

Innovating and Investing at the Gender-Climate Nexus in Africa

Insights from climate tech startups and gender-lens investors

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Foreword



Climate change is reshaping economies, industries, and lives, with impacts felt most acutely by women, particularly across Africa. Despite being underrepresented in decision-making and investments, women are powerful drivers of adaptation, resilience, and innovation.

This research brief illuminates the gender–climate nexus, demonstrating how African startups and investors are proving that gender-smart climate solutions unlock wider markets, drive sustainable profits, and build community resilience. The insights reveal a truth UNIDO has long recognized: inclusive innovation is stronger innovation. When women lead across value chains, the benefits multiply: enhancing food security, energy access, healthcare, waste management, and industrial resilience.

For UNIDO, advancing climate technology and innovation is inseparable from advancing equality. As the custodian of SDG 9 and partner to the Paris Agreement, we see in this work as a compelling call to action. Building climate-resilient industries requires harnessing the talents and leadership of women throughout the innovation and investment processes.

This study, made possible through the collaboration between BFA Global, Catalyst Fund, FSD Africa, UNIDO, and the Global Environment Facility, offers valuable evidence and practical recommendations.

UNIDO invites policymakers, investors, entrepreneurs, and ecosystem builders to act on these findings. Together, we can transform climate challenges into opportunities, ensuring that women's leadership is central to the green and resilient industries of the future.



Eleonora Gatti

Head, Climate
Technology Innovation
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Foreword



Climate change profoundly alters economies and livelihoods across Africa, with its impacts disproportionately borne by women. At FSD Africa, our core purpose is to make finance work for Africa's future, addressing systemic risks such as climate change and gender disparities. We recognise that gender inequity is not only a social challenge but also a structural gap in Africa's financial markets. Addressing this gap is central to strengthening financial systems so they work for all, not just a few. This imperative is underscored by the fact that gender equality and environmental goals are, indeed, mutually reinforcing.

This research brief, "Innovating and Investing at the Gender-Climate Nexus in Africa" validates our strategic conviction: That investing in women's empowerment in the context of climate finance is a strategic imperative, not merely an impact objective. The study demonstrates how African start-ups are deploying gender-smart climate solutions to unlock wider markets, drive sustainable profits and build community resilience. The findings affirm women's central role in community support and environmental protection: They show that women are not just beneficiaries but powerful agents who drive stronger adoption, engagement and loyalty across value chains, delivering multiplier effects on wellbeing and resilience not just for individuals, but for communities.

FSD Africa's strategy directly responds to the persistent gaps identified in financing, data, and intentional design. We channel catalytic capital into interventions targeting small and growing businesses in the green economy through our Early-Stage Finance work, with a specific attention paid to gender empowerment and climate adaptation. As a change agent, we mobilise and catalyse more and better quality capital, recognising that overcoming the significant data deficit on the gender-environment nexus is essential to designing solutions that truly put women at the centre.

Made possible through the collaboration of FSD Africa, BFA Global, Catalyst Fund, UNIDO, and the Global Environmental Facility, this study offers invaluable evidence and practical recommendations. We urge policy makers, investors, and entrepreneurs to act decisively on these findings, placing women's leadership at the centre of a just and resilient transition.



Juliet Munro

Director Early-Stage
Finance, FSD Africa



Introduction

Women are disproportionately affected by climate change, facing heightened risks to their health, livelihoods, and security, yet remain largely excluded from designing, funding, and delivering climate solutions. In Africa, gender-intentional innovations in sectors such as agriculture, health, waste management, and energy are proving that **solutions tailored to women's needs can both address their specific climate vulnerabilities and deliver more inclusive, resilient outcomes** for entire communities.

This study explores the opportunity at the **gender-climate nexus through the lens of African climate startups and investors**. Drawing on in-depth interviews with entrepreneurs and investors, it highlights how gender-inclusive solutions are enhancing women's resilience, economic participation, and wellbeing, while pinpointing persistent gaps in financing, data, and intentional design that must be addressed to unlock the full potential of gender-smart* climate innovation.

This research was made possible through a partnership between **BFA Global, Catalyst Fund, FSD Africa, United Nations Industrial Development Organization (UNIDO) and the Global Environmental Facility (GEF)**.

*Gender-smart climate innovation means embedding gender considerations into climate investments to drive stronger returns and equality outcomes.

01 The Challenge and Opportunity

The Challenge: Women are more exposed yet less equipped to deal with climate shocks

In Sub-Saharan Africa, **89% of women work** in informal jobs, many in climate-vulnerable sectors such as smallholder farming, leaving them trapped in risk-heavy livelihoods (UN Women). Within these sectors, women face **structural barriers** that deepen their vulnerability.

Limited asset ownership and financial exclusion: Only 13% of women report sole land ownership compared to 36% of men, and even under joint ownership they lag behind at 38% versus 51% of men (World Bank). Without secure land rights, women struggle to access credit, finance, and household decision-making power. Despite comprising 43% of the agricultural labor force, they receive just 7% of agricultural investment (Convergence, 2023).

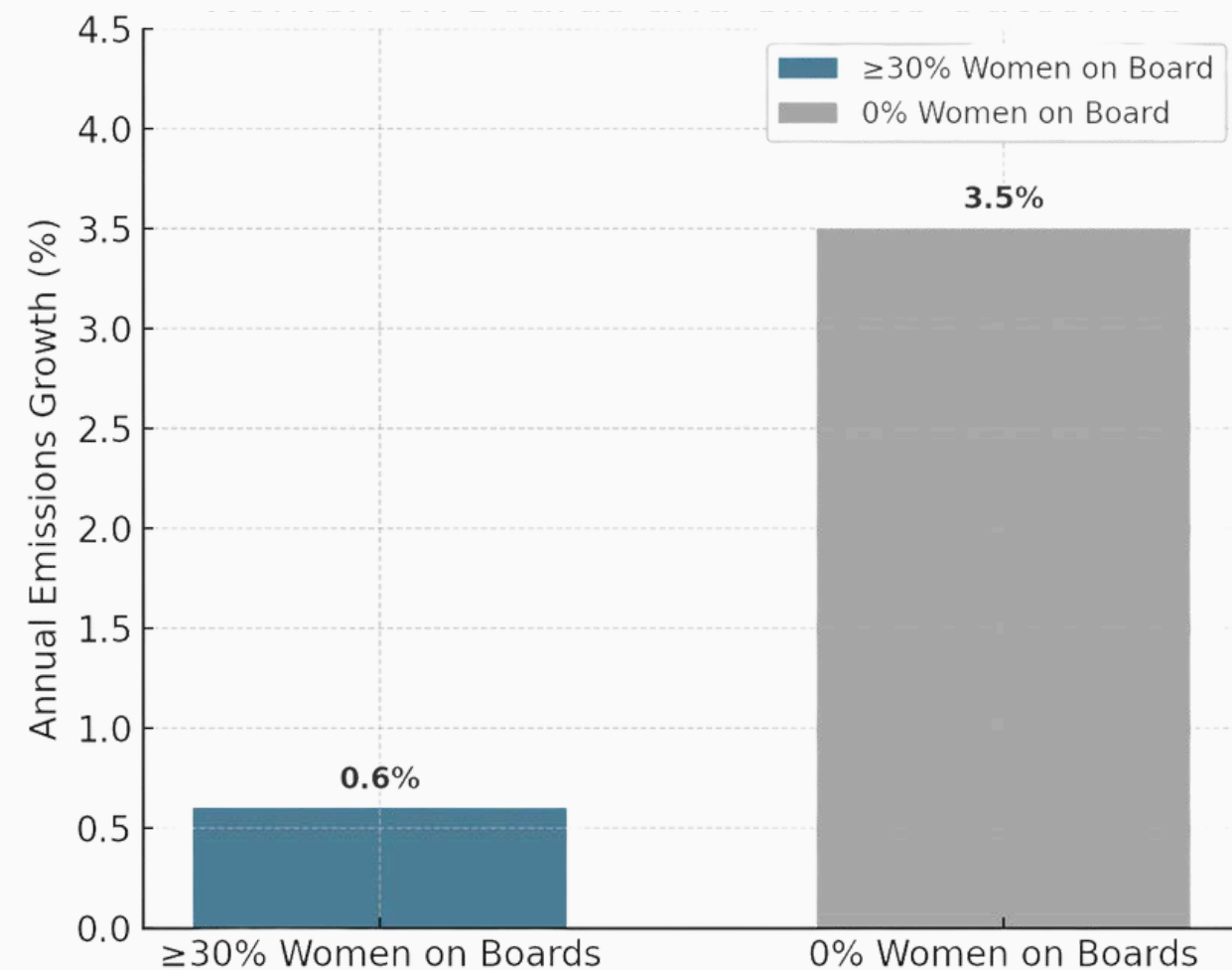
Time poverty and unequal social burdens: Unpaid care responsibilities absorb disproportionate hours, with women farmers in Senegal spending up to 12 hours a day on care work - far more than men - leaving little time for paid activities that could build resilience (UN Women).

Heightened climate vulnerability: Women and girls are up to 14 times more likely to be harmed during climate-induced crises such as floods and droughts (World Bank). The UN estimates they make up 80% of those displaced by climate change, with restrictive gender norms further exposing them to injury, displacement, economic insecurity, and gender-based violence (UNICEF).

Underrepresentation in decision-making: Women's voices remain limited in climate policy and finance, despite evidence that their participation leads to stronger climate commitments. Barriers such as low political representation (26% of parliamentary seats globally), discriminatory norms, and restricted financial access continue to curb their influence (UN Women, 2025, OECD 2021).

The Opportunity: Women as Climate Solution Agents

Woman on Boards and Climate Outcomes



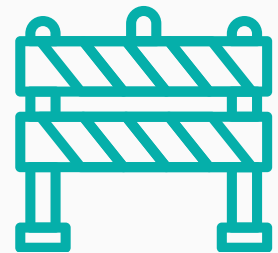
Source: BloombergNEF via Axios (2020)

Source: BloombergNEF via Axios (2020)

Gender barriers weaken climate resilience, but inclusive business models can reverse this trend

- Gender-inclusive business models can **unlock wider product adoption**, strengthen value chains, and build higher community-level climate resilience ([UNDP, 2022](#)).
- **Women already spearhead change** in food systems, waste recycling, healthcare delivery, and energy transitions, yet remain under-recognized in climate policy ([IPCC, 2022](#)).
- Embedding women across value chains creates **stronger local ecosystems and resilience**, amplifying both social and environmental returns ([DCED, 2019](#)).
- **Female customers often outperform on engagement and repayment**, with evidence showing women have higher loan repayment rates than men, strengthening portfolio health ([CGAP, 2021](#)).
- Companies with 30 %+ women on boards **experience lower emissions growth** and stronger climate governance ([Convergence, 2023](#)).

Key questions this study will explore



What **barriers and opportunities** do startups face in integrating **gender intentionality** into their climate innovation, and what practices can be adapted to unlock greater gender-climate impact?



How are African climate startups **delivering resilience benefits for women** and what business advantages emerge when gender inclusion is embedded by design?



How can **investors capture both financial returns and resilience dividends** by backing gender-smart climate startups?

02 The Study

Methodology and Interviewees

Objectives & Methodology

→ OBJECTIVE

The **objective** of this study is to:

1. Explore how climate-focused startups are delivering positive outcomes for women;
2. Understand the barriers they face in being gender intentional;
3. Document investors' strategies in deploying gender-lens capital. Finally the study provides practical recommendations for startups, investors, and ecosystem actors.

→ METHODOLOGY

We conducted a **qualitative research** study capturing insights from climate tech startups in Africa with strong gender outcomes, as well as investors operating at the gender-climate nexus.

- With **startups**, we explored how women are served by startups (intentionally or not), whether they are included in product/service design, the impact on their resilience, income, and wellbeing, and whether they collect data on gender and climate impact, or plan to in the future.
- With **investors**, we explored their approach to gender inclusion in their investment thesis, their pipeline and due diligence practices, and the challenges and lessons learned in funding gender-inclusive climate tech businesses.

→ INTERVIEWS

Sample: 7

Startups:

- Farm to Feed, Agro Supply, Mazao Hub, Medikea, Bekia, Keep it Cool, Enaki

Sectors:

- Agriculture, Health, Waste & circular economy, Energy & cooling, Mobility

Sample: 4

Investors:

- Kawi Safi, Catalyst Fund, MCESOCAP, Altree Capital

Sectors:

- Climate-focused VC Firms, Gender-lens Investors, Catalytic funders

7 Startups Turning Women’s Empowerment into Climate Impact

Sector	Name	Country	Description	Gender-Climate Nexus	Gender Impact
Agriculture		Kenya	Farm to Feed reduces post-harvest losses by buying cosmetically imperfect produce from smallholder farmers and linking them to buyers via a digital platform.	• Off-takes entire harvests to cut food waste and increase returns for women in climate-affected horticultural zones. • Digital platform reduces carbon emissions and saves time by limiting transport needs. • Promotes syntropic farming practices, widely adopted by women.	43% women users
Agriculture		Tanzania	Mazao Hub offers AI-powered agronomy, soil analysis, market linkages, and financing tools to boost productivity for smallholder farmers in Tanzania.	• AI-driven agronomy and sensor-based monitoring enable adaptation to changing climatic conditions, strengthening women’s yields, incomes, and control over agricultural resources. • Expands women’s access to climate-smart practices, financing, and farming equipment.	40% women users
Agriculture		Uganda	Agro Supply delivers climate-smart farming solutions, market access, and layaway financing to smallholder farmers in Uganda.	• Enhances women’s income and food security through tailored crop choices, layaway savings, and inclusive recruitment of female agents. • Trains farmers in climate-relevant agronomy, including soil and seed suitability for specific zones. • Offers crop insurance to strengthen resilience against climate-related losses.	40.5% women users

7 Startups Turning Women’s Empowerment into Climate Impact

Sector	Name	Country	Description	Gender–Climate Nexus	Gender Impact
Cold Chain		Kenya	Keep It Cool provides off-grid cold storage, aggregation, and market access for fish and poultry farmers using solar-powered hubs and chilled logistics.	• Cuts post-harvest losses in fish and poultry value chains dominated by women. • Uses off-grid solar hubs to support low-income women traders in informal settlements. • Chilled truck deliveries save time and ensure safe, dignified market access for female retailers.	49% women users
Mobility		Morocco	Enakl is a tech-mobility service in Morocco offering pooled, affordable, and safe transport in urban areas.	• Provides safe, reliable pooled transport for women, reducing reliance on high-emission alternatives. • Lowers carbon footprint through shared mobility solutions.	75% women users

7 Startups Turning Women’s Empowerment into Climate Impact

Sector	Name	Country	Description	Gender–Climate Nexus	Gender Impact
Healthcare	 Medikea	Tanzania	Medikea runs a telemedicine platform, providing affordable digital consultations, prescriptions, and medicine delivery.	• Addresses women's specific health needs while cutting the carbon footprint of healthcare delivery and saving women’s time. • Treats over 2,000 patients annually for climate-related conditions.	70% women users
Circular economy	 Bekia أخلص من حاجاتك القديمة	Egypt	Bekia operates a tech-enabled waste collection platform in Egypt, offering households incentives to sort and recycle non-biodegradable waste.	• Engages 97% women clients in waste sorting and recycling, generating household income. • Diverts over 100 tonnes of waste monthly from landfills, conserving resources. • Strengthens women’s role in the circular economy while promoting environmental sustainability.	97% women users

4 Investors at the Gender–Climate Nexus: Strategies and Impact

Sector	Name	Description	Gender–Climate Impact
Energy		Kawi Safi Ventures Invests mainly in renewable energy and productive use of energy businesses	• Investments target both social and climate impact, • Recognizes agriculture and energy as sectors where women are already embedded in sales and distribution, making them natural climate solution agents.
Cross-sectoral		Catalyst Fund is a VC fund and venture builder investing in solutions that build a climate resilient future, in sectors such as agriculture, insurance, energy, waste management, water and health.	• Focuses on climate adaptation and resilience solutions in sectors heavily impacting women (agriculture, energy, water, health). • Venture builder in climate adaptation and resilient solutions • Adopts an intentional gender lens targeting 40% female founders, and at least 80% African founders

4 Investors at the Gender–Climate Nexus: Strategies and Impact

Sector	Name	Description	Gender–Climate Impact
Financial inclusion		MCE Social Capital is a US-based Investor, with global presence and a strong focus on financial inclusion in agriculture, through debt financing	- Investment approach has evolved from livelihoods, gender equality and environment protection to a more intersectional lens on local economies, climate resilience and women's empowerment - Has a mandate of 70% women reached through the FSPs (financial service providers in their portfolio to increase their access to climate-resilient savings and insurance.
Multiple climate sectors (circular economy, energy, health)		Atree Capital invests in climate-reliant sectors such as renewable energy, cold storage solutions, circular economy and health	- Adopts an intentional gender approach aiming for 50% female entrepreneurs and applying the 2X criteria. - Focus on climate sectors including circular economy, cold storage solutions, renewable energy and health. - Invests via both debt and equity, targeting entrepreneurs with a clear path towards profitability

03 Insights from Startups

What startup practices reveal about
gender-climate impact

Insight 01

Climate solutions are helping women adapt to climate shocks by increasing incomes, food security and access to finance



[Income] It can be significant for household decision making... children's education and nutritional outcomes.
– CEO, Farm to Feed

KEY FINDINGS

- Improved and innovative **financial access** enables women to plan for planting seasons, sustain food production, and buffer against unpredictable climate shocks.
- Establishing secondary markets for surplus/ blemished produce reduces post-harvest loss and **protects women from income volatility**.
- Access to cold storage extends the shelf life of perishable goods, minimizes spoilage, and **cushions women from market price fluctuations**, allowing them to retain or sell more of their harvest.
- Extension services offered directly and affordably to farmers **increases yields and therefore women's incomes**.
- **Diversifying income streams**, through activities like value addition, waste-to-cash models, and small-scale ventures, enhances women's earnings and strengthens resilience to climate shocks.

EXAMPLES

- **Farm to Feed** off-takes the entire produce, significantly reducing post-harvest losses and maximising incomes.
- **Bekia** enables women to trade waste for cash, addressing environmental conservation and income generation.
- **Keep It Cool** also creates a secondary market through its Markiti app for sale of by-products usually wasted enabling women who cannot afford fish to earn a living.
- **Agro Supply** provides a mobile layaway system and scratch card solutions that help farmers, especially women, save in installments and secure agricultural inputs for the next season.
- **Keep It Cool** and **Farm to Feed** support users in poultry farming and apiculture, helping them diversify income streams and build resilience to climate shocks.

Note: Findings are derived from direct qualitative interviews with startup founders

Insight 02

Startups often view reaching women as impact rather than business strategy, yet evidence shows strong commercial value



...the majority of the team here are women also, because women talking to women makes a difference. – **CEO, Bekia**

I had to come and say, we need to do something for these women...But before we were focusing much on business. When it comes to impact, we were still seeing, how can we create something specific for them. – **Female employee, Mazao Hub**

KEY FINDINGS

- Some startups **naturally reach women** due to the sectors they operate in where women are the primary users, even without intentional design initially.
- These startups then adapt products to serve women for market growth, but **fail to connect gender impact with long-term business growth and sustainability**.
- Even women leaders within startups often champion reaching more women, but still **frame it mainly as social impact** rather than commercial opportunity.
- Lack of gender-disaggregated data on key metrics (LTV, CAC, retention) limits the ability to link women's participation to commercial outcomes; despite women being the majority of users across all seven startups, **few systematically track gender data**, weakening optimization, impact storytelling, and attractiveness to gender-smart investors.

EXAMPLES

- **Mazao Hub** designs campaigns to intentionally engage women, acknowledging their community influence, but still frames this work primarily as “impact first” rather than commercial strategy.
- **Agro Supply** values women's saving discipline, which reduces seasonal drop-offs, but overlooks its link to supply reliability and demand predictability; lacks metrics on women's long-term commercial viability.
- **Bekia's** 97% female user base was acquired without marketing, demonstrating a near-zero CAC and highlighting women's strong commercial impact.

Note: Findings are derived from direct qualitative interviews with startup founders

Insight 03

Some startups recognize women agents and users as key drivers of adoption, engagement, and loyalty



...targeting women specifically, has made a positive impact on Keep it Cool's incomes and revenues.

- **CEO, Keep it Cool**

Three out of four of our users are women. It just makes sense to think of them when we design.

- **CEO, Enakl**

KEY FINDINGS

- Some startups are integrating women across the value chain, seeing them as **critical to business operations**, not just beneficiaries.
- Women's **social capital** is seen as a key operational asset, especially in roles requiring trust and sustained engagement.
- Their reliability leads to **higher user satisfaction, loyalty, and repeat use**. They often **outperform** male counterparts in consistency, communication, and care for the customer.
- Women are important actors at the intersection of climate and entrepreneurship, **keen on adapting** sustainable innovations.
- Women typically direct income toward household needs, their inclusion delivers **multiplier effects on wellbeing and resilience**.

EXAMPLES

- **Enakl** with 70% women users, it tailors services to their needs by vetting drivers, requiring pre-bookings for safety, and offering redress mechanisms, as women are central to its market share.
- **Medikea** gains stronger business returns by targeting women as primary decision-makers in household healthcare.
- **Keep it Cool** empowers women as fish and poultry suppliers and as retailers of discarded off-cuts, creating a new revenue stream that provides low-income women with affordable products while enabling the company to monetize what was once waste.

Note: Findings are derived from direct qualitative interviews with startup founders

Insight 04

Addressing time burdens and enabling safe and convenient market access drives business growth for women and enhances climate impact



Remote consultations and medicine delivery free women from hours in clinics.

– CEO, Medikea

KEY FINDINGS

- By reducing the time women spend on physically demanding or repetitive tasks, startups **free up capacity** for them to adapt, diversify incomes, and adopt climate-smart practices.
- Bringing **market access closer to women**, remove mobility barriers for women, enabling more time for care activities, reduces financial stress, and contributes to less carbon emissions.
- Beyond easing time burdens, closer access to markets and monitored commutes enhance **women's safety** and agency, driving greater uptake and sustained use of services.

EXAMPLES

- Digital platforms (e.g., **Farm to Feed's** app, **Mazao Hub's** ERP tools) let women sell or manage produce without long, frequent trips to markets.
- **Mazao Hub's** provision of tractors and combine harvesters reduced the physical labor and time required of women.
- **Keep It Cool's** decentralized solar cold hubs and chilled delivery trucks cut the need for women to transport goods over long distances.
- **Medikea's** remote consultations, prescriptions, and medicine delivery reduced travel and wait times for women, freeing hours otherwise spent in clinics.
- **Enaki's** safe, pooled rides reduced commuting times for women in urban areas.

Note: Findings are derived from direct qualitative interviews with startup founders

Startups can deepen impact on women across 4 key areas



Product Design

- **Engage women in testing and feedback** to shape design; a human-centred approach ensures solutions truly reflect and prioritize their needs.
- Design offerings that **reduce women's time burdens, affordability barriers, increase safety and enhance agency**.
- Tailor **financial tools** to women's cashflow patterns (eg. Layaway savings, lower upfront costs etc.)
- Invest in **digital and financial skills** training to empower users, maximize product adoption, and strengthen impact, leveraging free tools like GSMA's MISTT.



Data

- Map the customer journey and apply **gender-disaggregated data** at each stage to spot gaps and opportunities for engaging women as users and agents.
- Use **standardized dashboards or scorecards** with gender metrics to track, compare, and improve outcomes.



Internal Policies

- Invest in inclusive hiring and leadership to **increase women's representation in decision-making roles**.
- Engage women across the supply chain and promote female leadership within the communities you serve.



Marketing and Distribution

- **Leverage women in field force** to build trust and drive more sustained outcomes.
- **Document stories and outcomes** to communicate their gender impact to partners and funders.

Spotlight: Business Case for reaching women

Reconciling Impact vs Profit

Most startups treat reaching women as impact rather than business, and even those engaging majority women often miss linking its commercial viability to intentional gender strategy. We observe 2 pathways among the startups:

- **“Converted by evidence”**: Start with impact logic → pilot (usually donor-funded) → discover commercial levers to reach women → formalize into growth strategy.
- **“Women-first by design”**: Women were largest first adopters and remain main users → high initial women share (70–95%) → brand, messaging, and operations optimized around women → rapid WOM growth.

Spotlight: Business Case for reaching women

Business Value Drivers

Influence: Women drive adoption and community uptake:

- “If Mazao Hub is starting a campaign in a particular region. The people creating the strategy make sure they attract women, because we know they're the ones who can influence” – Mazao Hub

Supply reliability: Women's strong savings habits, curiosity and participation ensure predictable revenues and reduced losses:

- AgroSupply's layaway shifts seasonal cashflow into the business before planting, improving working-capital cycles and demand predictability. Women are the most consistent target-hitters on savings, making revenues more forecastable. “Women are very good in saving most of the people that hit 100% of their saving goal ...are women”.
- Bekia on waste collected “97%, or 98% of them are women. This is a big, a big indicator that they do great”.
- Keep it Cool “selling of offcuts to women to value add has reduced our post harvest loss and also increased our revenues”.

Product stickiness & lifetime value: When solutions fit women's realities, usage persists and retention rises:

- “[retention] it's very high. I think we are talking about 75%.” – Bekia
- “retention, I think, has been one of the keys of the number of consultations” – Medikea, with 70% women uptake
- Lower CAC - “it's very convenient and aligned with what women want...most 70% of our users who are women, and we have never done any marketing on that.” – Enaki
- “[women] telling other people to basically come to our clinic for this kind of services” – Medikea

04 Insights from the Investors

What's working, and what's missing, in gender-smart climate investing

Why invest at the Gender-Climate nexus?

IFC projects that climate-smart investments could unlock US\$23 trillion in opportunities, create 213 million jobs, and abate 4 billion tons of CO₂ in developing economies by 2030. In addition, gender-lens funds have mobilized US\$33.6 billion under the G7's 2X Challenge. So the market is catching on to the opportunity. Based on our desk-research and direct experience, we identified 4 pillars of the business case for investors:

Market Expansion

01

Women dominate climate-sensitive sectors (agriculture, health, waste, energy) yet remain underserved (Reuters, 2025). Startups serving them tap into a vast, loyal customer base.

e.g. When women gain equal access to resources, especially in agriculture, yields can increase by 20–30%

Performance Edge

02

Inclusive models see higher repayment rates, and customer trust. Women agents often outperform in distribution and service roles.

e.g. EIB research shows that women-led firms deliver stronger ESG outcomes

Resilience Dividend

03

Income stability for women strengthens entire households' ability to withstand climate shocks — multiplying the impact of every dollar invested.

Financial Returns

04

Gender-smart startups show stronger adoption curves and stickier business models, making them more scalable and investable.

To explore how investors can operationalize this and make the most of the opportunity, we interviewed leading funds at the forefront of climate and gender innovation. The insights and recommendations are presented for each step of a fund's investment process.



Sourcing

Initial Due Diligence

Full Due Diligence

Investment
CommitteePortfolio
Management

Insight #1

Identifying and attracting startups that hold the potential to deliver both gender and climate impact requires intentional sourcing across sectors.

KEY FINDINGS

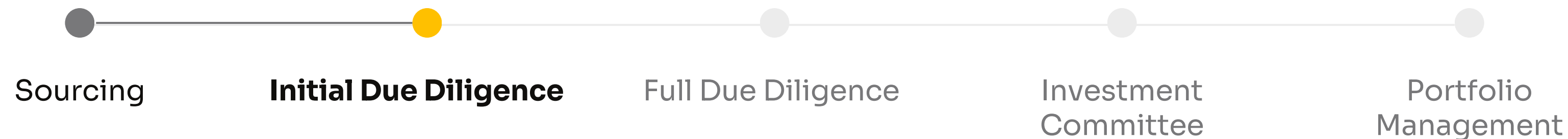
- A key challenge for investors is finding investment-ready, women-owned climate enterprises, especially in transportation, renewable energy, and the circular economy.
 - Women are concentrated in lower-value roles across sectors like agriculture but remain underrepresented as venture leaders, an untapped opportunity where their leadership could drive deeper impact and returns.
- Sector choice often determines women's reach more than founder gender, male-led companies in women-dominated sectors (e.g., agriculture, health, circular economy) still achieve significant scale with female end-users.
- However, women-led organisations in these sectors tend to deliver deeper impact, as gender intentionality is more often built into their models. ([WEDO 2022](#))

CURRENT PRACTICES BY INVESTORS

- **Catalyst Fund:** Aligns with 2X Criteria; applies a 4-part gender lens, women as leaders, employees, entrepreneurs, and consumers.
- **Kawi Safi:** Partners with educational institutions to skill future entrepreneurs, creating a pipeline for climate ventures.
- **Altree Capital:** Applies gender screening aligned to 2X Criteria; excludes companies that fail to meet gender thresholds.

RECOMMENDATIONS FOR SOURCING

- **Leverage third-party networks and databases** to identify pipeline companies with high potential for positive outcomes for women.
- Evaluate **sector potential to scale reach to women**, even if male-led, while prioritising women-led organisations for deeper, more intentional impact.
- Support all sourced companies in developing a **gender and climate action plan** to embed intentionality early.



Insight #2

Evaluating investment opportunities through robust, bias-free processes and adopting gender-climate metrics shapes stronger portfolio impact from the outset.

KEY FINDINGS

- Female entrepreneurs often **face bias in financing criteria**; reframing to growth-oriented rather than risk-oriented questions increases inclusion.
- **Male-led companies in women-dominated sectors can still scale impact** for women if evaluated intentionally.
- **Tracking gender data early** in the due diligence process surfaces higher-performing gender outcomes post-investment. However, execution is uneven, especially in analog sectors.
- The **burden of data collection** often falls on startups with limited capacity, slowing progress.
- There is a **lack of integrated tools for measuring gender** and climate outcomes together.

CURRENT PRACTICES BY INVESTORS

- **Catalyst Fund** and **Altree Capital** use of 2X Criteria and Gender frameworks to evaluate gender outcomes in pipeline companies.
- **Kawi Safi** prioritizes sectors where women are already key players (agriculture, health, energy, circular economy).

RECOMMENDATIONS FOR SOURCING

- Apply **standardised assessment tools** (e.g., 2X Toolkit, Women's Empowerment Principles, Gender frameworks) for all companies, to remove bias and improve comparability.
- Develop a **gender-climate dashboard or scorecard**, a tool that uses key indicators, such as women's participation, income gains, access to climate-resilient resources, and leadership roles, to track and visualize outcomes and benchmark portfolio performance.
- Evaluate male-led companies on their potential to **scale services for women, particularly in sectors with high female participation**.
- Reduce the reporting burden on startups by offering **lightweight, investor-supported data collection systems** during due diligence.



Insight #3

Integrating gender and climate considerations into investment memos and approval processes to strengthen opportunity assessment.

KEY FINDINGS

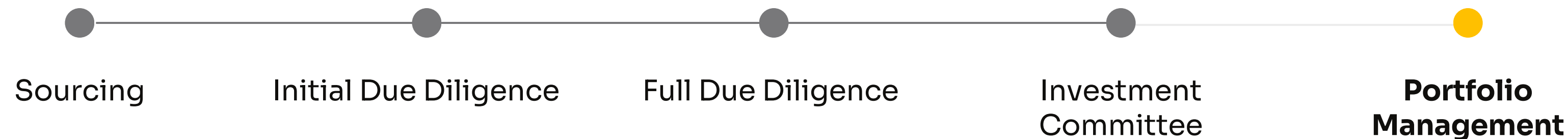
- Investment decisions often focus heavily on financial returns, with gender and climate impact often addressed separately as adjacent benefits.
- Incorporating gender into **opportunity, risk, and climate impact questions** ensures these factors are treated as core to investment value, not add-ons. For instance asking:
 - On climate: How do climate shocks differently affect women and men in this sector?
 - On risk: What gender-specific risks could undermine resilience or performance?
- Assessing climate investments through both a **gender lens** (impact on women) and a **climate lens** (emissions reduction, resilience) uncovers complementary benefits, especially in portfolios reaching more women.
- Portfolios spanning **multiple growth stages and maintaining longer-term engagement tend to benefit women entrepreneurs**, who often face longer learning curves due to limited resources, networks, and capital, leading to more business model pivots.

CURRENT PRACTICES BY INVESTORS

- **Catalyst Fund** uses standardized questions across the portfolio to limit bias in decision making
- **MCESOCAP** invests exclusively in fintechs that reach at least 70% women, recognizing the proven commercial and social impact over time.

RECOMMENDATIONS FOR SOURCING

- Integrate gender–climate impact sections in **all investment memos**, covering:
 - Opportunities for impact
 - Risks related to exclusion or inequality
 - Projected outcomes for women and girls, and climate benefits
- Apply **standardised portfolio metrics** during IC reviews to ensure alignment with set targets for both climate and gender.
- Evaluate proposed investments based on **dual impact potential**: how they advance climate goals while delivering measurable benefits for women.



Insight #4

Providing active and flexible support to startups to strengthen gender-inclusive and climate-smart outcomes across the portfolio.

KEY FINDINGS

- To foster more gender-inclusive solutions and stronger founder commitment, **hands-on, flexible support** early in the venture journey is crucial, as seen with Catalyst Fund and Kawi Safi.
- Many **startups lack the capacity, tools, and funding** to collect and use gender-disaggregated and gender-climate data effectively so they need extra support for this.
- **Peer learning and sharing of best practices** across the portfolio accelerates the adoption of inclusive and climate-smart approaches.

CURRENT PRACTICES BY INVESTORS

- **Kawi Safi** provides **gender-focused support** through TA and awareness campaigns to boost women's uptake of climate solutions, support board placements for women, and competitions to boost women's uptake of climate solutions and entrepreneurship.
- **MCESOCAP leverages lean studies to evaluate client outcomes**, including women's seasonal income flows, savings, and resilience

RECOMMENDATIONS FOR SOURCING

- **Co-create gender and climate action plans** with portfolio companies, embedding these into performance objectives.
- **Integrate gender-climate metrics** into regular performance monitoring and reporting.
- Build startup capacity to **collect, analyse, and use data** to refine products, distribution, and marketing.
- Provide flexible capital alongside **technical assistance** to implement inclusive practices.
- Offer peer learning opportunities and **portfolio-wide gender capacity-building** sessions.
- Create practical guides on how to use **gender-disaggregated data (SADD) for product** and distribution design.

Final Summary of Recommendations

Recommendations for startups

- **Design with women to cut climate “time taxes”** – Co-create with women to reduce heavy labor, unsafe commutes, and long trips through mechanization, pooled logistics, local hubs, and telehealth. Track hours saved and emissions reduced.
- **Tailor finance to women’s realities** – Use layaway, staged payments, and micro-insurance tied to seasonal cashflows to smooth revenues, reduce drop-offs, and protect households from climate shocks.
- **Diversify income for resilience** – Think of value chains and products where women dominate, like agriculture or waste-to-cash that stabilize women’s incomes and cut waste or emissions.
- **Empower women-led distribution** – Recruit women agents to drive adoption, lower CAC, and spread climate-smart practices; measure their impact on growth and retention.
- **Make gender a growth lever** – Track the full customer journey by gender (CAC, LTV, retention, NPS, hours saved) to show how women’s participation boosts reliability and revenues.
- **Turn gender data into action** – Assign a gender data lead; run regular reviews to translate insights into product, outreach, and climate impact improvements.
- **Put women in leadership** – Set targets for women in product, growth, and ops roles, and elevate women leaders in communities and supply chains.

Recommendations for donors & investors

- **Source where women already are** - Prioritize women-dense sectors (ag, health, circular economy, distributed energy), evaluate male-led firms on their capacity to scale women’s reach; while simultaneously growing pipeline of women-led ventures.
- **Standardize investment process to remove bias** - Use 2X/WEPS, or tailored gender frameworks screens from first contact; using a common checklist for gender & climate across all deals.
- **Approve on dual impact logic** - Embed gender-climate sections in memos: market opportunity, risk, and projected outcomes for women alongside emissions/resilience benefits.
- **Bundle capital + TA + data enablement** - Pair flexible capital with TA on SADD setup, dashboards, and using data for product and distribution decisions, reducing reporting friction offering support like pooled analysts.
- **De-risk discovery with catalytic instruments** - Use grants and recoverable advances to test women-focused features and data systems; make “unit-economics by gender” an explicit learning objective.

05 Startups Case Studies

Case study: Keep It Cool (Kenya)

An agritech startup that provides solar-powered cold storage, aggregation, and logistics services for fish and poultry farmers, with 49% of its suppliers being women, helping them reduce post-harvest losses, access safer distribution points, and increase incomes.



Gender-specific Challenges

- ✓ Women provide most of the labour, but men typically control the income.
- ✓ Women often face harassment when selling fish to traders, as the trade environment is aggressive and male-dominated.
- ✓ Limited access to capital prevents many women retailers from buying fish and participating fully in the sector.
- ✓ Women have less access to central fish markets since trading hours often clash with their care responsibilities.

Solutions and their Impact

- ✓ Decentralized aggregation hubs – Increase women's earnings, save time accessing markets, and lower harassment risks.
- ✓ Digital app – Provides affordable offcuts that women can add value to and resell, reducing the need for large upfront capital.
- ✓ Distributed market access – Prioritizes supplying women in local markets who often miss out on quality stock from central markets.
- ✓ Diversified incomes – Supports women to adopt fish farming, strengthening resilience and boosting incomes.

“...our services and products try to make it **easier for women to participate** in economic activities”

Francis | CEO, KeepITCool



Case study: Farm to Feed (Kenya)

Farm to Feed reduces post-harvest losses by buying entire harvests, including imperfect produce, through a digital platform, reaching 6,450 farmers of whom 56.8% are women, boosting women's incomes, saving time, and improving resilience.



Gender-specific Challenges

- ✓ Women farmers struggle to access high-value markets due to barriers like land ownership, transport, weak buyer networks, and exclusion from formal supply chains, often leaving them with unsellable produce.
- ✓ Limited access to information and low digital literacy hinder women's ability to use agricultural services effectively.
- ✓ Data on women is scarce, as cultural norms and lack of confidence make them less forthcoming, complicating the design of services that meet their needs.

Solutions and their Impact

- ✓ Full offtake – Buys the entire harvest from farmers, reducing waste and allowing women to earn from produce that would otherwise be lost, boosting their income.
- ✓ Access to information – Provides weather forecasts and training on practices like regenerative agriculture via the app.
- ✓ Inclusive technology – Ensures accessibility through multiple channels, including free USSD codes.
- ✓ Apiculture training – Promotes additional income streams to strengthen incomes and resilience against climate shocks.

“...It [digital platform] **reduces the need to transport** produce to the market, **particularly for women**, who find this cumbersome, given their domestic chores and care work.”

Claire Van Enk | CEO, Farm to Feed



Case study: Mazao Hub (Tanzania)

Mazao Hub provides digital agronomy, soil analysis, and farm management tools that improve yields and market access for smallholder farmers in Tanzania, reaching 47,000 farmers of whom 40% are women.



Gender-specific Challenges

- ✓ Social norms restrict women's land ownership, leaving men in control of income from their labour.
- ✓ Limited on-ground data obscures women's contributions and prevents fair revenue sharing.
- ✓ Lack of agronomic support results in lower yields for women farmers.
- ✓ Poor access to markets limits women's ability to earn sustainable incomes.
- ✓ Women's strong drive to improve their farms makes them more vulnerable to exploitation.

Solutions and their Impact

- ✓ Her Farm Her Story – Provides tailored support for women farmers to promote fairness in income distribution.
- ✓ Malkia wa Shamba – Strengthens data collection to capture women's contributions even when land is registered under men.
- ✓ Market Access – Partners with off-takers to purchase produce, benefiting women with limited mobility.
- ✓ Agronomic Support – Delivers trusted guidance and inputs that boost yields, resilience, and incomes.

“...we established ‘Her Farm Her Story’ to better support and impact women”

Geophrey Tenganamba | CEO, MazaoHub



Case study: Agro Supply (Uganda)

Agro Supply delivers climate-smart agricultural solutions such as seed research and inputs soil nutrition training, post-harvest management, and market access, reaching 30,000 farmers of whom 40.5% are women.



Gender-specific Challenges

- ✓ Women do most farm work, but land is typically owned by men, who often control income, limiting women's decision-making.
- ✓ Competing priorities mean harvest earnings are spent before the next season, leaving little to reinvest or forcing women to take credit.
- ✓ Care responsibilities lead women to work closer to home, narrowing their earning opportunities.
- ✓ Social norms leave rural women less literate, limiting access to information and excluding them from other income sources.

Solutions and their Impact

- ✓ Intercropping training – Helps women optimize use of family land, improving household food security and creating surplus to sell.
- ✓ Climate-resilient inputs – Raise productivity and increase women's earnings.
- ✓ Savings/layaway for inputs – Lets women pre-pay for next season, ensuring access to inputs without taking on debt.
- ✓ Localized agent network – Brings services and training closer to women, reducing time/travel barriers and boosting participation and income.

“...if you want to eradicate poverty and hunger, women are always in the center of every family household.”

Joseph Ogwal | CEO, Agro Supply



Case study: Enakl (Morocco)

Enakl, founded in 2021 provides safe, affordable pooled bus transport through an online booking system, with women making up about 75% of its daily 1,000 users, thereby improving their mobility, safety, and access to economic opportunities.



Gender-specific Challenges

- ✓ Women own fewer private cars than men, and public transport is often considered unsafe, with only one in four commuters being a woman.
- ✓ While convenience and timeliness affect all commuters, women are more disadvantaged as their use of public transport is already limited.
- ✓ Issues faced with public transport are really resolved making them to be perceived poorly by women

Solutions and their Impact

- ✓ Safety and respect – Trips are pre-booked, with vetted and trained drivers, ensuring women's safety and respectful treatment.
- ✓ Online booking & guaranteed seat – A fully online system allows booking from anywhere, guaranteeing seats, timeliness, and comfortable travel.
- ✓ Affordable travel – Offers lower costs than private transport while retaining key benefits of safety and convenience.
- ✓ Feedback & redress – Provides clear feedback channels and strong mechanisms to address any cases of harassment.

...3 of 4 of our users are women this is because we addressed the safety, convenience and affordability issue

Charles Pommarede | CEO, Enakl



Case study: Bekia (Egypt)

Bekia provides a tech-enabled waste collection and recycling platform that rewards households with cash, directly benefiting women who make up 97% of its clients by turning waste into income while promoting environmental conservation.



Gender-specific Challenges

- ✓ Women are primarily responsible for disposing household waste, making them key to effective waste management and recycling.
- ✓ Many low-income women remain home with few earning options, so waste-for-value incentives can directly support their livelihoods.
- ✓ Informal trash collectors are often distrusted due to unknown backgrounds and safety risks, highlighting the need for reliable, secure waste services.

Solutions and their Impact

- ✓ Impact – Collects over 100 tonnes of waste each month, reducing landfill emissions, engaging women in conservation, and fostering environmental stewardship.
- ✓ Incentives – Starts with groceries and later includes cash rewards for waste collection, turning a previously valueless activity into a source of income.
- ✓ Verified collectors – Ensures waste collectors are vetted for safety, protecting users who are predominantly women.

“...involving women in the circular economy of waste management is directly beneficial, in **environmental conservation** but also in **enhancing their incomes**.”

Alaa Afifi | CEO, Bekia



Case study: Medikea (Tanzania)

Bekia provides a tech-enabled waste collection and recycling platform that rewards households with cash, directly benefiting women who make up 97% of its clients by turning waste into income while promoting environmental conservation.



Gender-specific Challenges

- ✓ Access to quality care is uneven: insured patients use larger hospitals, while the uninsured often rely on pharmacies, leaving many women underserved.
- ✓ Public healthcare is affordable but overcrowded and understaffed, while private care is prohibitively expensive.
- ✓ Women with limited mobility face greater challenges in reaching quality healthcare services.
- ✓ Time spent on hospital visits reduces women's ability to engage in wage-earning activities.

Solutions and their Impact

- ✓ Affordable specialized care – Provides access to specialized and affordable healthcare services.
- ✓ Women's health focus – Prioritizes areas that predominantly affect women, including sexual and reproductive health, dermatology, and fertility.
- ✓ Telemedicine – Attracting a majority of women, benefiting from its convenience given competing priorities and mobility constraints.
- ✓ Time-saving services – Scheduled appointments and home visits minimize time lost to hospital visits.

...affordable healthcare services through telemedicine, enable us to **serve women where they live and work**...minimizing travel and carbon footprint.”

Elvis Silayo | CEO, Medikea



Call to Action

In conclusion, **gender-inclusive climate solutions deliver stronger adoption, deeper resilience, and broader community impact**. Yet today, most outcomes remain under-measured, under-capitalized, and often incidental rather than intentional. We invite feedback from innovators, investors and ecosystem actors to continue building on these initial findings.

To unlock the full potential of this opportunity, we call on:

Researchers

Build on this study by developing sector-specific insights across agriculture, health, energy, mobility, and waste.

Strengthen the evidence base with longitudinal data on how women's empowerment drives business growth and climate resilience outcomes.

Funders and Investors

Direct catalytic capital to gender-smart climate startups, ensuring they have the resources to design intentionally and collect meaningful data.

Invest in ecosystem partnerships that bring researchers, innovators, and investors together to accelerate learning and replication.

Closing Note



Why Inclusive and Equitable Innovation is Key for Sustainable and Resilient Industrialisation

Inclusive and equitable innovation is a structural necessity for building sustainable, resilient industries. By engaging diverse perspectives, especially those of women and marginalized groups, innovation becomes more effective, responsive, and durable.

- **Shared prosperity through inclusion:** Industrialization that encompasses women, youth, and marginalized groups ensures that no one is left behind, distributing growth benefits more equitably and enhancing economic resilience.
- **Innovation as a dual driver of sustainability:** Technologies designed for efficiency (resource, energy, and circular economy solutions) achieve far greater impact when social equity is embedded in innovation pathways.
- **Gender-responsive policy boosts innovation systems:** Mainstreaming gender in industrial innovation strengthens policy design and outcomes, making innovation systems both fairer and more effective.
- **Empowerment raises productivity and resilience:** Programs expanding women's access to resources and leadership boost productivity, economic inclusion, and resilience in industrial contexts.
- **Inclusive digital innovation bolsters adaptive ecosystems:** Ensuring fair access, digital skills, and MSME engagement in tech ecosystems promotes resilient, innovation-driven industries.
- **Diverse leadership fuels creativity and performance:** Gender-diverse teams consistently deliver higher creativity, stronger decision-making, and improved financial outcomes.
- **Inclusive innovation delivers contextual relevance:** Innovations shaped by and for an underserved population tend to be sustainable, scalable, and culturally relevant.

Eleonora Gatti

Head, Climate Technology Innovation, UNIDO

References

1. United Nations Industrial Development Organization. (2013). [Lima Declaration: Towards inclusive and sustainable industrial development](#). UNIDO.
2. World Economic Forum. (2023). [4 ways inclusive innovation ecosystems can accelerate gender equality](#).
3. United Nations Industrial Development Organization. (2025). [Working paper on gender mainstreaming in industrial innovation policy](#). Vienna: UNIDO.

Annex

Resources for Startups and Investors

Gender frameworks

→ [2X Criteria](#)

→ [Women Empowerment Principles \(WEPs\)](#). - Assessment tools and detailed guidelines accessible to members here

Gender-lens investing

→ BII & IFC [Fund managers guide to gender-smart investing](#) (2020)

→ Criterion Institute, [Introducing Standards of Practice for Gender Lens Investing](#) (2024)

→ Criterion Institute, [Reimagining gender lens investing futures: Possibilities and perspectives from the field](#) (2025)

→ Female Founders Fund: [A Look Back at the Past Decade — and the Road Ahead for Female Founders](#) (2025)

→ Value for Women: [Investment Guide: Gender & Social Inclusion \(GESI\) Lens Investing](#) (2024)

About the Project that Supported this Research



Project title

Acceleration of Fintech-enabled Climate Resilience Solutions

Funder

Global Environmental Facility

Partners

UNIDO and BFA Global

Goals

Increase the resilience of African climate-vulnerable communities by supporting high-impact startups in 5 African markets and building an enabling innovation ecosystem around them.

Objectives

Component 1

Accelerate Fintech-Enabled Climate Resilience Startups

in Kenya, Nigeria, Rwanda, South Africa, and Uganda through dedicated venture building support

Component 2

Strengthen the Climate Resilience Ecosystem

by engaging investors, talent, and a range of other stakeholders to generate awareness and deepen support in the space.

Component 3

Monitor Progress Results

to ensure project agility in recalibrating efforts where needed to optimize impact.

Accelerating Climate Resilience Innovation



Project title

Catalysing Climate Resilience

Funder

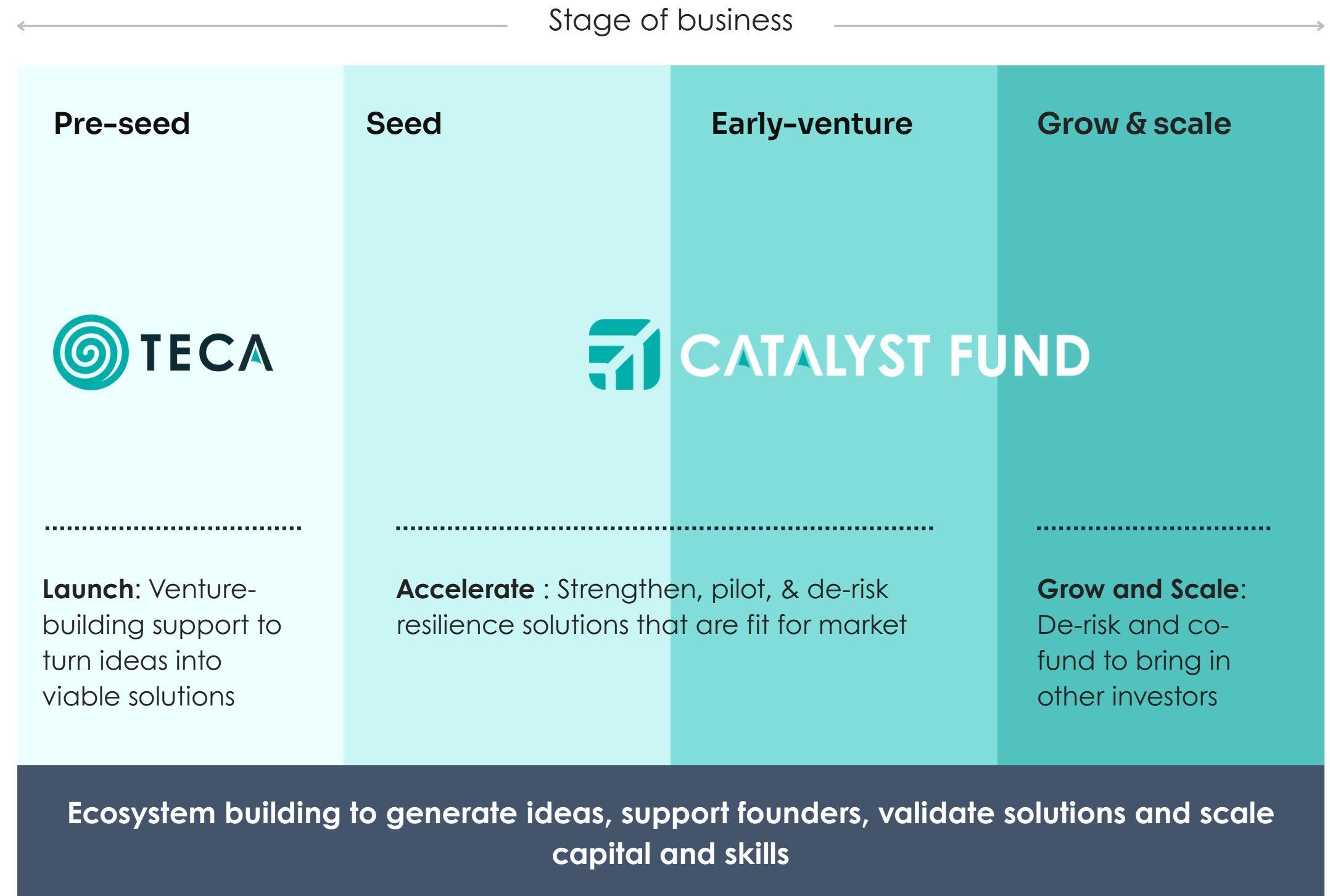
FSD Africa

Partners

BFA Global, Catalyst Fund

Goals

The program aims to spur more innovation for climate resilience by seeding and incubating bold new climate resilience solutions, funding companies with capital and tailored venture building, and building the wider innovation ecosystem to enable climate innovation in Africa.



Thank You!

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