

CITY-TO-VILLAGE CIRCULAR FOOD SYSTEM · NAIROBI, KENYA · GLOBAL LMIC GOVERNANCE ARCHITECTURE

Building the standards before the market writes them without us.

A \$546 billion circular economy market is being built across Sub-Saharan Africa. HUMANDREAM Foundation is building the governance architecture that determines whether it serves 33 million smallholder farmers — or prices them out permanently. The window to establish development-mandate standards is 3–7 years. It is open now.

165

Countries with no food
waste NDC mandate as of
COP30, 2025

3–7 yrs

Window before commercial
operators establish LMIC
circular food governance
standards

\$546B

Africa circular economy
market by 2030 — almost
entirely ungoverned for
community access

THE GOVERNANCE WINDOW

The standards have not been written. The window is open. It is closing.

At COP30 (November 2025), 88% of countries had made no NDC commitment to reducing food waste — which generates 10% of global GHG emissions. One hundred and sixty-five countries have no food waste governance standard. This is not an oversight. It is a vacuum — and who fills it is being decided now.

THE COMMERCIAL OPERATORS ARRIVING

Black soldier fly protein is growing at 28-34% CAGR globally. Private equity-backed operators — InnovaFeed, Protix, Enterra — are evaluating East Africa market entry. Commercial fertiliser companies Yara and OCP are entering organic product lines using existing agro-dealer networks.

These operators serve profitable customers: commercial farms, export agriculture, and urban institutional buyers. Thirty-three million smallholder farmers are not the profitable customer. Without governance standards requiring community access provisions, they will be priced out of a system built from their own communities' waste.

The temporal logic is irreversible. Standards written before commercial entry embed development interests as the baseline. Standards written after are retrofits that commercial operators resist. The 3-7 year window is structural — not a strategic preference.

THE INSTITUTIONAL MOMENT

The African Union adopted its Continental Circular Economy Action Plan in July 2025. The AfDB incorporated circularity into its Ten-Year Strategy 2024-2033. NDC revision cycles across 165 countries will adopt governance standards for circular food systems. The question is whether those standards embed development mandate — or commercial interest.

SIX LOSSES WITHOUT GOVERNANCE STANDARDS

DIMENSION	WITH GOVERNANCE STANDARD	COMMERCIAL DEFAULT
Food security	3-5M people with certified inputs at cost-plus; cooperative access guaranteed	33M smallholders priced out; no access mandate exists
Employment	Informal sector integrated; cooperative margins retained locally	Waste pickers displaced; 11M jobs become piece-rate commercial labour
Climate	NDC gap closes; methane reduction at scale mandated	165-country vacuum persists; food waste's 10% GHG unaddressed
Industry	AfDB conditionality routes \$546B through development-mandate governance	Commercial standards govern 50+ SSA cities for 30 years
Gender equity	50%+ women employment constitutional — enforceable, not aspirational	No mandate; gender provisions become optional CSR
Global LMIC	135+ countries have a proven open governance blueprint	Each country inherits commercial standards by default

These are not independent risks. The governance vacuum in one dimension reinforces every other. The window to prevent all six simultaneously is the same 3-7 years.

WHAT CTVCFCS IS

The hub is the evidence base. The Open Protocol Library is the legacy.

A minimum viable anaerobic digestion and composting hub in Nairobi converts urban organic waste into certified agricultural inputs for smallholder cooperatives. Every operational decision becomes a published governance standard – openly available for AfDB, AU, and national governments to adopt before commercial operators write their own version.

THE OPERATIONAL MODEL

Sub-Saharan Africa's cities generate 60-70% of municipal solid waste as organic material – currently landfilled and generating methane. Rural smallholder farmers simultaneously face rising fertiliser prices and declining soil health. The CTVCFCS hub collects institutional organic waste from Nairobi markets, hotels, universities, and restaurants. That waste becomes KEBS-certified organic fertiliser and liquid digestate, distributed to cooperative societies in Central Kenya at cost-plus pricing – guaranteed by off-take agreements with buyer-of-last-resort provisions.

HUB-SPOKE-SATELLITE ARCHITECTURE

A central hub serves peri-urban farmers (0-40 km). Spoke distribution points at 40-80 km supply near-rural cooperatives. Satellite micro-composting units at 80-150 km process local organic material using hub digestate as a microbial inoculant. The satellite model is the replication breakthrough: county governments can deploy it through existing extension officers – without building new hubs.

TECHNOLOGY SEQUENCING PRINCIPLE

Phase 1 is AD and composting only. Black soldier fly protein (Phase 2) and rural biogas distribution (Phase 3) activate only when prior operations are stable and demand is demonstrated. This prevents the premature capital deployment that causes most LMIC circular hub failures.

COLLECTIVE IMPACT BACKBONE

HUMANDREAM is the convener and governance architect – not the operator. Sanergy provides Year 1 technical support. KALRO certifies quality. KENAFF coordinates cooperatives. KEBS co-designs certification. Each partner does what they do best.

OPEN PROTOCOL LIBRARY

Published openly – not proprietary – so development institutions can adopt it as a public governance standard. Built from Nairobi operational evidence and published before commercial operators establish market presence.

1 - Guaranteed Waste Supply Protocol

Institutional waste MOU architecture

2 - Demand-Side Development Protocol

Three-tier farmer adoption framework

3 - Financial Architecture Protocol

Milestones, buyer of last resort, market floor

4 - Regulatory Comparison Standard

Kenya, Ghana, Nigeria framework

5-6 - Spatial Design Standards

Hub-spoke-satellite replication blueprint

7 - Failure Recovery Protocol

Three-tier operational resilience

8 - BSF Governance Standard

Published before commercial BSF entry

Why open? A proprietary standard cannot become the AfDB reference standard. The Open Protocol Library's leverage depends on being freely adoptable by governments and development institutions.

IMPACT ARCHITECTURE

Five simultaneous benefit streams. One governance architecture unlocks all of them.

The CTVCFs model generates interdependent benefits that cannot be disaggregated without destroying the model's logic. Each stream is contingent on governance standards being established — which is why the governance window is the intervention, not the hub itself.

3–5M+

STREAM 1 — FOOD SECURITY

People with improved food security across 50+ SSA cities and global LMIC replication over 20 years. Certified organic inputs at cost-plus pricing reduce smallholder input costs by 25%+. Mission-lock provisions ensure commercial market growth cannot price cooperatives out.

500K+

STREAM 2 — EMPLOYMENT & INDUSTRY

Formal green jobs — direct and induced — across 50 SSA cities. Living wage, cooperative-owned, with informal sector integration provisions. Africa's circular economy is projected to generate 11 million jobs by 2030. CTVCFs governance standards determine whether those jobs carry community ownership or commercial extraction terms.

6–13 Mt

STREAM 3 — CLIMATE

CO₂e avoided across 50 cities over 20 years: methane avoidance, avoided fertiliser production emissions, soil carbon, and biogas displacement of charcoal. Food waste generates 10% of global GHG — five times all aviation. Reducing food waste alone can cut global methane by 15%, half the Global Methane Pledge target.

50%+

STREAM 4 — GENDER EQUITY

Women in employment across all tiers — constitutional across all replication cities, not aspirational. Cooperative board representation provisions give women fiduciary governance roles. Anti-uncompensated-labour provisions in satellite design prevent unpaid work from being imposed on women smallholders. Without governance standards, these protections become optional CSR with no enforcement mechanism.

135+

STREAM 5 — GLOBAL LMIC REPLICABILITY

Countries beyond SSA — South Asia, Southeast Asia, and Latin America — face identical governance vacuums. The Open Protocol Library, adopted by UNEP and FAO as an LMIC reference architecture, means no country needs to prove the model from scratch. Without CTVCFs, each country inherits commercial standards by default.

GUARANTEED VS. CONTINGENT — AN EXPLICIT SEPARATION

GUARANTEED — NAIROBI HUB, YEAR 10	CONTINGENT ON GOVERNANCE STANDARD
5,000 households; ~22,500 beneficiaries; 25%+ input cost reduction	3-5M+ people; 500K+ jobs; 6-13 MtCO ₂ e
55-80 formal green jobs at hub, spoke, satellite	165-country NDC gap closes; CTVCFs as AfDB and AU reference standard
10+ published open governance protocols	135+ LMIC countries adopt open governance blueprint

We present these separately because conflating operational targets with governance leverage projections is the most common credibility failure in development communications.

LEADERSHIP & ORGANIZATIONAL CREDIBILITY

HUMANDREAM Foundation

A minority and woman-founded California 501(c)(3) is building collective impact programs across Kenya, the DRC, and California. We bring the discipline of collective impact to each context and let each partnership determine what the work needs to become.

Mesan Che Richardson — Founder

Mesan built his professional life around a single question: how do you build infrastructure for people that existing systems were never designed to include? As a professional actor and then through twenty years in higher education — designing access systems for first-generation students, deploying technology to scale human outcomes, navigating institutional bureaucracy to create structural change — he developed the capabilities that governance architecture requires. The domain changed when he founded HUMANDREAM Foundation. The discipline did not.

The conviction driving CTVCFS is personal. Mesan grew up food insecure in South Central Los Angeles. He is building the governance architecture so that, this time, the standards exist before the rules are written by people with different priorities.

"Humanity has never lacked compassion or solutions. What it has lacked is a shared architecture to connect them."

— Mesan Che Richardson, Founder

Advisory board

Ruby Guillen, MSW — White House President's Lifetime Achievement Award recipient; Co-Chair, United Nations Association USA, Human Rights Affinity Group. Global board development is an active priority: development finance, Kenyan institutional, gender equity, and climate governance expertise being recruited now.

BUILDING NOW

→ Phase 0 MOU negotiations

Sanergy, KENAFF, KEBS certification co-design

→ AfDB Feed Africa 2.0 concept note

Flagship designation — Phase 0 submission priority

→ Open Protocol Library — Working Paper 1

GWSP — establishing HUMANDREAM as governance institution before hub construction

Three programs — one thesis

The people closest to the problem hold the knowledge to solve it. What they need is infrastructure.

DRC — proof of the collective impact model

Partner: Byolenganya Olo Bernoulli, CSC-Asbl, Uvira, South Kivu.

3,724 people reached in 2024 on a \$19,000 budget — as the community architect of the solution, not as an aid recipient.

The institution provides infrastructure. The community provides knowledge. HUMANDREAM is building the infrastructure to scale Olo's demonstrated impact.

PROGRAM 2 — LONG BEACH, CALIFORNIA

CHW Corps builds a community health worker pipeline from the communities that need it most. We recruit and place workers who hold the cultural knowledge no outside program can replicate.

PROGRAM 3 — NAIROBI, KENYA

The City-to-Village Circular Food System initiative — the governance architecture program described in this prospectus.

THE FOUNDING PARTNER INVITATION

Shape the architecture before the market writes its own rules.

Founding partners are not funding a hub. They are funding the creation of a permanent governance record. The Open Protocol Library is a Phase 0 deliverable — partners named in it will be permanently embedded in the governance standard AfDB and AU will reference across 50+ SSA cities, and that UNEP and FAO are positioned to adopt as the reference architecture for circular food systems across 135+ additional LMIC countries in South Asia, Southeast Asia, and Latin America.

TIER 1 Governance Founding Partner

\$250,000 - \$500,000 · proof-of-concept grant · maximum two partners

For: major foundations, development agencies, USAID DIV

The principal funding that executes Phase 0. One or two partners at this level make the governance window action possible.

- Named in perpetuity in the Open Protocol Library as Governance Founding Partner
- Seat on Phase 0 Protocol Advisory Group — input before publication
- Named on AfDB Feed Africa 2.0 concept note submission
- Quarterly founder briefings, Phase 0 and Phase 1
- First right of engagement for Phase 2 replication financing
- Named in all HUMANDREAM institutional materials for five years

TIER 2 Protocol Founding Partner

\$50,000 - \$249,000 · named protocol funding · three to five partners

For: mid-tier foundations, corporate CSR programs, bilateral development agencies

Each Tier 2 partner funds one named protocol. The protocol carries the partner's name permanently — embedded in the standard governing 50+ SSA cities and positioned for global LMIC adoption through UNEP and FAO.

- A named protocol — e.g., "[Partner] Demand-Side Development Protocol — embedded in governance standards referenced across SSA and 135+ LMIC countries "
- Participation in one protocol design workshop
- Named in Open Protocol Library founding partners section
- Bi-annual founder briefings and impact reports
- SDG and climate documentation for CSR reporting
- Named in HUMANDREAM annual report and website

TIER 3 Community Founding Partner

\$15,000 - \$49,000 · open

For: smaller foundations, individual major donors, smaller CSR programs

The early believers. First-mover recognition is permanent in the Open Protocol Library and in HUMANDREAM's institutional history.

- Named in **Open Protocol Library founding partners section**
- **Annual impact report** and founder briefing
- Named on HUMANDREAM website founding partners page
- Invitation to founding partner community of practice

CONTACT

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"Build the standard before the market arrives. Develop the demand before the supply exceeds it. Reach every village before the road arrives."