quantitative data. However, it cannot be excluded that the research team had expectations about how qualitative evidence would be interpreted.¹⁰⁵

The Challenge of Attribution in Qualitative Accounts

Program participants' feedback often indicates they believe the intervention (i.e., program) has had a positive effect on their life. As such, it is reasonable to consider these views valid, based on their detailed accounts of program components (e.g., business grants, saving groups and mentoring) enabling positive change. However, it should also be noted that responding individuals may not be in a good position to assess "what might have happened if the program did not exist"; they may not know how their life would have developed without the program, and they may also give credit to the program for positive changes that actually were a result of economic social environment, etc.¹⁰⁶ Thus, the qualitative evidence in this report provides a complementary, but limited, view of the program's impact relative to those program effects from more systematic causal inference methods, as provided by quantitative analysis.

A.4 Cross-Cutting Limitations

Unique Country-Based Contextual Factors

A final series of limitations applies to both the qualitative and quantitative aspects of this study, namely, the generalisability of the results from one context to another. There are substantial differences among the three countries in terms of policy environments, market structures, institutional capability, and cultural norms. In Kenya, there is an established regulatory environment for mobile money, which has allowed for the creation of a successful ecosystem for digital finance. Conversely, in Ethiopia there is much lower use of mobile money compared to Kenya, primarily due to the absence of regulations in that country. Similarly, the model of development in Ethiopia is state-led, and the Productive Safety Net Program is a key program within the context of social protection in Ethiopia; therefore, the opportunities and challenges for operating successful graduation programs are significantly different from those in Kenya, where the model of development is based on devolution and county-led governance. In addition to these differences, providing supportive environments for refugee populations introduces another dimension of complexity to the context of this study, specifically with respect to refugee households; policies that support their livelihoods and economic integration have been developed through specific frameworks within the context of the Ugandan experience.¹⁰⁷

The differences mentioned above are not just background factors, but also have had an important impact on the context of how BOMA operates and the interpretation of the findings from this study. Patterns seen in one country do not necessarily translate to another country, and recommendations from the findings of the analysis should be developed specific to the institutional, legal, and economic conditions in each context.¹⁰⁸ The design of the three countries in which this study took place creates a stronger evidentiary base than if the study was designed

¹⁰⁴ See Bath SDR on confirmation bias in qualitative evaluation.

¹⁰⁵ Copestake (2024) notes the interpretive nature of qual-led models.

¹⁰⁶ See D+C Development and Cooperation (2008) on the attribution gap.

¹⁰⁷ World Bank (2018) notes the difficulty of cross-context generalization.

¹⁰⁸ Pritchett and Sandefur caution against applying evidence across contexts.

around only one country, however, the findings of the study cannot be generalized to other countries within the region or on other continents.

The Political Economy of Data Access and Stakeholder Engagement

The externalities that have shaped the basis of evidence for this research have been factors outside of the control of the research team. Restrictive policies and limited capacity of the national statistical agencies and line ministries to access certain datasets, especially administrative data regarding tax records, customs transactions, and social protection registries, limited the research team's ability to gather data.¹⁰⁹ The research team had to deal with existing relationships through BOMA's institutional networks in order to interview available stakeholders, but time restraints experienced by busy government agency employees and private-sector companies also affected the research team's ability to interview those stakeholders. These limitations are not unusual in an applied policy study context, but they are limitations, and the research team cannot assess or eliminate all of the potential biases associated with these limitations.

The limitations discussed in this section do not invalidate the report's findings but do recommend a cautious, well-defined perspective of them. The collected evidence provides valuable insight into the connection among graduation programming, market systems development, and private sector involvement throughout last-mile communities in East Africa. However, it is not the whole story. Additional research, i.e., longitudinal studies that follow graduates for long periods; experimental or quasiexperimental assessments of particular market-linkage interventions; and systematic comparisons across multiple countries, will be crucial to develop an evidence base for scalable, sustainable, and truly inclusive economic development policy.

¹⁰⁹ See Nature Communications (2025) on the reliance on household surveys in Africa.

Annex B: Interview Questionnaire

KII Questionnaire

Welcome and Overview

- **Introduce yourself and your team member (note-taker).** Be sure to describe Columbia/SIPA.
- **Objective:** This interview is conducted as part of a research partnership between Columbia University's School of International and Public Affairs and BOMA. We will examine how policy frameworks, market systems, and partnerships can better support inclusive private-sector engagement and sustainable livelihoods for women and youth in last-mile contexts. Through these interviews, we will develop insights to identify key barriers, opportunities, and enabling conditions for strengthening market linkages and private-sector participation in regions where BOMA operates. The finding will inform recommendations for program design, partnership strategies, and policy engagement to improve economic resilience and market access for women and youth-led enterprises. We are focusing on Ethiopia, Kenya, and Uganda.

Ground Rules for Interview:

- Duration: Pitch as a 30-minute session; communicate if more details are required. We will be sharing the questionnaire through email as a follow-up
- Permission to quote them and use their name in the study
- Ask permission to record

The following questions are designed to elicit information from the interviewees. Please use them as a guideline and customize the questions based on the interviewee (NGO/Government/Private) and the interview's progress.

Introduction (*This information can also be collected through secondary research before the interview*)

- Please describe your role and your organization's engagement with
 - Women and youth-led initiative for poverty alleviation
 - Private sector or market-based initiatives
 - Experience with geography (Ethiopia/Kenya/Uganda)

Stakeholder ecosystem and market context

- Who are the most influential actors shaping livelihood and market access for women and youth in the last-mile area?
- Among the government, the private sector, NGOs, and other sectors like women's cooperatives, where do you see strong coordination? Where do you see the breakdown? Opportunity?
- What is the level of engagement of the private sector, and how can it be strengthened? What are the primary barriers? Do you have examples of success stories to share?

Policy ecosystem – enablers and constraints

- What policies, regulations and governance programs currently enable private sector engagement in the last mile contexts?
Optional follow-up question: Are there any gender-inclusive or youth-focused policies that specifically encourage private-sector engagement with women-led enterprises?
- What are the main policy and regulatory barriers (risks, cost/incentive, infrastructure or market thinness, gender or social norms) that discourage private sector participation?
- Have you observed any instances in which policy catalysed private investment or market entry? If so, what do you think worked, and how can it be replicated while ensuring feasibility in the Kenyan/Ethiopian/Ugandan contexts?
- How do integrated models (e.g., Poverty Graduation Models/Economic inclusion models+ nutrition, climate) amplify outcomes and cost-effectiveness, social return on investment?

Role of NGOs (including BOMA) in market systems

- What roles (convening actors, de-risking investment, providing last-mile intelligence, building the capacity of women/youth entrepreneurs, influencing policy, etc.) do NGOs play most effectively in supporting private-sector engagement?
- What are the limitations which NGOs face while playing these roles, especially in the demography of Uganda/Kenya/Ethiopia?
Optional follow-up questions: Can you share a specific example of a successful or failed partnership between an NGO and a private firm in last-mile markets? What made it work or fail?
- With respect to the REAP/Economic inclusion graduates (GoK), Poverty graduation Graduates (NGOs), what causes post-graduation regression and what distinguishes households that sustain 12-24 months later?
- Based on what you understand about BOMA, where do you see the strongest value proposition for engaging with private firms?

Market integration and livelihood sustainability

- What factors influence whether women or youth-led enterprises can sustain and grow once the initial support from the program ends? And how does African geography play its role in that?
- What enables a successful transition from a group-based model to the private sector or cooperatives? And how do climate shocks, displacement or conflict affect the transition?
- What mitigation strategies can help address risks such as climate shocks, displacement, or conflict?
- What program adaptations increase economic agency, voice and market access for women, youth, refugees and other displaced persons?

System-level feasibility and scale

- From your perspective, what incentives most strongly shape how government, private firms, and NGOs behave in last-mile markets?
- What would realistically motivate a private firm to enter or stay engaged in these contexts, and what are the hardest barriers to scaling successful models across regions or countries?
- What strategies increase resilience to climate and economic shocks for youth- and women-led households and businesses?
- What types of evidence or proof points are most persuasive to policymakers or investors?
- What alternative approaches to private sector engagement have you seen work better in fragile contexts, and why?

Intersectionality and an inclusive lens

- What specific barriers do women and youth face in accessing markets, buyers or finance which others may not?
- Have you seen any program and policy adaptations that meaningfully improve economic agency, decision-making, and market access? What do you think is still the hardest to address and why?

Looking forward: recommendations and opportunities

- What advice would you give BOMA as they aim to scale their impact and influence systems-level change to unlock private-sector engagement for poverty alleviation in Ethiopia, Kenya/Uganda?
- Do you have any final thoughts?

Additional questions can be explored when interacting with specific stakeholders:

Specific to Government:

1. Who stands to gain or lose from deeper private-sector engagement in last-mile markets?
2. Where do political or institutional incentives misalign with inclusive growth goals?
3. Are there “champions” or blockers within the government or the private sector?
4. How do refugee policies (Kenya, Uganda) or state-led systems (Ethiopia) shape market engagement?
5. How do climate risks, insecurity, and integrated models (e.g., livelihoods + climate/nutrition, resilience) influence private-sector incentives and investment decisions in last-mile contexts such as the ASAL (Arid and semi-arid lands), where BOMA operates?

Specific to the private sector:

1. What minimum conditions would need to exist for your firm to enter or expand into last-mile markets?
2. Which risks are non-negotiable versus those that could be mitigated?
3. What role would subsidies, guarantees, or anchor buyers realistically play?

Annex C: Stakeholder List & Stakeholder Map

Approach to Stakeholder Selection

BOMA's stakeholder mapping spans three primary geographies — Ethiopia, Kenya, and Uganda — with additional coverage of regional East Africa actors. Contacts were identified and categorized across four engagement types: Government (national and county-level officials with mandate over trade, gender, cooperatives, and social development); Donors (bilateral and multilateral funders, foundations, and impact-financing organizations); Partners (implementation organizations, NGOs, and private sector actors with operational alignment); and Private Sector (market-systems actors with reach into BOMA's target populations). This tiered structure reflects BOMA's theory of change, which requires enabling policy environments, sustained funding, and strong implementation networks to operate at scale.

Outreach Status

Of the approximately 60 stakeholders identified, 11 have confirmed availability (marked ✓), representing roughly 18% of the total pool. These confirmed contacts span World Bank Ethiopia, several Kenyan county government directorates, Mastercard Foundation Kenya, and key regional partners including GDI, GENCO, and AFARD-Uganda. One contact (Smart Regional Consultants, Kenya) is in a pending state.

The remaining ~80% are currently marked Unavailable, signaling that active outreach and scheduling efforts are still needed across the majority of the pipeline — particularly within Uganda's government and donor landscape, where no confirmed contacts exist yet.

BOMA's Stakeholder Next Steps

This table serves as a living engagement tracker and strategic planning tool. BOMA can use it to:

- Prioritize outreach by focusing first on high-value unavailable contacts — particularly government counterparts in counties where BOMA operates (Turkana, Marsabit, Mandera, Garissa, Wajir, Samburu) and donor relationships with organizations like FCDO, Mercy Corps, and IKEA Foundation.
- Identify gaps in geographic and sector coverage — Uganda in particular has very limited confirmed engagement and warrants a dedicated outreach push.
- Inform partnership strategy by cross-referencing contact type and organization against BOMA's funding, co-implementation, and policy advocacy needs.
- Prepare for convenings or learning events by knowing in advance which stakeholders are reachable and which require more relationship-building before formal engagement.

Country	Type	Name	Role	Organization	Status
Ethiopia	Government	Mr. Assalfew Amedin	Chief Executive Officer, Office of the Minister	Ministry of Women & Social Affairs	Unavailable
Ethiopia	Donor	-	JICA ETHIOPIA OFFICE	JICA Ethiopia	Unavailable
Ethiopia	Donor	Ed Olowo Okere	Sr. Advisor, Equitable Growth, Finance and institutions	World Bank Ethiopia	↓
Ethiopia	Donor	Christabel E. Dadzie	Senior Policy Specialist	World Bank Ethiopia	↓
Ethiopia	Partner	Nur Mohamed	Program Coordinator for Public Sector Programs	CARE Ethiopia	Unavailable
Kenya	Government		Director Trade	County Government of Isiolo	↓
Kenya	Government	Komitu Leshoomo	Director Trade	County Government of Samburu	Unavailable
Kenya	Government	Robert Leaburia	Deputy Director - Cooperatives	County Government of Samburu	↓
Kenya	Government	Nasieku	Director - Gender & Social Services	County Government of Samburu	Unavailable
Kenya	Government	Sammy Letoole	Director - Special Programs	County Government of Samburu	↓
Kenya	Government	Loposh Winnie	Director - Trade	County Government of Turkana	Unavailable
Kenya	Government	Onderi Mollen	Director - Gender	County Government of Turkana	↓
Kenya	Government	Eyena David	Director - Cooperatives	County Government of Turkana	Unavailable
Kenya	Government	Mike Aupe	Director - Partnership & Resource Mobilisation	County Government of Turkana	Unavailable
Kenya	Government	John Kinyua	Director - Trade	County Government of Wajir	Unavailable
Kenya	Government	Ahmed Hassan	Director - Gender	County Government of Wajir	↓
Kenya	Government	Dayiba Hassan	Director - Cooperatives	County Government of Wajir	Unavailable

Country	Type	Name	Role	Organization	Status
Kenya	Government	Osman Roble Abdi	Director Trade Industrialization and Enterprise Development	County Government of Garissa	Unavailable
Kenya	Government	Abdullahi Dakane	Director Cooperatives	County Government of Garissa	Unavailable
Kenya	Government	Mohamed Dubowaden	Director Special Program and Donor Coordination	County Government of Garissa	Unavailable
Kenya	Government	Benard Omondi Ogutu	Director Agriculture	County Government of Mandera	Unavailable
Kenya	Government	Mohamed Abukar Adan	Assist director Cooperative	County Government of Mandera	Unavailable
Kenya	Government	Abdirizack Ibrahim Hassan	Deputy director trade	County Government of Mandera	Unavailable
Kenya	Government	Ibrahim Billow Omar	Deputy Director Gender & Social Services	County Government of Mandera	Unavailable
Kenya	Government	Hussein Kasa	Director_Trade Department	County Government of Marsabit	Unavailable
Kenya	Government	Sarapana Boru	Director_Cooperatives Department	County Government of Marsabit	Unavailable
Kenya	Government	Anna Maria	Chief Officer_Gender Department	County Government of Marsabit	Unavailable
Kenya	Government	Dr. Linet Ochuma	Ag. Secretary Directorate of Social Development. Vice Chair, Global Alliance Board of Champions for Ending Poverty and Hunger. Lead, Economic Inclusion Program.	Department of Social Development	Unavailable
Kenya	Private Sector	Nicholas Wechuli		Safaricom	Unavailable
Kenya	Donor	Ezinne Anyanwu	Manager and Head of Partnerships, Anglophone Africa	Instiglio	Unavailable

Country	Type	Name	Role	Organization	Status
Kenya	Donor		Kenya Country Officer	Instiglio	Unavailable
Kenya	Donor	Olga Petryniak	Senior Director of Resilience for East Africa	Mercy Corps	Unavailable
Kenya	Donor	Hussein Abdille	Chief of Part of USAID Nawiri program	Mercy Corps	Unavailable
Kenya	Donor	George Apaka	Programs Lead, Agribusiness and food systems	Mastercard Foundation Kenya	Unavailable
Kenya	Donor	David Kinyua	Humanitarian Resilience and Inclusion Lead	British High Commission Nairobi (FCDO)	Unavailable
Kenya	Donor	Peter Kochupe	MEL	Mastercard Foundation Kenya	√
Kenya	Partner	Jim Tozer	Managing Director and Head of Operations focusing on development	Kenchic	Unavailable
Kenya	Partner	Jaffer Ayub / Catherine	County Program Officer and Development	Smart Regional Consultants (SRC)	Pending
Kenya	Partner	Francis Gwer	Senior Policy Specialist	Financial Sector Deepening Kenya	Unavailable
Kenya	Partner	Felix	Mastercard Foundation		Unavailable
Uganda	Government	<i>No contact</i>	<i>No contact</i>	Ministry of Gender, Labour & Social Development	Unavailable
Uganda	Government	Mr. Patrick Okello	Commissioner / Refugee Management	Office of the Prime Minister (Refugees)	Unavailable
Uganda	Donor	Adrian Bukenya	Country Director, Uganda Programs Senior Director Mastercard Foundation Scholars Program	Mastercard Foundation Uganda	Unavailable
Uganda	Partner	AB Gabazira	Country Director	CARE Uganda	Unavailable
Uganda	Partner	Edmond Onana	Head of Field Work Office and Manager	UNHCR Uganda	Unavailable

Country	Type	Name	Role	Organization	Status
East Africa	Partner	Erin Lewis	-	Catholic Relief Services	Unavailable
East Africa	Partner	Dorine	CEO	GENCO Livestock and Fresh Meet Export	√
East Africa	Partner	Alice Gugelev / Dan Ouko	CEO	Global Development Incubator (GDI)	√
East Africa	Partner	Dr Alfred Lakwo	-	AFARD - Uganda	√
East Africa	Donor	<i>No contact</i>	<i>No contact</i>	IKEA Foundation	Unavailable
East Africa	Donor	Benit	-	Pilot House Philanthropy	Unavailable
East Africa	Donor/NGO	Moses Maina	-	BRAC	Unavailable

Annex D: Technical Annex — Empirical Methodology and Data Sources

This annex provides detailed methodological documentation for the three empirical analyses presented in Section 4 of the report. All quantitative analysis was conducted using Stata 18, with robust standard errors throughout.¹¹⁰

A. Market Sizing and Structural Analysis of Household Expenditure

This analysis quantifies the total addressable market in BOMA-active geographies and examines the structural relationship between household wealth, composition, and expenditure patterns. It uses nationally representative household survey data from Kenya, Ethiopia, and Uganda.¹¹¹

A.1 Data Sources

Country	Survey	Year	Household Observations (Used)	Access
Kenya	Kenya Continuous Household Survey (KCHS)	2021	16,961	Kenya National Data Archive (KeNADA)
Ethiopia	Ethiopia Socioeconomic Panel Survey (ESPS) / HICES, Wave 5	2021–22	4,959	Ethiopian Statistical Service (ESS)
Uganda	Uganda National Household Survey (UNHS)	2023/24	1,576 (BOMA subset)	Uganda Bureau of Statistics (UBOS)

Note: The ESPS sample excludes Tigray and has reduced coverage in some regions due to security concerns; estimates are representative of the rest of Ethiopia.

A.2 Variable Construction

All variables were harmonized to a common set of definitions across the three countries.

A.2.1 Annual Household Expenditure (*Demand*)

- **Kenya:** Derived from KCHS 2021 consumption aggregates. Monthly per capita expenditure (`padqexp`, Paasche-deflated) is multiplied by adult equivalent scale (`adq_scale`) and then by 12 to obtain annual household expenditure in Kenyan shillings (KES).
- **Ethiopia:** Total annual household consumption in birr (`total_cons_ann`) is taken directly from the ESPS 2021/22 consumption aggregate file.

¹¹⁰ All quantitative analysis was conducted using Stata 18, with robust (Huber-White) standard errors reported throughout.

¹¹¹ Kenya Continuous Household Survey 2021 microdata accessed via Kenya National Data Archive (KeNADA); Ethiopia Socioeconomic Panel Survey Wave 5 (2021/22) accessed via Ethiopian Statistical Service; Uganda National Household Survey 2023/24 microdata accessed via Uganda Bureau of Statistics (UBOS).

- **Uganda:** Monthly household expenditure in constant prices (rexp30) from the UNHS 2023/24 consumption module is multiplied by 12 to obtain annual expenditure in Uganda shillings (UGX).

A.2.2 Wealth Index

- **Kenya:** Constructed using Principal Component Analysis (PCA) on housing characteristics: floor material, roof material, wall material, water source, toilet facility, lighting fuel, cooking fuel, dwelling type, and tenure status. The first principal component was retained and standardized within Kenya.
- **Ethiopia:** Constructed using PCA on housing characteristics from the ESPS housing file, including floor, roof, wall, water source, toilet, lighting fuel, cooking fuel, and tenure status.¹¹² The first principal component was retained and standardized within Ethiopia.
- **Uganda:** Constructed as the total estimated value of household assets, summed per household from the asset file (HSEC12.dta) and standardized within Uganda.

A.2.3 Household Size and Female Head

- **Household size:** Taken directly from the household roster (hsize or equivalent variable).
- **Female head:** Dummy variable equal to 1 if the household head is female, derived from the sex-of-head variable in each survey.¹¹³

A.2.4 BOMA Region Indicator

Households were classified as located in a BOMA-active region based on program operational geographies:¹¹⁴

- **Kenya:** Seventeen counties where BOMA has operated: Samburu, Isiolo, Laikipia, Kajiado, Makueni, Taita-Taveta, Kitui, Turkana, West Pokot, Baringo, Mandera, Wajir, Garissa, Tana River, Marsabit, Kisumu, Murang'a.
- **Ethiopia:** Oromiya region, where BOMA's Green REAP and other programs are implemented (region code 4 in ESPS).
- **Uganda:** Sub-regions Karamoja and West Nile, which contain the districts where BOMA operates.¹¹⁵

A.2.5 Survey Weights

- Kenya: weight_hh (household weight) from KCHS.
- Ethiopia: pw_w5 (household survey weight) from ESPS consumption file.

¹¹² ESPS housing file sect10a_hh_w5.dta; variables used: s10aq09 (floor), s10aq08 (roof), s10aq07 (wall), s10aq21 (water), s10aq12 (toilet), s10aq34 (lighting), s10aq38 (cooking), s10aq02 (tenure).

¹¹³ Kenya: a11_; Ethiopia: slq02; Uganda: R02.

¹¹⁴ Based on BOMA Project program documents (2023–2026): CASHA, LIFT Northern Kenya, REAP for Nutrition, Green REAP, REAP for Youth/SEED, KUZA 2.0, NAWIRI/R4N, Lishe Bora, EMIT, PSGP; Caritas Switzerland (2024) BOMA Partnership in Ethiopia; PAMANA Project (2024) PAMANA Technical Brief; CRS Nuyok Project (2023).

¹¹⁵ Districts in Karamoja: Abim, Nakapiripirit, Nabilatuk, Napak; in West Nile: Koboko, Yumbe.

- Uganda:mult (household weight) from UNHS.

A.3 Model Specification

Separate weighted linear regressions were estimated for BOMA-active regions and non-BOMA regions. The dependent variable is annual household expenditure measured in **thousands of local currency units**. All continuous predictors were standardized within each country to allow cross-context comparison.

The estimating equation is:

$$Demand_{hct} = \theta_0 + \theta_1 WealthIndex_{hct} + \theta_2 HHSize_{hct} + \theta_3 Female_{hct} + \alpha_c + \epsilon_{hct}$$

Where θ_1 is the effect of wealth on expenditure, θ_2 the effect of household size, θ_3 the expenditure gap associated with female headship, and α_c denotes country fixed effects (Kenya omitted as baseline). Regressions were estimated using survey-weighted least squares with probability weights and robust standard errors.¹¹⁶

A.4 Market Sizing Calculation

Total annual market size for each subgroup is computed as the weighted sum of annual household expenditure:

$$Total\ Market_s = \sum_{h \in S} Demand_h \times w_h$$

where s denotes the subgroup and w_h is the household sampling weight. Calculations use original (unscaled) expenditure variables. Results are converted to USD using approximate exchange rates: 130 KES/USD, 130 birr/USD, and 3,700 UGX/USD.

B. Impact Evaluation of Graduation Programs on Household Income

This analysis estimates the causal effect of BOMA's graduation programs on household income using a difference-in-differences design with country fixed effects and a gender interaction term.¹¹⁷ The analysis pools participant-level panel data from seven BOMA programs across Kenya, Ethiopia, and Uganda with repeated cross-sections from nationally representative household surveys that serve as control groups.

B.1 Data Sources

Treatment Data

¹¹⁶ The svy: regress command in Stata was used with probability weights (pweight).

¹¹⁷ The difference-in-differences design compares the change in income over time between treatment and control groups, isolating the effect of BOMA's programs from secular trends. See Wooldridge, J. M. (2010) *Econometric Analysis of Cross Section and Panel Data* (2nd ed.), MIT Press.

Program	Country	Years	Waves	Source
KUZA 2.0	Kenya	2026	Baseline + Endline	BOMA internal M&E data ⁵
SEED / REAP for Youth	Kenya	2023–2024	Baseline + Endline	BOMA internal M&E data ⁵
NAWIRI / R4N	Kenya	2023–2024	Midline + Endline	BOMA internal M&E data ⁵
LIFT Northern Kenya	Kenya	2023–2025	Baseline + Endline	BOMA internal M&E data ⁵
Lishe Bora	Kenya	2024–2025	Baseline + Endline	BOMA internal M&E data ⁵
EMIT	Ethiopia	2022–2024	Baseline + Endline	BOMA / Caritas Switzerland ⁶
PSGP	Uganda	2023–2024	Baseline + Endline	BOMA internal M&E data ⁵

Control Data

Country	Survey	Year(s)	Observations Used	Access
Kenya	Kenya Continuous Household Survey (KCHS)	2020, 2021	3,898 (BOMA counties only)	Kenya National Data Archive (KeNADA) ⁷
Ethiopia	Ethiopia Socioeconomic Panel Survey (ESPS) / HICES	2018/19 (Wave 4), 2021/22 (Wave 5)	Oromia region only	Ethiopian Statistical Service (ESS) ²
Uganda	Uganda National Household Survey (UNHS)	2019/20, 2023/24	279 (BOMA sub-regions only)	Uganda Bureau of Statistics (UBOS) ⁸

Control observations are restricted to the same geographic areas as BOMA programs: for Kenya, counties 9 (Isiolo), 25 (Marsabit), 37 (Samburu), 43 (Turkana), and 46 (Wajir); for Ethiopia, Oromia region; for Uganda, the sub-regions of Karamoja, West Nile, and Acholi.

B.2 Variable Construction

All variables were harmonized across treatment and control datasets.

B.2.1 Income (Dependent Variable)

The dependent variable is monthly household income (or consumption expenditure) in local currency units. For the main specification, the natural logarithm is used: $\ln_income = \ln(\text{income} + 1)$. The +1 adjustment handles zero or near-zero income values.

- **Kenya Treatment:** Total monthly income constructed by summing all reported income sources (duka/kiosk, livestock sales, milk, eggs, charcoal/firewood, water,

fish, pension, meat, crops, employment, casual labor, services, remittances, cash transfers). Missing values recorded to zero.

- **Ethiopia Treatment:**Total monthly income constructed similarly, including HSNP cash transfers and other transfers.
- **Uganda Treatment:** Total monthly income from household business, support received, and other income streams.
- **Kenya Control:**Monthly household expenditure = $\text{padqexp} \times \text{adq_scale}$ (serves as income proxy).
- **Ethiopia Control:**Monthly household consumption = $\text{total_cons_ann} / 12$.
- **Uganda Control:**Monthly household expenditure = rexp30 .

B.2.2 Treatment and Post Indicators

- **Treatment:** Dummy = 1 for BOMA program participants, 0 for control households.
- **Post:** Dummy = 1 for endline/post-program observations, 0 for baseline/pre-program observations.

B.2.3 Female Indicator

- **Treatment:**Gender was assigned randomly within each treatment program based on confirmed female participation rates provided by BOMA, rather than relying on proxy variables in the survey data. The assigned proportions are:
KUZA: 70% female, 30% male
SEED / REAP for Youth: 60% female, 40% male
PSGP: 70% female, 30% male
LIFT, NAWIRI, Lishe Bora, EMIT: 100% female.
- **Control:** Female = 1 if the household head is female.¹¹⁸

B.2.4 Household Size and Survey Weights

- **Treatment:**Sum of adult females, adult males, and children for treatment; directly from household roster for control.
- **Survey weights:**Treatment observations receive weight = 1 (census of participants). Control weights: Kenya weight_hh , Ethiopia hh_weight , Uganda finalwgt .

B.2.5 Interaction Terms

- $\text{treat_post} = \text{treatment} \times \text{post}$
- $\text{treat_post_female} = \text{treatment} \times \text{post} \times \text{female}$
- Country-specific treatment effects: treat_post_kenya , $\text{treat_post_ethiopia}$, treat_post_uganda
- $\text{treat_post_female_pooled}$: pooled gender gap across countries

B.3 Model Specification

¹¹⁸ Kenya control: $\text{b04} == 2$; Ethiopia control: $\text{slq02} == 2$; Uganda control: $\text{R02} == 2$.

The analysis uses a weighted difference-in-differences model with country fixed effects and a triple interaction term. The estimating equation is:

$$\begin{aligned} \ln(\text{Income}_{ict}) = & \beta_1 \text{Treatment}_i + \beta_2 \text{Post}_t + \beta_3 \text{Female}_i + \beta_4 \text{HHSize}_{it} \\ & + \delta_{1K}(\text{Treat} \times \text{Post} \times \text{Kenya}) + \delta_{1E}(\text{Treat} \times \text{Post} \times \text{Ethiopia}) + \delta_{1U}(\text{Treat} \times \text{Post} \times \text{Uganda}) \\ & + \delta_2(\text{Treat} \times \text{Post} \times \text{Female}) + \alpha_1 \text{Kenya}_c + \alpha_2 \text{Ethiopia}_c + \alpha_3 \text{Uganda}_c + \varepsilon_{ict} \end{aligned}$$

Where $\alpha_1, \alpha_2, \alpha_3$ are country fixed effects (model estimated without intercept), δ_{1K}, δ_{1E} , represent program impacts for male participants in each country, and δ_2 is the **gender gap** in impact, the additional effect for female participants, pooled across countries and identified primarily from Kenya.¹¹⁹

Implied impacts for women are: Kenya women $\delta_{1K} + \delta_2$; Ethiopia women $\delta_{1E} + \delta_2$; Uganda women $\delta_{1U} + \delta_2$. The model is estimated using ordinary least squares with robust standard errors on the pooled sample of 16,795 observations, with survey weights applied as analytic weights.¹²⁰

B.4 Robustness Checks

Several checks were performed: (i) log versus levels specification, the log transformation enables cross-country comparability and reduces outlier influence; (ii) unweighted regression yields stable results; (iii) alternative gender specifications interacting gender with country are consistent with the pooled specification; (iv) winsorizing income at the 1st and 99th percentiles does not materially change coefficients; (v) including household size improves model fit without altering treatment effect estimates.

B.5 Social Return on Investment (SROI) Calculation

SROI is computed as the present value of incremental household income attributable to BOMA's programs divided by the per-participant program cost.¹²¹ Inputs and assumptions are summarized below:

Input	Kenya Men	Kenya Women	Ethiopia Women	Uganda Men	Uganda Women	Source
Baseline monthly income (LCU)	5,404 KES	5,404 KES	4,679 birr	205,128 UGX	205,128 UGX	Control group mean at baseline

¹¹⁹ The pooled gender gap coefficient is -1.822 (robust SE = 0.078). Because Ethiopia and Uganda treatment groups consist entirely of female participants, the gender gap is identified primarily from within-Kenya variation.

¹²⁰ The pooled sample includes 16,795 household-wave observations. Survey weights are applied as analytic weights ([aw=survey_weight]).

¹²¹ Program costs are provisional estimates pending final expenditure data from BOMA's finance records.

Percentage impact (%)	204.6 %	91.8%	38.2%	155.7%	42.9%	Log-linear DiD coefficients
Exchange rate (LCU/USD)	130	130	130	3,700	3,700	Approximate market rates, 2024
Program cost per participant (USD)	500	560	450	560	560	Average cost per participant from BOMA
Time horizon (years)	3	3	3	3	3	Assumed income persistence
Discount rate (%)	5%	5%	5%	5%	5%	Standard social discount rate

Calculation Steps: Annual gain (USD) = Baseline × Impact% × 12 / Exchange rate. Present value = Annual gain × $[(1 - (1 + r)^{-n}) / r]$ with $r = 0.05$, $n = 3$ (present value factor = 2.723). SROI = PV / Cost.

Limitations: actual income persistence may vary; spillover and non-monetary benefits are not included, making the reported SROI figures conservative lower bounds.

C. Digital Infrastructure and Mobile Money Adoption

This analysis examines how digital infrastructure (internet usage) influences mobile money adoption and how BOMA's programming amplifies this relationship. Data are aggregated by geographic unit and sex-disaggregated.¹²²

C.1 Data Sources and Variable Construction

C.1.1 Dependent Variable: Mobile Money Usage (*service_usage*)

- **Kenya:** County-level sex-disaggregated mobile money usage is estimated using a proxy method. National mobile money usage from FinAccess 2024 is 82.3% (female 81.2%, male 83.0%).¹²³ The ratio of each sex's national usage to the national average is applied to county-level formal inclusion percentages reported in FinAccess Table 2.2 (2024 column).
- **Ethiopia:** The 2024 national mobile money account ownership rate (19.4%, Global Findex 2025) is distributed between women and men in proportion to their share of mobile phone owners from the 2016 Ethiopia DHS (women 27.3%, men 54.8%).¹²⁴ Region-level estimates are obtained by assuming the relative distribution of phone ownership across regions remains a valid proxy.

¹²² The analysis covers 47 counties in Kenya, 11 zones in Ethiopia, and 17 sub-regions in Uganda, yielding 40 observations in the BOMA-active group (20 regions × 2 sexes) and 110 observations in the non-BOMA group (55 regions × 2 sexes).

¹²³ Central Bank of Kenya, Kenya National Bureau of Statistics, & FSD Kenya (2024) FinAccess Household Survey 2024.

¹²⁴ World Bank (2025) Global Findex Database 2025; Central Statistical Agency [Ethiopia] & ICF (2017) Ethiopia Demographic and Health Survey 2016.

- **Uganda:** Mobile money usage is derived from the 2024 Census Table 13.3, summing the three "yes" categories.¹²⁵ Sex-disaggregated sub-regional figures are estimated using national sex-specific totals from the same table.

C.1.2 Independent Variables

Infrastructure (Internet Usage)

- **Kenya:** County-level internet usage for youth (18–34 years) from the ICT Analytical Report (2023/24 KHS).¹²⁶
- **Ethiopia:** 2016 regional internet usage estimates (DHS Tables 3.5.1 and 3.5.2) are scaled to 2024 using the national internet usage rate from Internet Society Pulse (2024).¹²⁷ The 2016 national average is 8.25%; with a 2024 national rate of 19%, the scaling factor is 2.30.
- **Uganda:** Sub-regional totals from Census 2024 Table 5.5 are used directly.¹²⁸

Expenditure (Household Economic Capacity)

- **Kenya:** Mean monthly consumption per adult equivalent by county from the 2022 Kenya Poverty Report (Table 3.2).¹²⁹ 2022 values are used as a proxy for 2024.
- **Ethiopia:** Regional household expenditure is estimated by combining national per capita consumption¹³⁰ with regional cost-of-living multipliers derived from NFNH/Food ratios in the 2020 Ethiopia Socioeconomic Survey, then multiplying by average household size from the 2016 DHS.
- **Uganda:** Sub-regional values are taken from UNHS 2023/24 Table 6.7.¹³¹

C.2 Geographic Units and Sample Sizes

The analysis covers 47 counties in Kenya, 11 zones in Ethiopia, and 17 sub-regions in Uganda. After sex-disaggregation, this yields 40 observations in the BOMA-active group and 110 observations in the non-BOMA group.

C.3 Model Specification

Separate weighted linear regressions were estimated for BOMA-active regions and non-BOMA regions:

$$ServiceUsage_{rcs} = \gamma_0 + \gamma_1 Infrastructure_{rc} + \gamma_2 Expenditure_{rc} + \gamma_3 Female_s + \phi_c + v_{rcs}$$

Where indexes region, c country, s sex; $Infrastructure_{rc}$ is internet usage percentage; $Expenditure_{rc}$ is average household expenditure; $Female_s$ is a dummy for female

¹²⁵ Uganda Bureau of Statistics (2024) National Population and Housing Census 2024 – Final Report Volume 1.

¹²⁶ Kenya National Bureau of Statistics (2024) ICT Analytical Report 2023/24.

¹²⁷ Internet Society Pulse (2024) Global Internet Usage Data.

¹²⁸ Uganda Bureau of Statistics (2024) National Population and Housing Census 2024 – Final Report Volume 1.

¹²⁹ Kenya National Bureau of Statistics (2022) 2022 Kenya Poverty Report.

¹³⁰ United Nations National Accounts (2024) Consumption Expenditure Data.

¹³¹ Uganda Bureau of Statistics (2024) Uganda National Household Survey 2023/24 Report.

observations; and ϕ_c denotes country fixed effects (Kenya omitted as baseline). Regressions are estimated using ordinary least squares with robust standard errors.¹³²

¹³² BOMA-active regression: N = 40, R² = 0.936; non-BOMA regression: N = 110, R² = 0.974; both p < 0.001.

Annex E: Literature Review

Purpose and Scope

This literature review was developed to support the Columbia University capstone team's market analysis and inform their key informant interviews (KIIs). It also serves as an analysis of documentation supplied by BOMA to the capstone team as well as the team's independent research into other NGOs that conduct their own poverty graduation programs. The purpose of this literature review is to synthesize evidence found in these documents of how NGOs such as BOMA can more effectively leverage and broker private-sector partnerships in last-mile markets, with particular attention to women's and youth livelihoods in Kenya, Ethiopia, and Uganda.

The research into the existing literature was an in-depth review that aligned with the Terms of Reference and Inception Report produced by the capstone team at the onset of this project. Thematically, it examines programmatic outcomes; broader market, policy, and ecosystem conditions, which enabled the team to identify existing information gaps within the provided materials that needed to be addressed and filled in by other sources. These gaps included policy and institutional integration; market systems and private-sector engagement; financing and program sustainability; data, measurement, and comparative rigor; and ecosystem role and institutional positioning. Addressing these gaps will be crucial when it comes to engaging partnerships at scale.

Although BOMA presents strong evidence of programmatic success—particularly in income gains, resilience, and graduation model effectiveness—this review also identifies the missing structural and ecosystem-level data that are insufficiently documented and are necessary to support long-term scale up of programs through strategic partnerships with private entities, governments and other NGOs. As a result, the scope of this review extends beyond simple analysis of successful program outcomes to include evidence on market systems development, partnership facilitation, and private-sector engagement.

Review Approach

The team first delved into material supplied directly from BOMA, most of which are publicly accessible on their website. Documents provided included, but were not limited to, a Longitudinal Study of REAP, REAP for Youth Learning and Impact Report, and USAID NAWIRI Mercy Corps BOMA Joint Graduation Learning Product. Furthermore, the team independently reviewed reports from other NGOs and organizations with a similar mission to BOMA, such as BRAC and Caritas International, as well as materials from governments and multilateral organizations.

In terms of the BOMA-supplied materials, the analytical depth of the documentation can be strengthened by disaggregating data by gender, age, and business type, thereby improving its alignment with policy or market opportunities. As a result, comparative

analysis across programs and countries is limited. As BOMA makes observations across the region, standardization and comparability of data will become increasingly important. However, it is noted that the documentation provided is publically available and may need to cater to a general audience and may not have been intended to provide analysis in that way.

Conceptual Framework

The research for this project is guided by the question: How can BOMA as an NGO leverage private sector, government, and other NGO partnerships to foster sustainable livelihoods for women in last mile communities in East Africa? As a result of this question, a framework can be built around the role of NGOs as an intermediary actor between the population it serves and policymakers, the contextual conditions of last-mile communities and markets, the partnership mechanisms that would enable the participation of other actors, as well as outcomes that improve livelihoods and generate more resilient and sustainable communities. This conceptual framework steers the literature review to specifically answer the guiding question.

Program Model Clarity

The Rural Entrepreneur Access Program (REAP) “helps ultra-poor women build a pathway out of extreme poverty by providing them with seed capital, business and life-skills training, a savings program and two years of mentoring.”¹³³ The documentation clearly articulates the REAP model, its core components, and its potential for replicability. This model evidently aligns with BOMA’s overall objectives for poverty reduction and resilience building. Other NGOS, like BRAC, have also successfully employed graduation models in other countries and regions, such as in Bangladesh.

Country and Policy Context

Throughout the documentation there is limited country-level policy and regulatory mapping across the three countries of interest, namely Kenya, Ethiopia, and Uganda. As a result, despite reference to government partnerships, there is insufficient analysis of how SME regulations, financial inclusion frameworks, and public-private partnership (PPP) policies affect scaling. Country and policy contexts may be better informed through KIIs.

Government Engagement

Government engagement is evident in the described MOUs and formal partnership arrangements, which suggests that there is growing government interest and support

¹³³ BOMA, *Increasing Voice, Choice and Agency: An Analysis of BOMA Participants from the Bill & Melinda Gates Foundation Funded Cohort* (The BOMA Project, 2018), <https://www.boma.ngo/wp-content/uploads/2018/08/Analysis-of-the-Endline-Survey-for-the-REAP-WGCD-Cohort-8-30-18.pdf>.

of the poverty graduation model. However, pathways for the graduation model to be further embedded into government systems remain underdeveloped. Budget commitments, required policy changes, and institutional adoption mechanisms are not clearly mapped out and outlined. Cross-country comparisons of government functions are notably absent, thus limiting the insight into each country's contextual differences and potential need for adaptation regarding programs. This gap is relevant as BOMA seeks to engage the government in partnerships and funding agreements.

NGO Roles in Market Systems

BOMA's programs currently show strong economic resilience post-graduation. More specifically, there is clear evidence that participation in BOMA's programming results in increased income, asset accumulation, savings, and business formation. In addition, the graduation model is particularly effective among ultra-poor households.

However, BOMA may be missing an opportunity to use those gains to influence the broader market system in an intentional way. BOMA seems to recognize that markets matter, but does not show how the organization is working to practically influence those markets in a structured way. How local markets help small businesses grow is not clearly shown. BOMA's role in the broader ecosystem—whether as a policy advocate, program implementer, or otherwise—can be made more explicit as BOMA seeks further partnerships.

External evidence, such as other programs by BRAC and Village Enterprise, suggests that programming can and should better connect with market systems. For example, BOMA could connect participants to practical market opportunities in addition to providing training and mentorship. Through REAP, BOMA is already working to improve livelihood and well-being, so it has the opportunity to improve conditions for households even after program participation.

Private-Sector Partnerships Models

BOMA has had a strong micro-level impact, but tools that would combine public and private financing are also not discussed. Increased private-sector actor involvement in BOMA's programs will have significant impact on scalability, sustainability, institutionalization, and potentially financial viability.

The central finding of this review is that while BOMA demonstrates strong micro-level impact, documentation does not yet sufficiently support claims of systems transformation; market ecosystem strengthening; financial sustainability at scale; institutional embedding within government structures; nor private-sector integration.

Women and Youth Livelihoods in Last-Mile Contexts

Gender and social inclusion are key aspects of BOMA's graduation program. Graduates are better equipped to run businesses and share their knowledge and experiences with others. According to BOMA, 58 percent of REAP program graduates provide business advice to others, with 77 percent sharing information with current and past REAP participants, and 64 percent sharing business information with women not in REAP.¹³⁴ This data clearly demonstrates that REAP graduates feel more empowered to step into mentorship and community engagement roles after graduation, which is particularly important for BOMA as mentorship is demonstrably crucial to the effectiveness of their program.

Enablers, Facilitators, and Constraints

BOMA's financing strategy for its programs is under-articulated, and therefore, there is limited discussion of cost-sharing models or PPP arrangements. Fiscal sustainability beyond government co-financing and external grant funding is not adequately addressed. BOMA also needs to better emphasize the success of its model as it acknowledges that there are gaps, writing that the purpose of its Longitudinal Assessment of Reap was to add to the "existing yet *limited knowledge* on the long-term impact of BOMA's poverty graduation model" (*italics added*).

Implications for BOMA

BOMA has effective program implementation with strong household-level impact. However, for the organization's next growth phase, it will need to leverage the private sector for scale.

¹³⁴ "A Longitudinal Assessment of REAP: A Follow-Up on Program Participants 3-5 Years After Graduation," The BOMA Project, June 2018, <https://www.boma.ngo/wp-content/uploads/2018/10/Longevity-Study-Exec-Summary.pdf>.

Annex F: Bibliography

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