The Lab

RESILIENT MUNICIPAL MARKET FUND (REMARK)

INSTRUMENT ANALYSIS
SEPTEMBER 2024

Resilient Municipal Market Fund (ReMark)

LAB INSTRUMENT ANALYSIS
September 2024

DESCRIPTION & GOAL

Blended finance facility targeting urban food markets in Africa to build infrastructure resilience, reduce food waste, improve food security, safeguard vulnerable livelihoods, and reduce greenhouse gas emissions. The facility provides debt, grants, and technical assistance to support municipal markets in building resilience and emissions reduction features.

SECTOR

Climate Resilience; Energy; Renewable Energy; Land Use/AFOLU; Sustainable Agriculture; Sustainable Cities; Urban Infrastructure; Water/WASH; Water

FINANCE TARGET

Grants: Foundations, Governments
Concessional Investments: Development Finance Institutions, Guarantee Providers, Family Offices
Commercial Investments: Banks, Impact Investors

GEOGRAPHY

For the pilot phase: Kenya, Mozambique, South Africa, Tanzania, Zambia
In the future: All of Africa

The Lab identifies, develops, and launches sustainable finance instruments that can drive billions to a low-carbon economy. The 2024 Lab cycle targets four thematic areas (mitigation, adaptation, high-integrity forests, and sustainable agriculture and food systems) and five geographic regions (Brazil, East & Southern Africa, India, Latin America & the Caribbean, and the Philippines).

AUTHORS AND ACKNOWLEDGEMENTS

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SUMMARY

Urban food markets are key nodes in African urban food systems. These markets are at high risk from climate impacts (e.g., extreme heat impact on produce viability and extreme storm impact on market infrastructure), but also hold enormous potential to build systemic resilience and to be drivers of low-carbon growth. There is a lack of suitable finance mechanisms to upgrade and build resilience of African urban food markets (retail and wholesale), especially for markets that support the most vulnerable consumers and retailers.

The Resilient Municipal Market Fund (ReMark) aims to unlock private investment in local urban food markets through donor support for a grant-based technical assistance (TA) facility and a blended debt facility. The instrument's TA arm will provide grant funding to support municipalities with project preparation for their municipal markets. Municipal market investment will be co-designed with market owners who own the project and can access funding from the loan facility.

Assessed against the Lab criteria, ReMark is:

- **Innovative**: ReMark is uniquely focused on the provision of private debt to urban retail food markets across Africa. Other approaches (detailed in Table 9) have targeted key elements of agrifood systems and urban infrastructure across Africa, but ReMark is clearly differentiated in its target pipeline (existing urban food markets) and structured inclusion of private debt.
- **Actionable**: The ICLEI Africa implementing team is ready to take this instrument forward and to seek partnership with a facility manager. The team has extensive connections to local government partners and relevant markets engaged in programs, including AfriFOODlinks, FS-Invest, the Food and Agriculture Organization (FAO), GIZ, and the Global Alliance for Improved Nutrition. The ICLEI Africa team has a clear vision of the organization's role as a facility enabler, ready to leverage the comparative strengths of its food systems partners and management of its project preparation facility, to collaborate with the facility manager to build market resilience.
- **Financially Sustainable**: The instrument will leverage a first-loss tranche and potentially a guarantee to build the facility's ability alongside grants and technical assistance to bolster multiple avenues for potential cash flows within the markets: fees, servitization, and rent structuring.
- **Catalytic**: The instrument will demonstrate the viability of climate-smart upgrades to urban food markets as an investable asset class, which will enable scaling across Africa and even to other contexts, given the extensive ICLEI network and the pilot size, which is significant but reasonable.

The Lab Secretariat recommends that ReMark be endorsed to move into pre-implementation activities due to its performance against the Lab criteria. Following endorsement by the Lab, ICLEI Africa will seek to finalize the ReMark structure and market pipeline developed during the Lab analysis process and engage investors, philanthropies, and a facility manager for a first round of implementation.

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CONTEXT

Urban food markets are a cornerstone of food systems in African cities but face accelerating climate risks and significant challenges in accessing the capital markets. There are significant opportunities to invest in markets to build a low-emission, climate-resilient urban food system across Africa.

Urban food markets are a primary node of infrastructure on which the urban food system is built across Africa. Urban food markets refer to locally operated establishments within the food economy that offer a variety of food and non-food items, provide employment opportunities, and are characterized by their personalized service, negotiable pricing, and significant cultural and social roles (Cook, 2024). More than 80% of food consumed in the continent's growing cities passes through these food markets (Moustier, 2023). Market owners, farmers, vendors, and customers all participate in urban food markets — with a turnover of USD 200 billion to USD 250 billion annually across Africa (AGRA, 2020).

Urban food markets face accelerating climate risks that affect both their specific assets and activities and the broader agrifood system in which they are situated. Extreme heat, more frequent and intense precipitation and flooding, and other extreme storm events all threaten market infrastructure and reduce the viability of market operations. These risks and additional climate hazards, including drought, variable precipitation, and increased pest incidence, threaten the broader agrifood system and increase the need for resilient urban food markets to avoid exacerbating systemic stresses.

In addition, markets across Africa face significant challenges in accessing non-public capital and lack suitable finance mechanisms to respond to these risks and advance low-carbon development. Indeed, adaptation finance is particularly scarce for agrifood systems in general, representing just 1.1% of total project-level climate finance globally.

Rapid urbanization across Africa is increasing both the potential for growth and the importance of urban food markets within the agrifood system.

CONCEPT

1. INTRODUCTION TO THE INSTRUMENT

1.1 TARGET PIPELINE

ReMark's pipeline has two layers of classification: 1) the type of urban food market it will target and 2) within those markets, the type of project it enables those markets to invest in.

ReMark has identified three types of urban food markets that it will target across Africa through its revolving debt facility and TA facility. Markets vary according to their revenue volume, revenue collection rate, ownership structure, and financial maturity and are classed as A) highly functioning, B) moderately functioning, and C) challenged, as shown in Table 1. At present, type C markets struggle with revenue collection to the point that they lack the financial capacity to invest in upgrades (e.g., cold storage, ripening facilities, and solar PV) to resolve these issues.

The facility aims to provide dedicated TA support to help individual markets that are lower on the "ladder" of types to ascend from C to B.

Table 1. Market Typology Summary

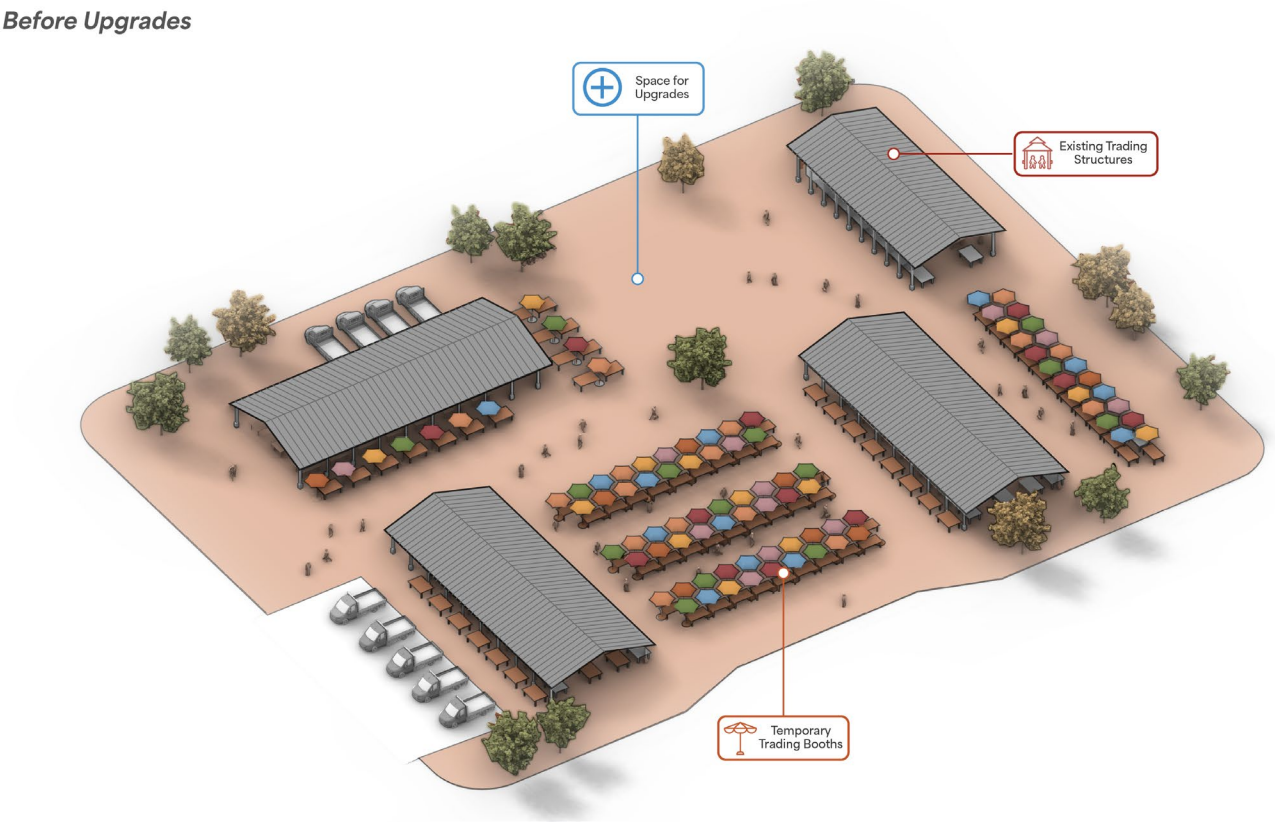
Indicative Characteristics	Market Type A	Market Type B	Market Type C
Market type summary	High-functioning, requiring upgrades.	Moderately functioning, bankability potential, requiring capacity building and upgrades.	Systemically critical, challenged market, weak bankability, requiring governance support, capacity building, and upgrades.
ReMark facility intervention	Revolving debt facility	Revolving debt facility and TA facility	TA facility
Revenue sources	• Sales commission (primary) • Rent • Service fees	• Rent (primary; ~80% or better collection rate) • Service fees	• Rent (primary; less than 80% collection rate) • Service fees
Annual revenue	≥USD 10 million	≥USD 500,000	<USD 500,000
Ownership	Private-owned or municipal subsidiary	Directly owned by the municipality or a PPP	Directly owned by the municipality
Financial maturity	The financial picture is well understood by the ownership and generates profits for the owner.	The financial picture is only somewhat understood by the ownership and appears relatively profitable.	Not profitable and potentially operating at a loss.
Examples	• Cape Town, South Africa • Johannesburg, South Africa • Windhoek, Namibia	• Quelimane, Mozambique • Kisumu, Kenya • Maputo, Mozambique • Lusaka, Zambia	• Arusha, Tanzania • Dar Es Salaam, Tanzania • Mbale, Uganda

Within these markets, ReMark will target a set of key retrofit activities that are prioritized based on market owner priorities, potential resilience and/or emissions reduction impact, revenue potential, and reported demand from market participants. These are summarized below and visualized in Figure 1 which illustrates the envisioned potential implementation of upgrades within a market.

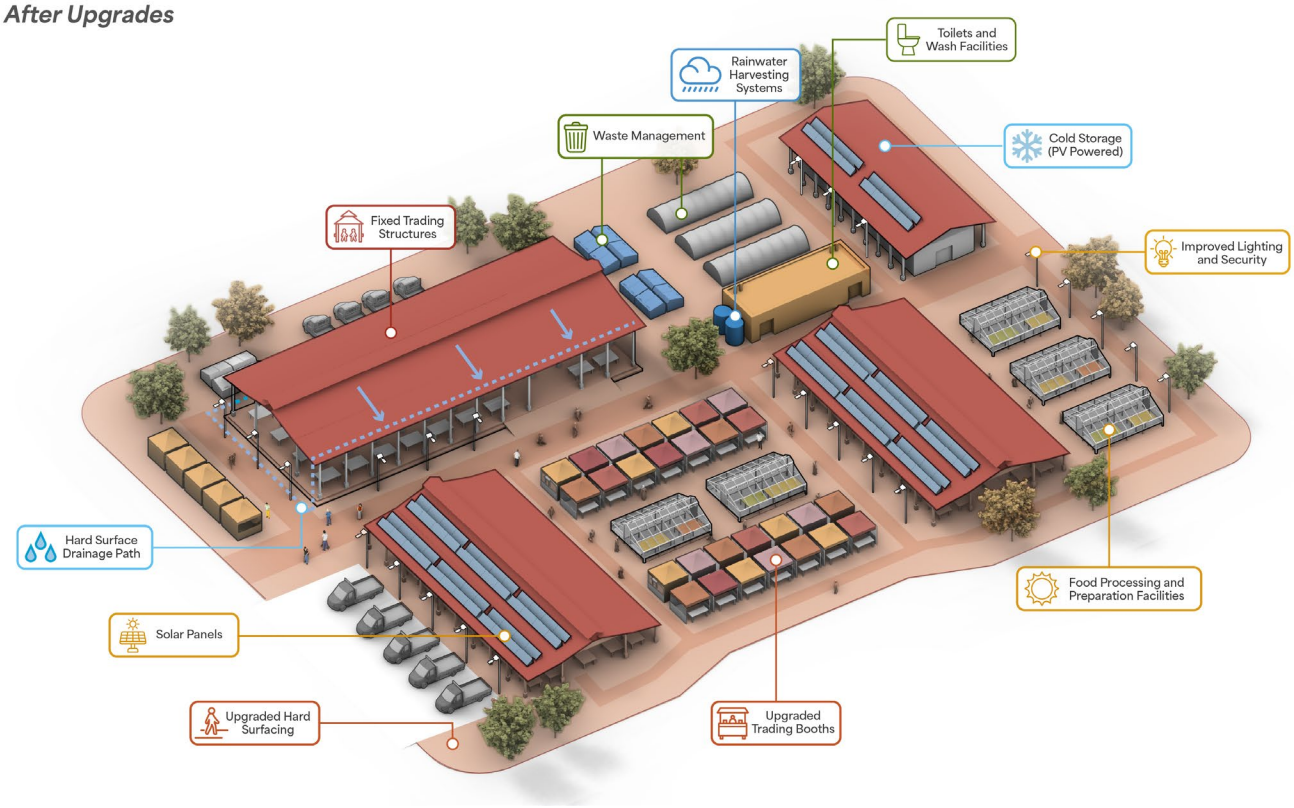
- **Upgrade 1: Cold Storage.** Cold storage units will be installed at markets where a fee for use is charged to traders per kilogram of food stored.
- **Upgrade 2: Off-Grid Solar PV.** Off-grid solar PV would be installed at markets and would power at minimum market lighting and potentially other upgrades including cold storage and water/sanitation services.
- **Upgrade 3: Food Processing.** Food processing could include solar drying, milling, fermentation, and packaging where the processing system would be installed at markets and likely a fee for use would be charged to traders.
- **Upgrade 4: Trading Structures and Bays.** Markets will install new bays and trading structures (upgrades from either no structure or limited existing structure) and would be able to charge rental fees for these new installations.
- **Upgrade 5: Roofing.** New roofing installed on existing trading structures where new cash flow is generated by an increase in willingness to pay for the space used.
- **Upgrade 6: Waste Management.** For the purposes of this analysis, the assumption is the installation of basic waste management and removal, not biogas. Future analysis could include biogas trialing for direct revenue generation.
- **Upgrade 7: Basic Utility Connectivity.** Assumed installation of lighting around the market, clean running water, and flushable toilets where returns are in the form of an increase in foot traffic yielding potential commission increase for market owners and a charge of small fees for use of toilets and water.
- **Upgrade 8: Hard Surfacing and Drainage.** Installation of basic surface and drainage systems to reduce flooding and with potential cash flow generation from increased foot traffic leading to increased revenue for the market.

Figure 1. Example Market Before and After Upgrades

Before Upgrades



After Upgrades



1.2 INSTRUMENT MECHANICS

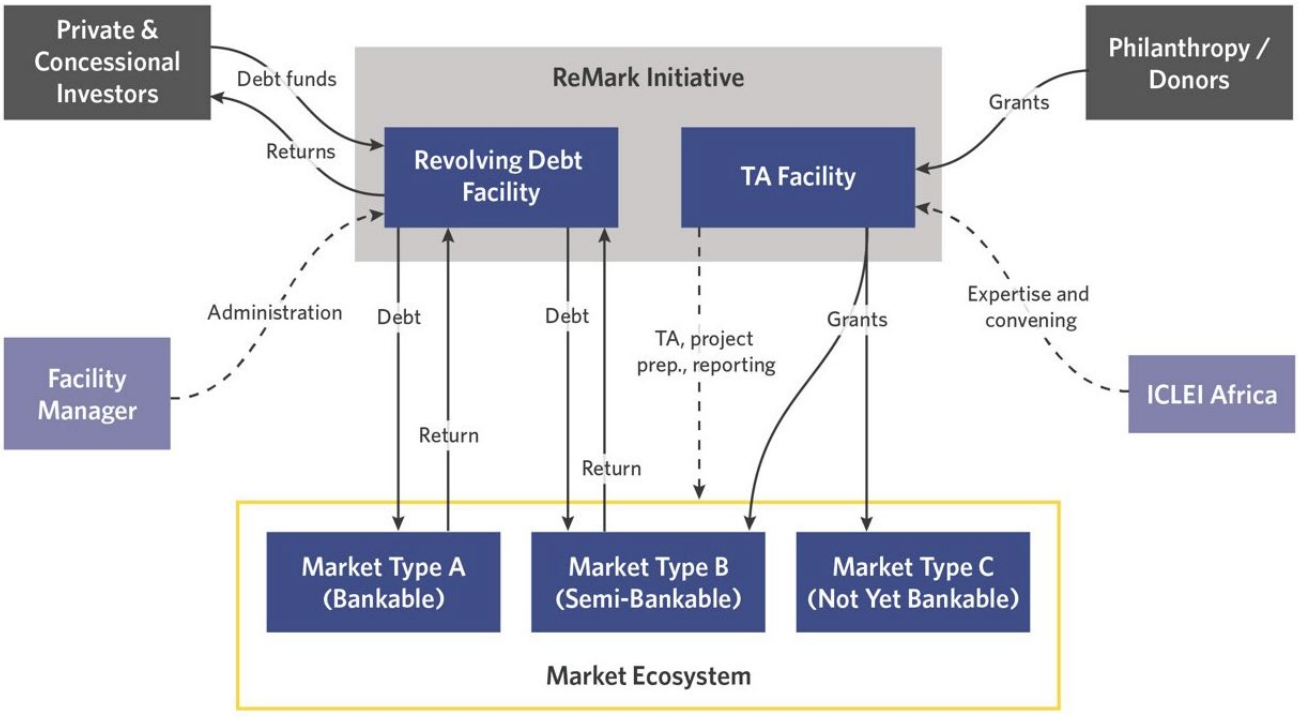
The ReMark instrument will consist of a revolving debt facility that offers loans to urban food markets for resiliency retrofits and a TA facility that will support project preparation to ensure readiness for upgrades and a robust pipeline of investments.

ReMark's revolving debt facility will invest in urban food markets across Africa to provide loans for resiliency retrofits. A TA facility will support markets in improving operations and preparing resiliency retrofit projects that could be suited for finance. The revolving debt facility will issue capital expenditure (CAPEX) loans with ticket sizes ranging from USD 0.5-10 million. These will be issued to highly and moderately functioning markets (classified as type A and B markets in Table 1).

Market owners (private, public, public-private partnerships) will take on this debt to invest in resiliency upgrades including solar-powered cold storage and improved drainage systems. They will service their loans with revenue growth provided by service fees collected from users of upgraded facilities and potentially government incentives such as feed-in tariffs for solar-PV generation at market sites. The fund will lend to type A and B markets, blending commercial and concessional capital to offer concessional interest rates to both market types. The debt facility will be managed by an external fund manager and will use a de-risking mechanism for its loans, likely an unfunded guarantee. This will reduce the risk for commercial investors in the revolving debt facility.

The TA facility, managed by ICLEI Africa, will consist of a project preparation facility (PPF) and capacity-building support for markets. The PPF will prepare markets to take on loans, help market owners identify resiliency retrofits, and support necessary preparation work. The TA facility will focus on supporting market types B and C.

Figure 2. ReMark Instrument Mechanics



1.3 TEAM INVOLVED

ICLEI Africa is a non-profit corporation headquartered in South Africa. The organization is part of the global ICLEI network, a system of over 2,500 local and regional governments committed to sustainable urban development. ICLEI Africa's extensive connections to local government partners have been helpful in the outreach stage for local market buy-in.

The team is currently working with relevant markets for AfriFOODLinks and in partnership with the FAO, GIZ, and the Global Alliance for Improved Nutrition. Through these activities, ICLEI Africa has been working with local governments in Africa to identify their market upgrading needs. ICLEI Africa has also begun a process of city-level market mapping and is piloting a market investment readiness assessment in Zambia and Malawi. ICLEI Africa is best positioned to act as a facility enabler, given its long history of working with local governments in the region and expertise in urban agrifood systems. It will secure a facility manager to carry out financial implementation. The process for outreach and evaluation of this manager is outlined in the near-term implementation process for outreach and evaluation of this action plan in Section 3.1.

Anticipated technical assistance (TA) and project preparation support that ICLEI Africa and associated sub-contractors would offer includes:

At the fund level:

- Regional pipeline development through assessment of regional market vulnerability, assessment of policy environments, and strategic priorities of local sub-national governments.
- Regional pipeline development through brokerage of relationships with local and sub-national governments.
- City-level market mapping and market investment readiness assessments.
- Advisory to fund manager on fund allocation.

At the project level:

- Project preparation:
    - Market and/or market cluster financial modeling.
    - Business model development for market owner.
    - Technical assistance in market design and development.
    - Technical assistance in technical write-up and proposal compilation.
    - Municipal- and market-level capacity building on market operation and management.
- Monitoring and evaluation of market upgrading.
- Stakeholder inclusivity, consultation, and coordination during project preparation phase.
- Support in stakeholder management and coordination during project preparation phase.

2. INNOVATION

ReMark is the only facility focused on providing private debt to build the climate resilience of urban retail food markets across Africa.

2.1 MARKET BARRIERS ADDRESSED

ReMark is designed to address the central barriers that have stymied the finance needed to build the resilience of urban food markets in Africa to date, which are summarized in Table 2.

Table 2. Market Barriers Addressed

Market Barrier	Description
Focus on greenfield development	To date, finance to urban food markets has largely focused on greenfield development rather than retrofits. ICLEI Africa has leveraged its expertise and connections to engage dozens of existing urban food markets to identify a pipeline of markets suitable for retrofits.
Funding not fit for purpose	Existing funding for urban food systems is not fit for the purpose of municipal retail markets. The debt finance offered via ReMark will be structured to focus on retail markets and will be flexible to the varied ownership structures of these municipal markets.
Murky market financial picture	Municipal market owners often have only a limited understanding even of their own market financials: The TA arm of ReMark will provide grant funding and direct assistance to market owners to support project preparation, including internal financial review and support for retrofits and refurbishments.

2.2 COMPARATIVE INSTRUMENT ANALYSIS WITH OTHER APPROACHES

ReMark is unique among facilities aiming to address the climate finance gap facing Africa's agrifood system due to its exclusive focus on local currency loans to support urban food market resilience.

Instruments that aim to build resilience across agrifood systems typically offer financing to the production side of the market (agriculture and farming), rather than investing in resilience within the distribution segment (transportation, storage, and consumer supply). Only AfDB's Markets and Agricultural Trade Improvement Programme has similarly focused on urban food markets (AfDB, 2024). However, this initiative, which is set to conclude in 2024, primarily aimed to improve markets' commercial operations and was only implemented in Uganda.

Other comparable financing facilities (detailed in the Annex) supporting urban infrastructure projects tend towards large ticket sizes (>USD 5m), leaving a finance access gap for smaller projects such as urban food markets. This instrument will provide financing and TA to support upgrades to a wide array of food markets to make them more climate resilient while also improving their commercial performance and ability to distribute food.

IMPLEMENTATION AND FINANCIAL ANALYSIS

3. IMPLEMENTATION PLAN

ReMark's implementation pathway will include identifying a facility manager to launch an approximately USD 35 million pilot project prior to launching the USD 50 million facility to invest in markets across Africa.

3.1 NEAR-TERM IMPLEMENTATION

ReMark aims to pilot in six municipalities across East and Southern Africa starting one-year post-facility manager identification, centering initial activities on urban food markets in which ICLEI Africa has existing contacts and access to critical contextual information. The pilot group will be comprised of large urban food markets that are financially and operationally well-positioned to invest in market upgrades (Type A and some Type B markets) and medium-to-small produce markets that require TA alongside concessional finance support (Type B and Type C markets).

The pilot phase will start by deploying TA resources to complete investment readiness assessments, survey market upgrade needs, and prepare market management for financing and operating the upgrades. Concurrently, the debt facility manager would engage Market Type A borrowers to establish borrowing terms, while also raising capital for the fund.

ICLEI Africa is currently undertaking a market mapping exercise and developing an investment readiness assessment tool through field work in Lusaka (Zambia). The tool characterizes the quality of an urban food market's governance structure, investment potential, and infrastructure using a series of indicators and comprehensive surveys, which then are synthesized to provide an overall indication of the feasibility of investing in market upgrades. This framework will be integrated into ReMark and scaled to support the structuring of an investment pipeline.

After urban food markets are screened into the ReMark investment pipeline using the investment readiness tool, they will undergo project preparation through the TA facility. The project preparation process will aim to "graduate" the markets to investment from the debt facility by training market managers to operate upgrades, improve the collection of fees and rents, and establish and manage financial accounts.

Once markets have reached a level of operating performance that supports borrowing capacity at ReMark's minimum ticket size, the debt facility manager will engage the market ownership and management team to construct a loan.

Overall, near-term implementation of ReMark's pilot phase will be undertaken through the following sequence, detailed further in the Annex.

- **Year 1: Pipeline Screening & Project Preparation**. Steps include regional assessments (climate vulnerability assessments and policy and financing arrangement analysis), city selection and detailed local assessments, city-level food market mapping, the establishment of a city-level task team and proposed bundling of urban food markets and/or SPV structure, market needs assessments, public consultations and revised needs assessments of shortlist markets.

- **Years 2-3: Project Preparation & Capital Deployment.** Steps include detailed economic modeling and business model development with local stakeholders, facility design, execution of planning and approvals processes, upfront operational training and management training support, capital raising for the debt facility, and loan origination.
- **Years 4 onwards: Continuing Support Activities & Scaling.** Steps include ongoing operational, management support and MEL, and post-pilot recapitalization and scaling.

3.2 APPROACH TO REPLICATION AND SCALE

Within five years of launch, ReMark aims to raise an additional USD 50 million to expand TA and debt facilities, extending operations to markets across the African continent.

The expansion will be driven by the growth of the investment pipeline as lessons learned from the pilot phase will inform more effective deployment of TA and concessional finance resources to de-risk market Types B and C and demonstrate risk-adjusted returns to potential investors.

While, during the pilot phase, the ReMark debt facility will offer loans at interest rates well below commercial rates, successful cash flow generation through pilot phase project preparation and installation of market upgrades will enable to debt facility to subsequently lend at higher rates as market owners increasingly recognize the strong investment case offered by Remark. Larger debt tolerance and appetite for market upgrades among market owners will allow the Debt Facility manager to raise larger sums of post-pilot funding from commercial sources and reduce the facility's need for concessional capital.

Finally, any residual profits from the pilot phase can be plowed back into the TA facility to fund post-pilot investment readiness assessments and project preparation or provide working capital to support revolving lending activities. To the extent that further grant funding for the TA facility will be required for scaling, the deployment of these resources will be made more efficient by incorporating lessons learned from the pilot phase.

3.3 POTENTIAL CHALLENGES TO INSTRUMENT SUCCESS

ReMark faces the following key risks that could challenge the instrument's success:

Table 3. Implementation Risks and Management Approach

Risk	Management approach
Pipeline Risk: Market owners could be unable to take on debt or may default on loans, resulting in an insufficient pipeline for the ReMark instrument. If there is not an adequate pipeline of markets, the instrument may face challenges in fundraising or implementation.	ICLEI Africa will leverage its strong network of municipalities and actors working with urban food markets (e.g., Global Alliance for Improved Nutrition, World Food Programme) to develop a pipeline of bankable markets. The pilot of the revolving debt facility will initially engage privately owned or PPP-operated markets, which tend to be more bankable. However, in later stages of implementation, public entities will be considered. The TA facility will de-risk projects by preparing markets to take on debt and ensuring that projects themselves are bankable and well-managed. At the facility level, concessional first-loss capital will shield investors from losses due to expected defaults.
Project Risk: The project risk profile may be too high for many investors, who will be unfamiliar with CapEx loans to	ReMark will apply multiple screening rounds to ensure that urban food markets targeted for project-level investment support are capable of successfully operating upgrades and

the food markets segment. There is also a risk that the envisioned resiliency upgrade projects will be too small to meet the minimum ticket size required by many target investors. If the size and risk-return profile of investments are not aligned with investor expectations, fundraising for the instrument could be challenging.	meeting repayment obligations. Additionally, ReMark will aim to bundle projects across markets in a single city where relevant to increase ticket size and de-risk investment through efficient management. ReMark will shortlist projects within each city that have relatively low risk profiles and robust cash flow potential to optimize the loan bundles and protect investors from losses.
Operational Risk: There is a risk that challenges in the operation of the market retrofits could negatively impact cash flows, which could in turn limit borrowers' ability to service their debt, potentially leading to the need to refinance or default on loan repayments. Some key operational risks include underutilization of retrofits (i.e. that actual demand for use of retrofits is below projections) and under collection of fees.	To minimize risk that operational shortfalls negatively impact cash flows, the ReMark team plans to provide sufficient project preparation through TA and grants to ensure markets with the highest operational risk (Types B and C) operate efficiently, create demand for market occupants to use the upgraded facilities, and improve market management. This risk can also be mitigated during the market selection process. Market governance and the ability to collect fees will be a key selection criterion. Additionally, the ReMark team will conduct feasibility studies prior to lending and use that data to inform projections about upgrades utilization, minimizing risk of underutilization.
Implementation Risk: To implement the instrument, the ReMark team will need to identify and onboard a facility manager to oversee the revolving debt facility. Any challenges related to this could delay implementation, as ReMark needs the combined expertise and credibility of a fund manager and ICLEI Africa to create investor confidence.	The ICLEI Africa team will engage potential facility managers with Lab support. Facility manager mapping is a key priority, and the team plans to prioritize this during the first year post-Lab endorsement. The team will also try to benchmark facility manager fees and structures to better understand the resources needed to onboard a facility manager.
Construction Risk: Given the CapEx intensive nature of market upgrades financed by ReMark, there is a risk that retrofit construction and installation may be delayed or face cost overrun which could stall the repayment of the loans or require that market owners take on additional debt or find other ways to cover the costs, reducing the financial benefits of the retrofits.	To minimize construction risk, the ReMark TA facility will conduct pre-construction assessments of basic infrastructure for markets with highest construction risk (Types B and C) and then provide project preparation support to ensure that critical infrastructure needs are met, thus reducing the likelihood that construction will be delayed or that there will be cost overruns. Additionally, the ReMark upgrades rely on proven technologies, reducing the technology risk of new/innovation solutions.
Currency Risk: The ReMark facility will provide loans to market owners in local currency, meaning that the facility will bear the currency risk. If the local currencies that are being used to repay the debt deteriorate against dollar- or euro-dominated investments into the facility, there is a risk that the Facility will be unable to repay its investors.	Currency risk is challenging to mitigate and faced by the majority of investors in emerging markets. The ReMark team is considering ways to hedge currency risk and may consider how hedging might impact the cost of capital or overall expenses of the fund. In addition, first-loss capital and/or a guarantee could help to mitigate the risk of losses due to the depreciation of currency. This risk can also be somewhat mitigated during market/pipeline selection, whereby macroeconomic conditions such as currency stability can be assessed.

4. FINANCIAL ANALYSIS

4.1 OVERVIEW OF QUANTITATIVE MODELING

The pilot phase of this instrument will aim to provide loans to urban food markets to invest in operational and technical upgrades. These upgrades will increase markets' revenues by increasing the volume of service fees (e.g., higher payment rates of rents from tenants following an increase in quality of service delivery, usage fees for cold storage) and raising

produce sales turnover (via decreased food loss, improvements to basic infrastructure, addition of food processing stations, etc.) while also reducing operating costs (e.g., for electricity and waste management). For Type B and C markets that lack the borrowing capacity for upgrades and/or the operating resources to manage and maintain them, ReMark will provide grants and TA to de-risk lending and ensure proper use of funds.

Fundamentally, the financial viability of the ReMark instrument requires that the upgrades it finances produce aggregate net benefits to urban food markets (or alternative investors) that justify the costs and can be monetized to service debt. Quantitative modeling of cost-benefit analysis for cold storage and solar PV suggests that these upgrades do indeed provide private benefits sufficient to justify the costs of investment for a private borrower, as well as substantial social returns.

Cost-benefit analysis results for cold storage and solar PV upgrades are summarized in Table 4, analyzed over a 10-year period using a 6.5% discount rate. Both upgrades generate a promising potential return on investment: a nearly 24% investor internal rate of return (IRR) for cold storage and a more modest but positive 4% IRR for solar PV.

Table 4. Market Upgrades (Cold Storage and Solar PV) Cost-Benefit Analysis

Upgrade Type	Cold Storage	Solar PV
Summary of Costs		
Units Built	3 units	80 KW
Costs	CAPEX, Electricity Costs, O&M Costs	CAPEX, O&M Costs
CAPEX	($100k)	($100k)
Present Value (PV) of Private Costs	($140k)	($150k)
Summary of Benefits		
Benefits	Service Fees, Food Loss Avoided	Electricity Cost Avoided, Grid Emissions Abated
Annual Food Loss Avoided	27 metric tons	--
Annual GHG Emissions Reduced	7 tCO2e	75 tCO2e
PV of Gross Private Benefits	$230k	$130k
PV of Gross External Benefits	$10k	$70k
Return on Investment		
Private Benefit-Cost Ratio	1.59x	0.90x
Total Benefit-Cost Ratio	2.43x	1.37x
Investor Internal Rate of Return	23.58%	4.38%
Social Internal Rate of Return	41.66%	18.16%

4.2 ANALYSIS OF PRIVATE CAPITAL MOBILIZATION

Private capital mobilization through the ReMark instrument requires a strong pipeline of urban food market retrofit projects capable of generating sufficient free cash flows to

service commercial debt. To determine this pipeline of investments, market types targeted by ReMark are conceptualized as potential "asset classes" for facility investment.

Overall, quantitative modeling of cash flows across market types suggests that Type A markets can borrow from the ReMark debt facility with limited TA support. In contrast, Type B markets are eligible to borrow, provided that commercial performance is sufficiently improved through TA. Type C markets cannot borrow on the terms offered by the ReMark debt facility — to service these markets, an alternative project financing structure ("Upgrades SPV") is proposed, which would ringfence cash flows generated by market upgrades in order to service a loan from the debt facility. See a summary in Table 5.

Table 5. Market Type Modeling Inputs[1]

Asset Class	Market Type A	Market Type B	Market Type C	Upgrades SPV
Commercial Performance				
Revenue Structure	Commission, Rent, Service Fees	Rent	Rent	Service Fees
Yr. 1 Revenue	$39.14m	$1.07m	$0.03m	$0.12m
Yr. 1 Rent Collect. Rate	--	85.0%	40.3%	--
Yr. 1 EBITDA Margin	27.0%	22.5%	22.5%	77.59%
Financing Terms				
Min. Ticket Size	$5m	$0.5m	$0.5m	$0.5m
Debt Tenor (yrs)	8	10	10	10
Interest Rate	12.0%	6.5%	6.5%	6.5%
Target DSCR	2x	2.5x	2.5x	1.5x
Borrowing Eligibility				
Borrower	Municipally owned subsidiary	Municipality (direct)	Municipality (direct)	Private Entity w/ Muni. Guarantee
Est. Borrow. Capacity	$21.50	$0.55	$0.01	$0.57
Min. Loan Tenor DSCR	4.37x	1.65x	--	1.12x
Borrowing Eligibility	Yes	Yes	No	Yes

Quantitative modeling indicates that the Market Type A asset class is currently eligible to borrow from the ReMark facility on close to commercial terms, based on estimated free

[1] Collection rate as a percentage of expected total rent collection. The Type C figure is calculated based on financial reporting shared by a market manager. Additional surveys indicate that the fees collection rates for rent and other services range 10-60% across markets that fall in the Type C category. The 85% figure for Type B is not a calculated value and instead is a benchmark for the level of rent collection a market would need to reach in order to borrow at the terms offered by ReMark.

cash flows and an expected minimum ticket size of USD 5 million (12% interest rate; 8-year loan tenor). Even in a higher interest rate environment, Market Type A projects would still be likely to have adequate cash flow capacity to borrow from the facility.

Projects within the Market Type B asset class are potentially able to borrow from the facility against their current cash flows, but this is contingent on favorable economic conditions and borrowing terms that are below the market rate. To mobilize private capital for investments in the Market Type B asset class, matching grant funding may be necessary to ensure that returns are sufficiently high. Additionally, Type B urban food markets are quite heterogeneous in terms of commercial performance and economic circumstances, so TA may also be needed to ensure that these markets are eligible to borrow.

Finally, Type C markets are ineligible to borrow from the ReMark facility based on their current estimated cash flows, even assuming some profitability of the markets and below-market-rate borrowing terms. This is due to their very small revenues, which can further be attributed to low rent prices and collection rates. The following two options offer potential pathways to including Type C markets in the ReMark investment pipeline:

- **Option 1**: Leverage support from the TA facility to incrementally improve the basic commercial operations of Type C markets to the level of Type B markets over a 2–3-year time frame, enabling them to self-finance market upgrades.
- **Option 2**: Establish a public-private partnership (PPP) with a local private investor to own and operate upgrades to a Type C market owner through a "project financing" special purpose vehicle (SPV) structure. Municipalities would grant the partnership a concession to operate on market premises, then cash flows generated from the upgrades would be ringfenced and collected as service fees to service the debt and provide returns to the private investor. While the private investor would serve as the borrower, the municipality (or a partner) could also provide an unfunded guarantee to de-risk the loan, therefore ensuring that the project is successfully funded while also avoiding challenges related to municipal borrowing constraints. See Figure 5 in the Annex for a representative diagram of the PPP structure.

Modeling of Option 2 suggests that this structure would produce cash flows sufficient to facilitate borrowing from ReMark, with an estimated internal rate of return (IRR) of 16.73% to the independent borrower (well above the 6.5% interest rate). However, this is modeled on a set of upgrades with easily monetizable benefits — nine cold-storage units and 150 kW of solar-PV installed capacity — whereas upgrades that generate less monetizable benefits (e.g., shading and drainage) would likely yield lower returns. Yet, given that non-cash flow-producing upgrades will comprise a relatively minor proportion of the total loan proceeds used towards upgrades, overall investor returns should still substantially exceed the costs of borrowing once those upgrades are incorporated into the modeling exercise.

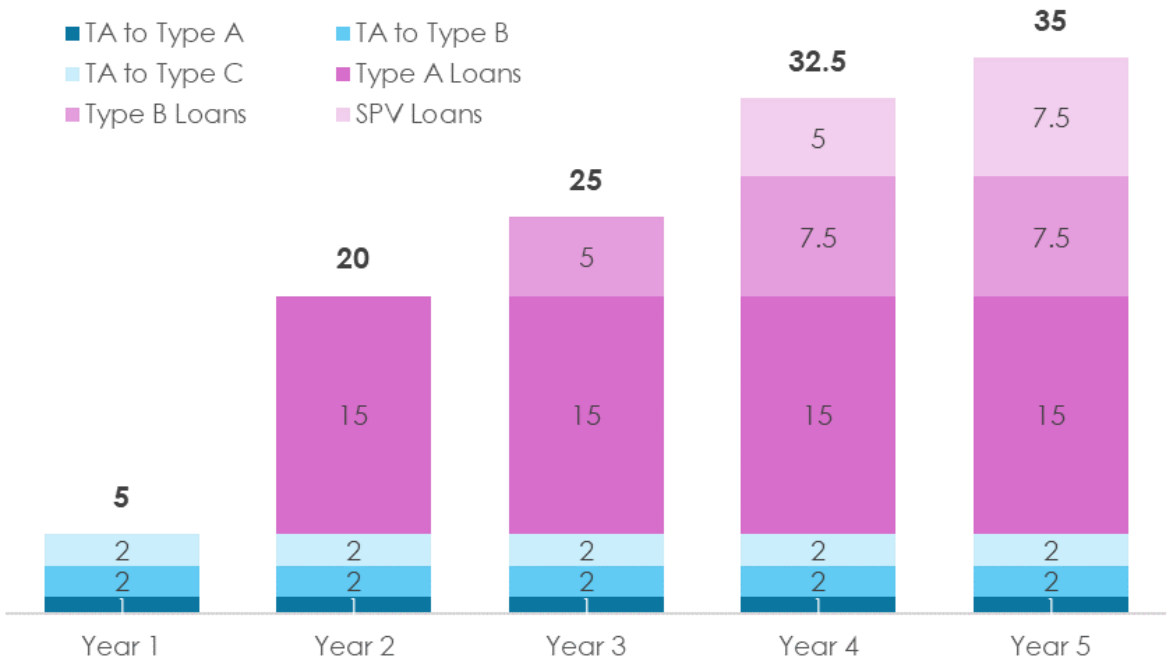
Establishing a successful PPP structure with a local private investor will be a critical task for the TA and debt facilities, given the constrained technical capacity and financial resources of target municipalities. To facilitate the "Upgrades SPV" approach, the debt facility will aim to bundle investment in retrofit projects to type C markets within the same municipality, so that a single PPP entity can own and operate upgraded facilities across several urban food markets. Furthermore, the TA facility will engage the private investor and the municipality to develop a business plan and operating system that ensures the PPP benefits from economies of scale and operational synergies related to bundling.

Ultimately, preliminary sourcing of investments across market types A, B, C and upgrades "SPV" asset classes will determine the structuring of the pilot phase capital stack. A projected structuring of the pilot phase investment pipeline is as follows:

- USD 15m in loans to Type A markets.
- USD 7.5m in loans to Type B markets.
- USD 7.5m in loans to Upgrade SPV entities.
- USD 5m of TA distributed across asset classes, but primarily targeting Type B markets and Upgrade SPV entities.

The pilot phase will deploy capital in a staggered sequence, with loans first granted to Type A markets, then lending to Type B markets and Upgrade SPV entities following "graduation" from the TA facility after 2-3 years of support.

Figure 3. ReMark Cumulative Capital and TA Deployment



Funding for the pilot phase will be comprised of senior debt, subordinate debt, and repayable grants, as well as non-repayable grants for working capital and TA facility activities. Subordinate debt and repayable grants will serve to protect the senior debt tranche from losses and will be repaid over a longer time period (see Figure 6 in the Annex for a visualization of ReMark's liability amortization).

Currently, quantitative modeling projects ReMark's net profit margin to be ~16%, before accounting for FX losses or loan defaults (and assuming a weighted-average cost of capital of 4.25%).[2] If expected FX losses and loan defaults are severe to the extent that the current

[2] Any residual net earnings after FX losses and loan defaults will be recycled into the TA facility to fund further project preparation activities.

net profit margin is insufficient to insulate ReMark investors from losses, larger shares of concessional capital will be needed.

Accordingly, the pilot phase capital sources and uses will resemble the following:

Table 6. Pilot Phase Capital Sources and Uses

Sources	Amount ($)	%	Uses	Amount ($)	%
Senior Debt	9m	25.5	Loans to Market Type A	15m	42.6
Subordinate Debt	12m	34.0	Loans to Market Type B	7.5m	21.3
Repayable Grants	9m	25.5	Loans to Upgrade SPV	7.5m	21.3
Working Capital Grant*	0.25m	0.7	Working Capital	0.25m	0.7
TA Grant*	5m	14.2	Technical Assistance	5m	14.2
Total	**35.25m**	**100**	**Total**	**35.25m**	**100**

** non-repayable*

While concessional funding will remain critical even as ReMark scales, the vision is to attract private investment over time to scale the senior tranche. This will eventually remove the need for repayable grant funding and narrow the subordinate tranche, which will be initially funded by concessional investors and donors. This is likely to be a relatively extended process, given the risks associated with this sector and geography.

PRE-INVESTMENT IMPACT ASSESSMENT

5. CLIMATE IMPACT

ReMark will support the development of a well-functioning food market system across Africa that minimizes emissions and is resilient to climate risks through systemic improvements in health, social capital, and livelihoods.

ReMark aims to improve the climate resilience of primary urban food markets across Africa by providing market owners with access to finance for market upgrades. The facility has the potential to deliver outcomes for both climate adaptation and mitigation through various project retrofits across food markets. As a key component of the social infrastructure, a well-functioning food market can deliver the following high-level climate outcomes:

1. **Enhanced resilience**: If successful, the retrofits will build the resilience of markets' assets and activities to climate-induced risks and disasters (such as heat stress, floods, droughts, etc.). This will be achieved through upgrades of existing infrastructure (such as roof shading and drainage systems) and utility services informed by climate risks across markets.
2. **Reduced emissions**: Renewable energy sources (most notably solar PV and solar-powered cold storage) can improve energy resilience and abate CO2 emissions by replacing diesel and coal-based electricity. Further, improved waste management practices at disposal sites through investment in waste disposal can reduce methane emissions caused by food waste.
3. **Sustainable opportunities for traders**: Climate-resilient urban food markets offer continued benefits to local traders who tend to source food from shorter supply chains which entail indirect environmental benefits (i.e. lower food miles and transportation requirements) leading to subsequent efficiency in the distribution of food.

Specifically, Table 7 captures the central adaptation and mitigation thesis for each retrofit envisioned as well as the total projected impact with an investment of USD 35m.

Table 7. Climate Thesis for Retrofits

Intervention	Climate Risks Addressed	Adaptation Thesis	Mitigation Thesis	Summary of Projected Impacts
Cold storage	Heat stress	**Strong:** Cold storage reduces the risk of food-borne pathogens caused by higher temperatures (heat stress) and increases food's shelf life, reducing post-harvest losses.	**Strong:** Abatement of methane emissions from food spoilage; improved energy efficiency.	Potential to deploy 500 cold-storage units. These upgrades are estimated to reduce food waste by 7,500 tonnes.
Off-Grid Solar PV	Extreme precipitation and storms	**Moderate:** Solar PV facilitates energy resilience by reducing the dependence on diesel generators and reduces vulnerability in case of failures in electrical power.	**Strong:** Abatement of carbon emissions.	Potential to install 7.5 MW of Solar PV. It is estimated to abate 8,122 tonnes of CO_2 emissions annually.
Food Processing (Solar Drying)	Heat stress; extreme precipitation	**Strong**: In climate hazards associated with increased food spoilage, drying allows the preservation of perishable crops and prevents insect infestation.	**Strong:** Abatement of carbon emissions	Increased food preservation resulting in reduced food loss and increased food security.
Trading Structures and Bays	Non-specific: systemic resilience building and ensuring food safety	N/A	N/A	Overall market functionality; structures and roof reduce the impact of adverse temperatures and rainfall, enabling more man-days per year for urban food traders.
Waste Management	Extreme precipitation and storms	**Variable:** Under feasible circumstances, "recycling food scraps and other organics into compost can also help our agricultural systems adapt to climate change by improving soil health".	**Strong:** Abatement of methane emissions from food wastage.	Improved drain management expected to reduce waste blockage and consequently lower the surface water contamination.
Utility Connectivity	Heat stress, extreme precipitation and storms	**Moderate:** Improve operational strength of utility infrastructure against storms and flooding.	**Moderate:** Emission reduction through reduced food spoilage.	Reduction in postharvest losses, sewage connectivity is expected lower cross-contamination and enhances sanitation and food safety.
Hard Surfacing and Drainage	Extreme precipitation	**Strong:** Improved drainage infrastructure allows absorption of rainwater and surface water management addressing risks of floods.	N/A	Reduced runoff and flooding volume, resulting in more operational man-days for food traders.
Roofing	Heat Stress; extreme precipitation, floods	**Strong:** Improves urban cooling by reducing the temperature of roof surface and reducing the water runoff during rainfall	**Moderate:** Reduction in heat transfer and energy requirement for cooling.	Collection of rainwater for usage in market, reduced pressure on borehole and wells as well as lower water runoff.

6. SOCIAL AND ECONOMIC IMPACT

ReMark aims to deliver a future where markets become increasingly vibrant sites of local economic and cultural activity, supporting low-income residents to accumulate the social and economic capital they require to exercise agency over their own futures. The objective of the facility is to enhance the resilience of Market Type A and enable the transition of Market Type B and C to Market Type A. By enhancing the functionality of the urban public market, it has direct and indirect benefits for different nodes of the food system i.e. consumption, distribution and livelihoods of various local actors.

Key targeted socioeconomic outcomes include:

1. **Improved livelihoods**: By targeting retrofits in urban food markets, ReMark aims to improve the economic well-being of stakeholders (including farmers, farming organizations, and food traders, etc.) through increased revenues and reduced operational costs of upgraded facilities.
2. **Enhanced food security:** Interventions financed via ReMark can extend shelf life and reduce wastage of perishable food items such as fruits and vegetables through improved food storage, handling, and inventory management across all market plans. This would enhance the buffer of food supply and improve food security and nutrition for people (particularly low-income households) dependent on key urban food markets in Africa.
3. **Increased market utilization:** The retrofits are envisaged to improve the utilization of local markets by enabling a better user experience (i.e., market design, food display, access, etc.). ReMark can facilitate increased engagement between market and food traders in city policy and spatial planning.

The cumulative climate and socio-economic impact can be measured at frequent intervals. Table 8 provides an example of indicators to measure the potential impact of the interventions both at an individual and aggregate level across targeted primary markets in Africa, and a full summary of potential impact indicators is in the Annex.

Table 8. Key Impact Indicators

Type	Category	Climate Indicators	Socioeconomic Indicators
Market	Output	• Number of retrofits/upgrades undertaken across all markets	• # of new and upgraded utility services

	Outcome	• Improvement in flood management
		  ○ Maximum flooding volume (cfs)
		  ○ Duration of flooding (hours)
		  ○ Depth of flooding (inches)
			• % of food traders with increased utilization of facilities (gender disaggregated)

Portfolio	Output	• Number of markets electrified through solar energy	• Number of markets supported with financial access for retrofits/upgrades
	Outcome	• Increased number of trading days due to resilience to extreme weather patterns (heat and rain)	• Increased utilization of markets as sites of social and cultural activity (# of events held)

ReMark will contribute to the advancement of multiple Sustainable Development Goals (SDGs), in particular: SDG 1 (eradicate poverty), SDG 2 (zero hunger), SDG 6 (clean water and sanitation), SDG 7 (affordable and clean energy), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and communities), SDG 12 (responsible consumption and production), and SDG 13 (climate action).

NEXT STEPS

As visualized in Figure 4, following Lab endorsement, ReMark will seek TA grants to fund the facility manager's operations, finalize the instrument structure, and begin marketing the facility to philanthropies, impact investors, and development finance institutions. In addition to seeking grant funding, ICLEI Africa will prepare a detailed budget and implementation plan for finalizing the facility's structure. Following structuring, the market pipeline will be finalized. The team will then seek USD 9 million in senior debt, USD 12 million in subordinate debt, USD 9 million in repayable grants, and just over USD 5 million combined in working capital and technical assistance grants.

Figure 4. ReMark Activity Timeline

Activity	Year 1 (H1)	Year 1 (H2)	Year 2 (H1)	Year 2 (H2)	Year 3 (H1)	Year 3 (H2)	Year 4 (H1)	Year 4 (H2)	Year 5+
Phase 1: Facility Design & Investment Pipeline Screening									
Secure funding for TA facility									
Draft facility structure, financial models, and fundraising terms, and term sheet offering.									
Regional- and city-level assessments, and city-level shortlisting.									
Convene city-level teams, public consultations, market categorization and market shortlisting.									
Phase 2: Facility Set Up & Project Preparation									
Facility manager mapping and outreach									
Select facility manager and negotiate facility manager agreement									
Fundraise and secure anchor investor support for first close.									
Implement investment readiness assessment, establish PPPs, develop business models.									
Approve and deploy TA support for project preparation, sign loan origination agreements.									
Phase 3: Facility Execution and Expansion									
Deploy capital									
Evaluate potential expansion into new markets and initiate second financing round.									

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ANNEX

Table 9. Comparable Financial Instruments

Instrument (Organization)	Instrument Description	Implementation Status	Similarities to ReMark	Differentiation from ReMark
Markets and Agricultural Trade Improvement Project (AfDB)	Aimed at reconstructing markets in 21 municipalities and urban communities in Uganda via debt financing. Phase 2 focused on improving marketplace infrastructure, adding value, and facilitating trade.	Phase 2 was executed from 2015 to 2024 with an estimated cost of USD 93.73 million.	Provision of debt financing to urban food markets.	Focus on a single country market (Uganda) with single-source concessional debt (AfDB).
Smallholder Resilience Ventures (SRV) (One Acre Fund; CPI)	SRV is a fund that will provide a mix of debt, mezzanine, and equity investments to agri-SMEs in climate-resilient value chains to create profitable opportunities for smallholders as they transition to climate-resilient crops.	At the fundraising and deployment stage, they are expected to reach commercial phase in 2027.	Similar regional and sectoral focus, but upstream of ReMark.	Lending to agri-SMEs rather than food markets. Ticket sizes are smaller than ReMark.
Global Agriculture and Food Security Program (World Bank, FAO, WFP)	Set of blended finance solutions investing in projects that may not attract commercial funding due to perceived high risks in the agricultural sector.	Mobilized over USD 2 billion in disbursed funds since 2010, including USD 440 million in private investment.	Targets agribusinesses in high-risk contexts. Financing covers entire value chains.	More focused on smallholder production than food storage and distribution, though it has worked on the issue in the past.
ACT Fund (ARM-Harith, CPI)	Blended–currency mechanism addressing barriers to urban infrastructure development in West Africa, such as transaction costs and lead times, while streamlining project exits to allow efficient capital redeployment.	Endorsed by the Lab in 2021 and should be nearing the end of the first year of deployment.	Similarly, it targets urban infrastructure projects.	Equity recycling structure is quite different than ReMark. Investment pipeline is mostly greenfield projects.

Table 10. Pathway of Implementation

Year(s)	Steps
Year 1: Pipeline Screening & Project Preparation	• **STEP 1**: Regional assessment, including climate vulnerability assessments as well as policy and financing arrangement analysis (1 month) • **STEP 2**: City selection and detailed local assessment (1 month) • **STEP 3**: City-level food market mapping (2 months) • **STEP 4**: Establishment of city-level task team and proposed bundling of urban food markets and/or SPV structure (3 months) • **STEP 5**: Market needs assessment, asset class categorization (Type A, B, C) investment readiness assessment (2 months) • **STEP 6**: Shortlist market selection (1months) • **STEP 7**: Public consultations and revised needs assessment of shortlist markets (2 months)
Years 2-3: Project Preparation & Capital Deployment	• **STEP 8**: Detailed economic modeling and business model development with local stakeholders based on consultations and needs assessments (3 months) • **STEP 9**: Facility design and ToR development (4 months)

	• **STEP 10**: Planning and approvals processes (6 months) • **STEP 11**: Upfront operational training and management training support (2 months) • **STEP 12**: Capital raising for the debt facility (6 months) • **STEP 13**: Loan origination (3-15 months)
Years 4 Onwards: Continuing Support Activities & Scaling	• **STEP 14**: Ongoing operational, management support and MEL (until end of borrowing) • **STEP 15:** Post-pilot recapitalization and scaling (tentatively beginning in 2030)

Table 11. Asset-Level Modeling Assumptions

Cold Storage	
Installation Cost	$1527.78/m^3
Cooling Capacity	0.17 metric tons/m^3
Total Capacity	3 metric tons
Annual O&M Cost	$93/metric ton
Energy Consumption	4 kWh/metric ton/day
Electricity Tariff	$0.13/kWh
Utilization Rate	55%
Cold-Storage Use Fee	KES 1.67/kg/day
Food Loss Reduction Factor	20%

Solar PV	
Installation Cost	$1070/kW
O&M Cost	$53.50/kW
Capacity Factor	15%
Electricity Tariff	$0.13/kWh

Figure 5. Public-Private Partnership Structure ("Upgrades SPV")

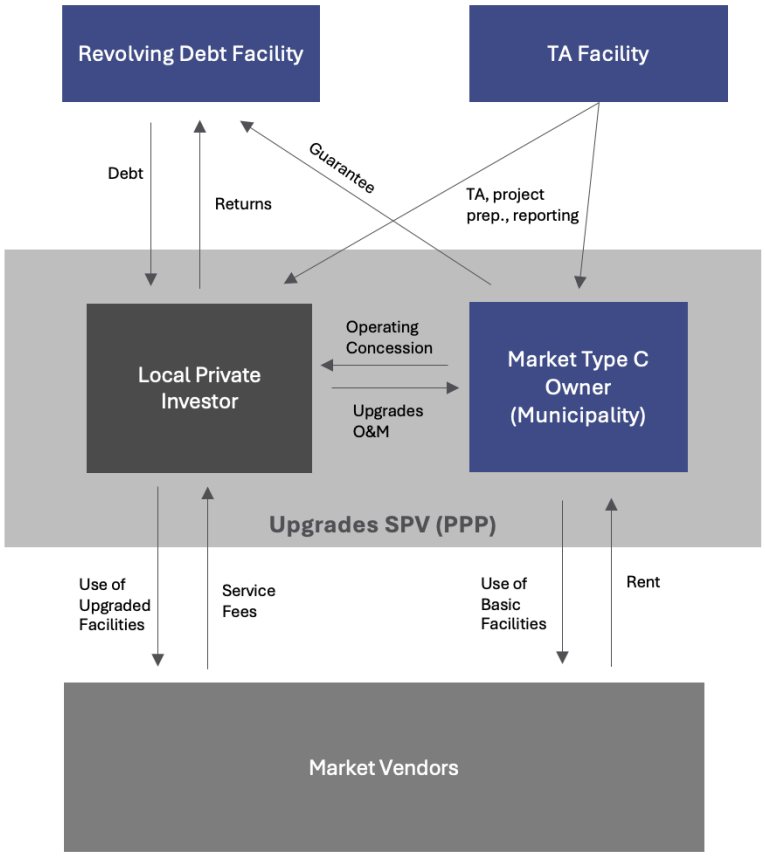

Figure 6. ReMark Pilot Phase Long-term Liabilities Amortization Schedule

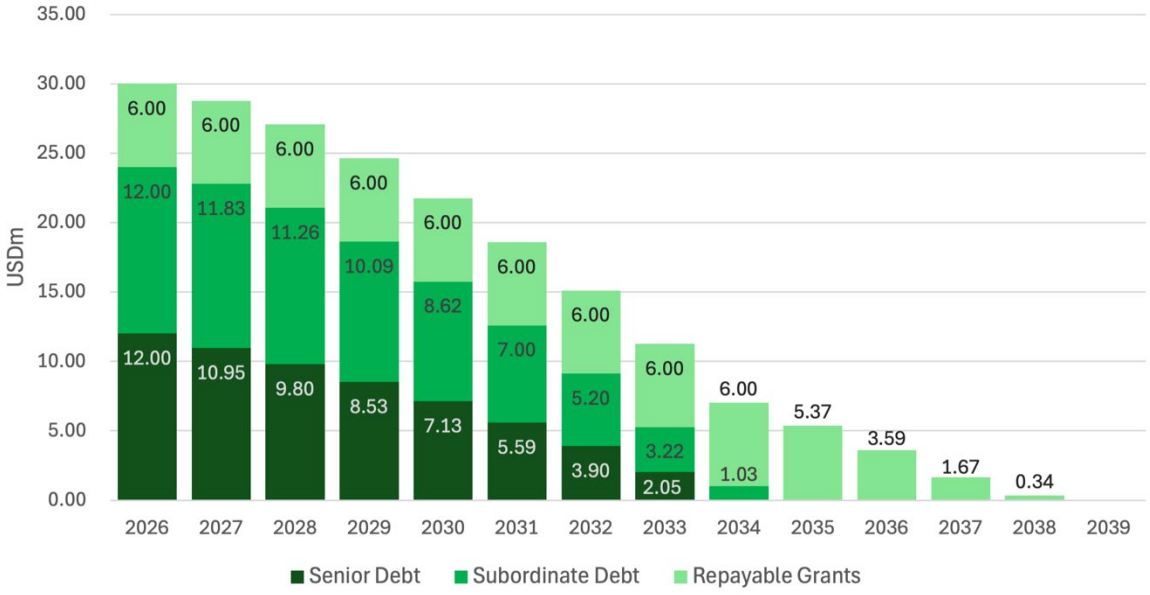

Table 12. Key Impact Indicators

Type	Category	Indicators

Market	**Output**	**Climate indicators:**
		• Number of retrofits/upgrades undertaken across all markets
		  o # of cold-storage retrofits
		  o # solar PV capacity installed (MW)
		  o # solar dryer installation (MW)
		  o # of waste management facilities deployed
		  o # of roof/ shading retrofits in markets
		  o # of new bays and trading structures
		  o # of drainage facilities installed
		Socioeconomic indicators:
		• # of new and upgraded utility services
		• % of women food traders accessing the upgraded facilities

	Outcome	**Climate indicators:**
		• % Reduction in food spoilage (tons)
		  o % of food spoilage avoided through cold-storage upgrades
		  o % of food wastage avoided through improved waste management facilities
		• Reduction in CO_2 emissions (tonnes)
		  o Emissions abated through Solar PV
		  o Emissions abated from solar driers
		  o Methane emissions abated through avoided food wastage
		• Improvement in flood management
		  o Maximum flooding volume (cfs)
		  o Duration of flooding (hours)
		  o Depth of flooding (inches)
		  o % in increase in footfall of consumers
		Socioeconomic Indicators:
		• % of food traders with increased utilization of facilities:
		  o % of women food traders
		  o % of male food traders
		• $ improvement in annual livelihoods of food traders:
		  o $ increase in revenue collection
		Increased health amongst traders leading to greater number of trading days per year

Portfolio	**Output**	**Climate indicators:**
		• Number of markets electrified through solar energy
		  o Total solar PV capacity installed (MW)
		  o Total solar dryer installations (MW)
		• Number of markets with improved waste management
		• Number of markets with improved retrofits and upgrades:
		  o Increased access to basic utility services
		  o Upgrades in roofing structures
		  o New bays and trading structures

		Socioeconomic indicators: • Number of markets supported with financial access for retrofits/upgrades

	Outcome	**Climate indicators:**
		• Number of food markets with improved resilience
		• Increased number of trading days due to resilience to extreme weather patterns (heat and rain)
		Socioeconomic indicators:
		• Improvement in annual livelihoods:
		  o $ increase in revenue collection
		• Increased utilization of markets as sites of social and cultural activity
		  o # of events held
		• Increased access to healthy and nutritious food amongst citizens
		  o # of people whose annual energy requirements (kcal) could have been met by the lost crop
		• Increased footfall in markets