

In alignment with World Bank Project ID P511478

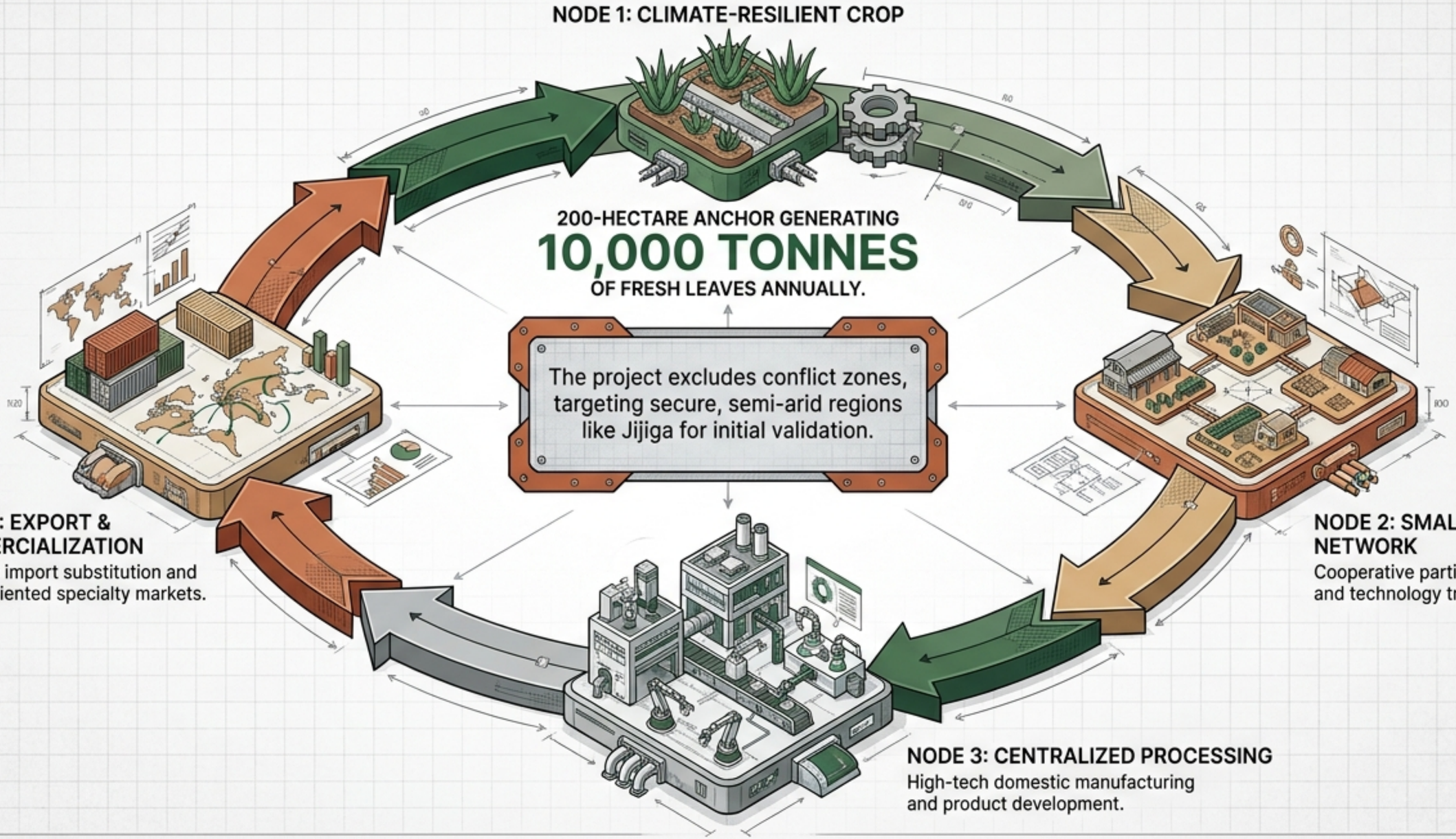
Beyond the Commodity: An Integrated Aloe Vera Agro-Industrial Value Chain for Ethiopia

Target:	**Federal Democratic Republic of Ethiopia — Ministry of Agriculture**
Core Mission:	**Transforming climate-resilient agriculture into a national industrial platform.**
Proposed Technology & Technical Partner: Aloetrade America **LLC**	

Aloe Trade

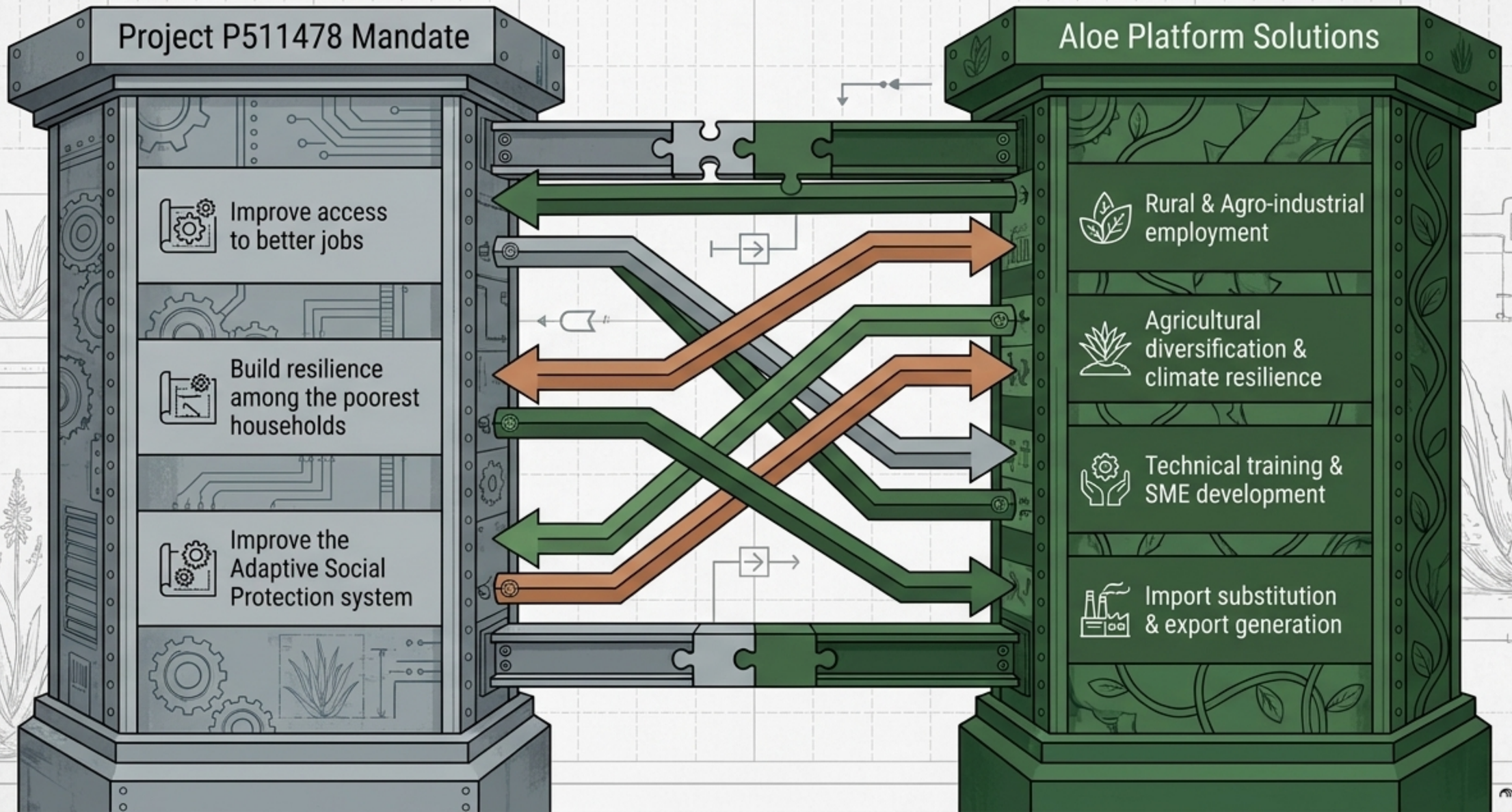
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An Agricultural, Industrial, and Employment Platform



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Strategic Alignment with World Bank Component 1



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Escaping the Commodity Trap

Traditional Model		Aloe Biorefinery Model
Raw, unprocessed commodity	**Product Output**	Processed manufacturing and higher-value products
Single agricultural market	**Market Reach**	Multi-sector (Ag, Livestock, Food, Cosmetics)
Bulky/perishable export	**Logistics**	Value-addition near the production area
Low local/seasonal jobs	**Job Creation**	Massive direct/indirect job creation (Ag + Industrial + SME)
High vulnerability	**Climate Profile**	Drought-tolerant semi-arid diversification

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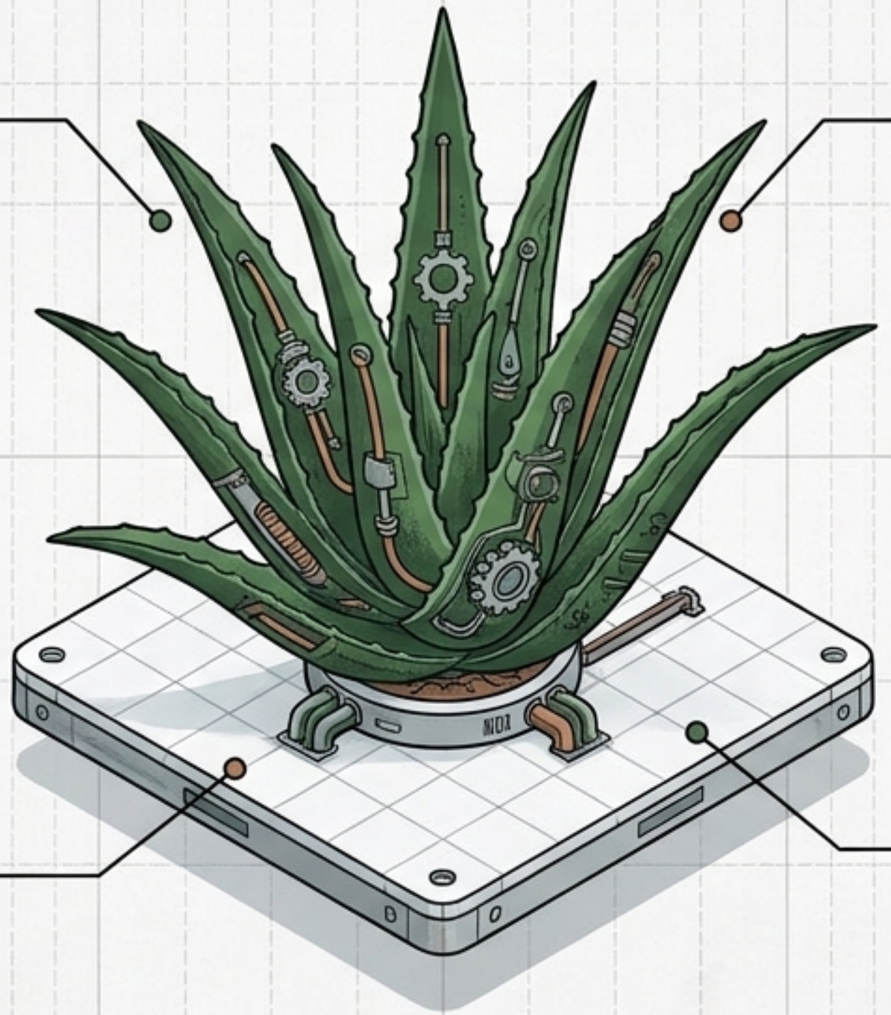
The Biological Catalyst for Diversification

Drought Tolerance

Succulent adaptation for semi-arid environments facing climatic constraints.

Multi-Industry Utility

One crop supplies agriculture, livestock, food, and specialty chemical value chains.



Perennial Biomass

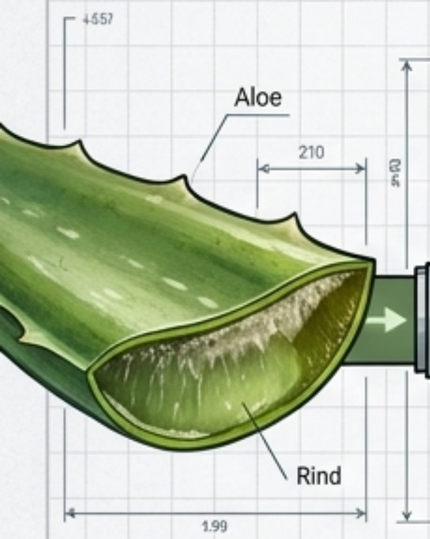
Recurring harvests and continuous raw material supply after initial establishment.

CITES Exemption

Aloe vera (Aloe barbadensis miller) is exempt from CITES controls, enabling seamless international trade.

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Maximum Value from Every Leaf: The Zero-Waste Biorefinery



BIOREFINERY NODE

Primary Fraction: Inner Gel

Flows to Agricultural formulations, Concentrates, Beverages, Cosmetics.



Secondary Fraction: Whole Leaf/Rind

Flows to Agricultural biostimulants, Soil products, Fodder for animals.



Specialty Fractions

Flows to Polysaccharide-rich technical ingredients and seed treatments.



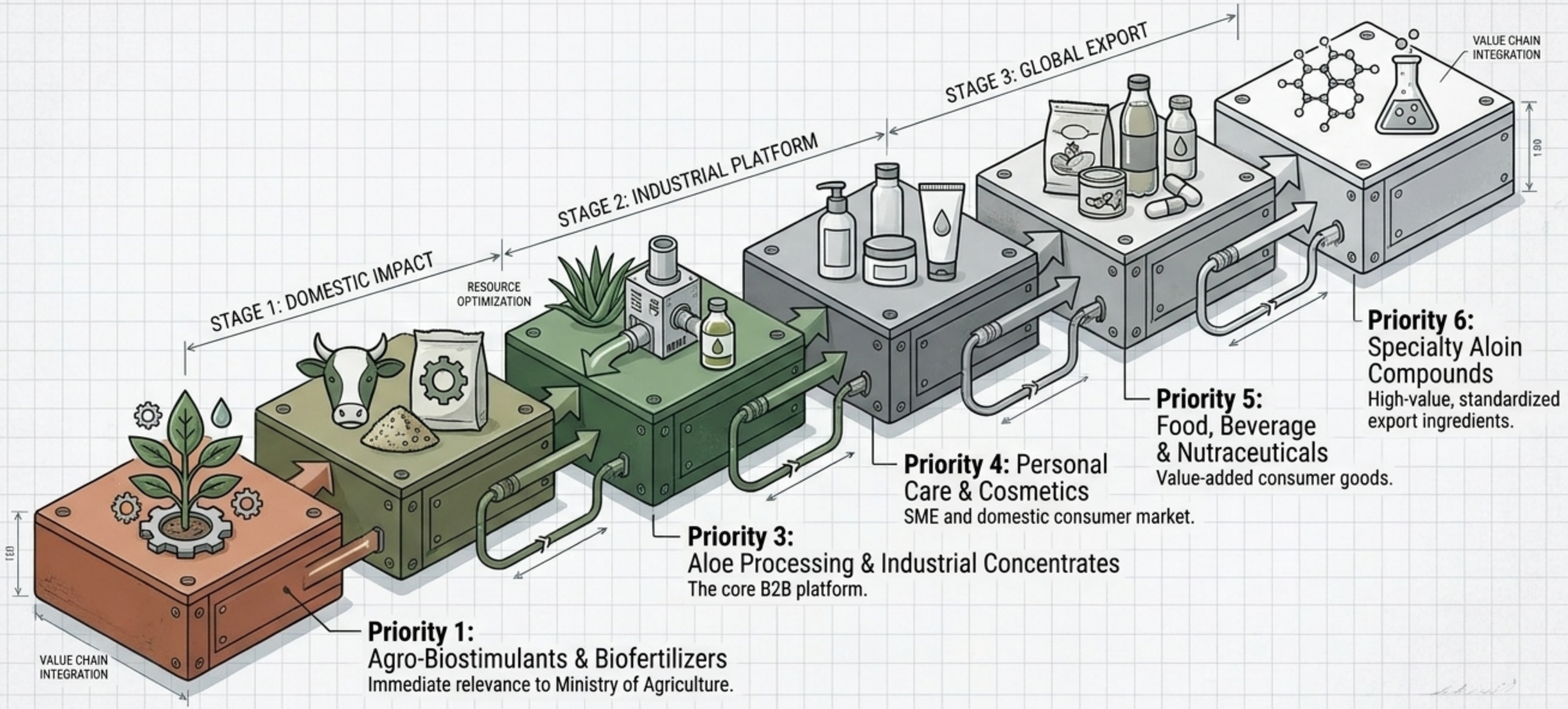
Residual Biomass

Flows to Compost, soil amendments, and biogas feasibility.



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Sector Sequencing: From Domestic Impact to Global Export



Priority 1:
Agro-Biostimulants & Biofertilizers
Immediate relevance to Ministry of Agriculture.

Priority 3:
Aloe Processing & Industrial Concentrates
The core B2B platform.

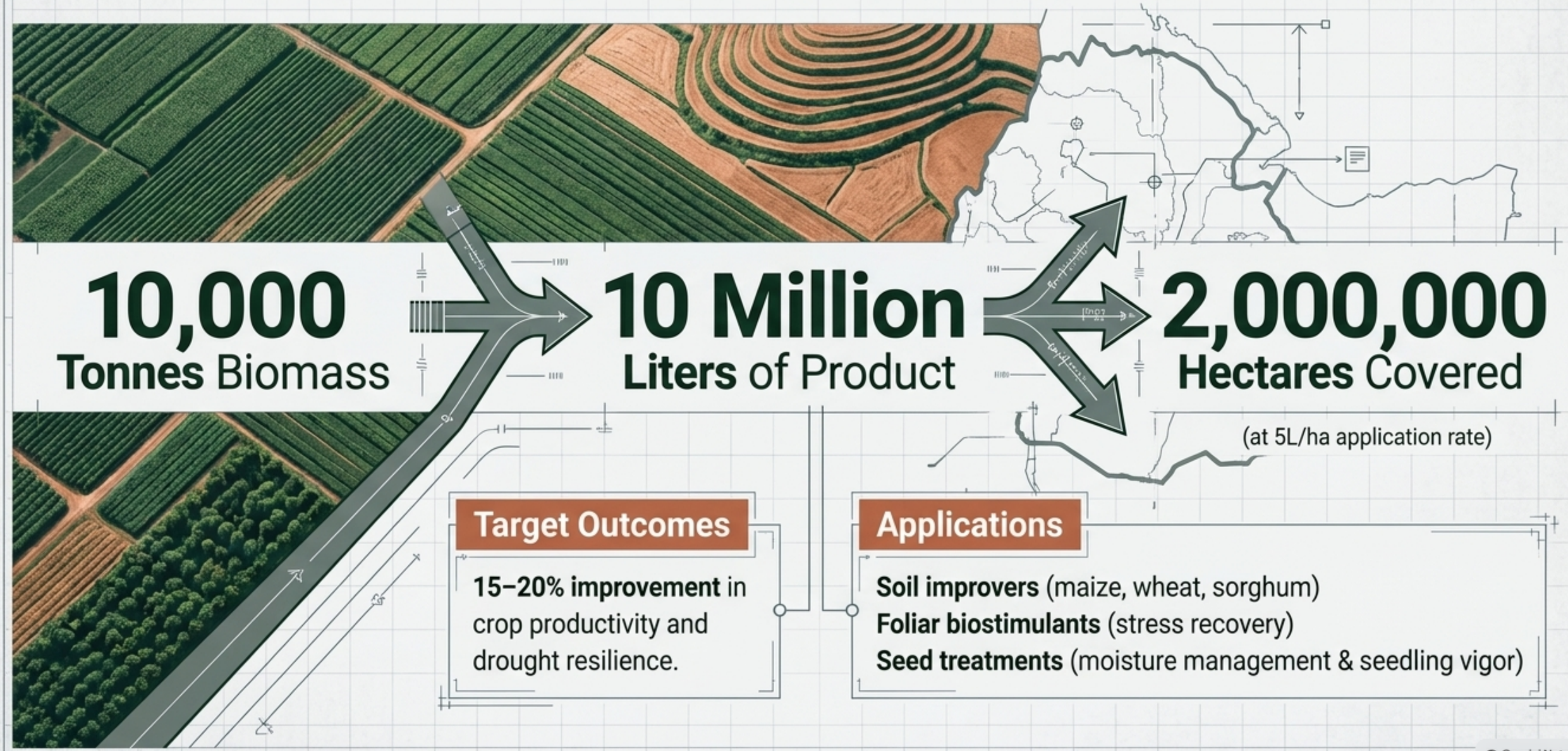
Priority 4: Personal Care & Cosmetics
SME and domestic consumer market.

Priority 5:
Food, Beverage & Nutraceuticals
Value-added consumer goods.

Priority 6:
Specialty Aloin Compounds
High-value, standardized export ingredients.

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Supercharging Ethiopian Agriculture



10,000
Tonnes Biomass

10 Million
Liters of Product

2,000,000
Hectares Covered

(at 5L/ha application rate)

Target Outcomes

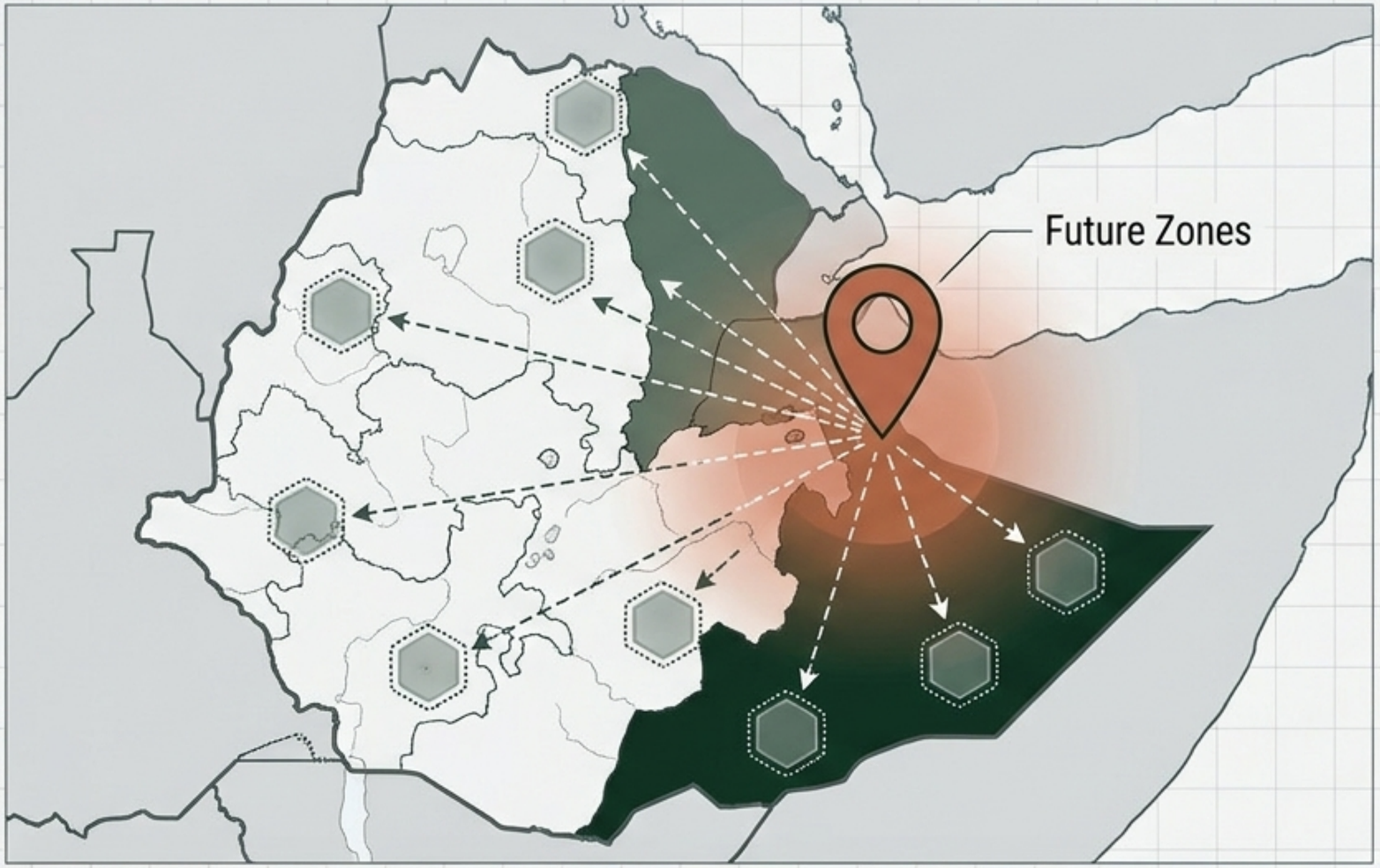
15–20% improvement in crop productivity and drought resilience.

Applications

Soil improvers (maize, wheat, sorghum)
Foliar biostimulants (stress recovery)
Seed treatments (moisture management & seedling vigor)

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Hub and Spoke: The Geographic Strategy



Validation Checklist required for final site selection:

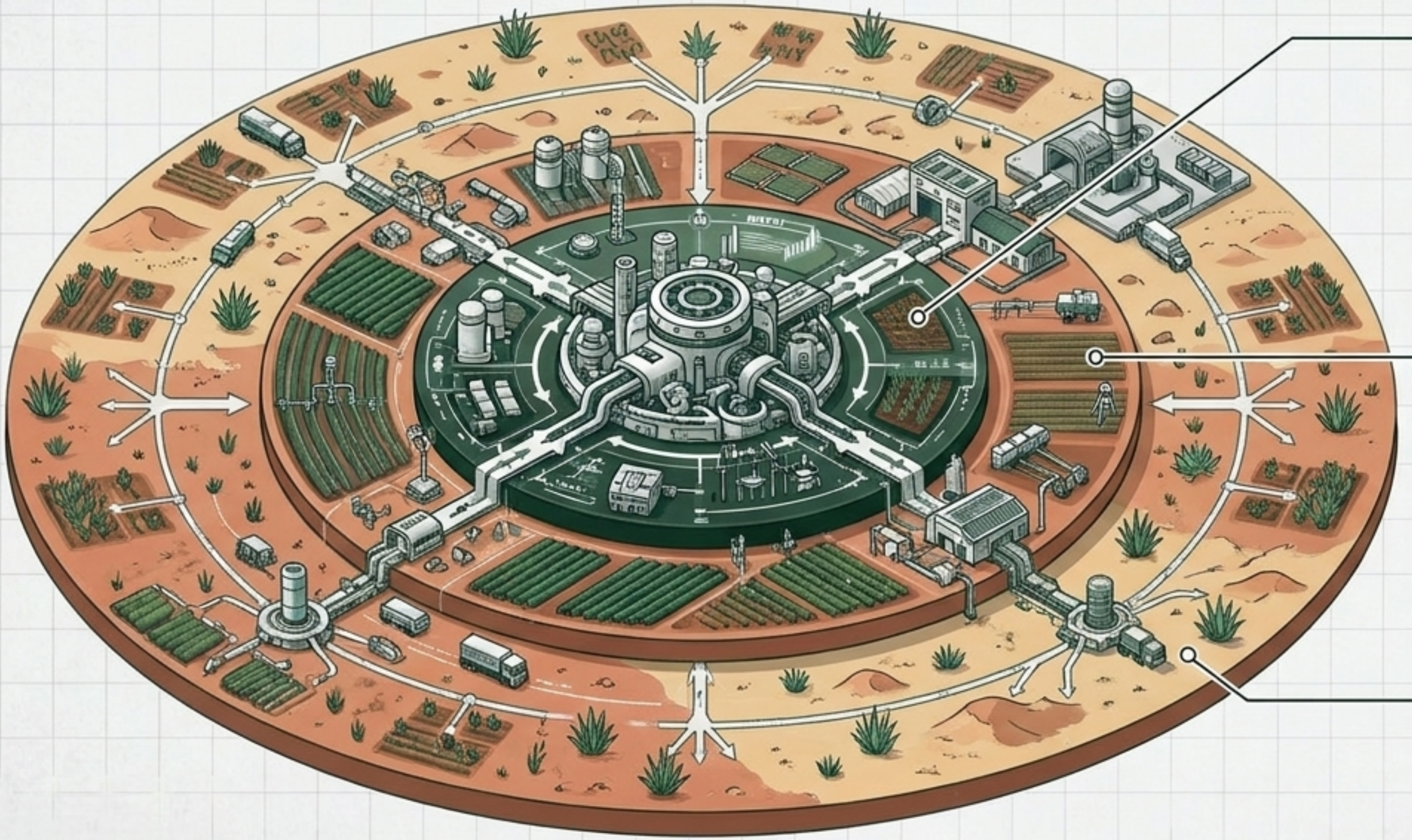
- Agronomic evaluation
- Soil/water analysis
- Road access
- Electricity
- Export corridor proximity
- Security assessment

The Model: One central industrial processing platform supporting multiple agricultural production zones.

Initial Anchor: Jijiga / Somali Region (selected for semi-arid profile and livestock economy).

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The 3-Level Cooperative Scaling Model



Level 1: Demonstration Farm (50–80 ha)

Validates agronomy, establishes planting material, trains farmers, collects yield data.

Level 2: Commercial Plantation (200 ha)

Operates the processing plant, establishes raw-material supply, validates commercial economics.

Level 3: Outgrower Network (500–1,000+ ha)

Processing facility acts as central buyer. Farmers receive training, planting material, quality standards, and an organized market with potential offtake mechanisms.

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The Socio-Economic Engine

Agricultural

Nursery workers, irrigation, harvesting, crop monitoring.

Commercial

Distributors, sales, logistics, export ops.

Demographic Targets

Women: Nurseries, cosmetics, retail, cooperative production.

Youth: Drone crop monitoring, lab work, digital agriculture, industrial formulation.

Industrial

Processing operators, lab staff, quality control, maintenance.

Entrepreneurial (SMEs)

Farming, packaging, cosmetics, feed manufacturing.

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Aloetrade America

25+ Years Experience

40+ Agricultural Projects

27 Industrial Projects

The Proposition

More than technology supply. The partnership delivers:
Technology + Know-how + Training + Product Development + Commercialization.

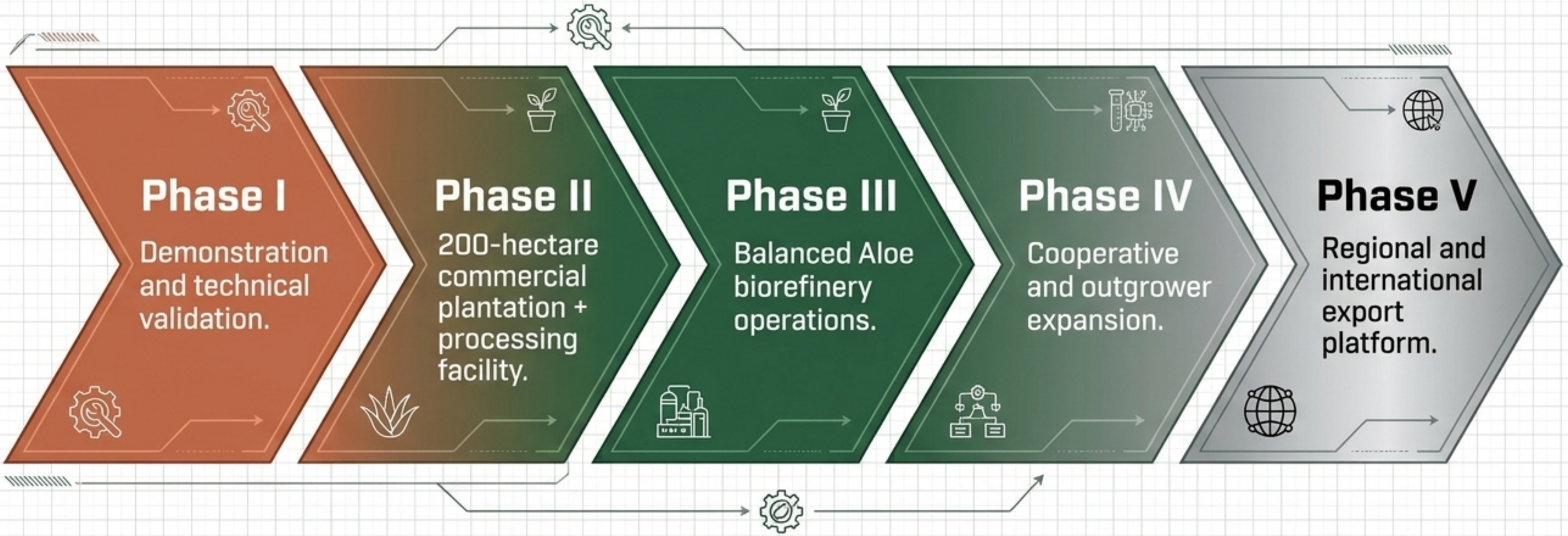
Proprietary Assets

Trade secrets and licensed formulations for pre-harvest solutions, feed products, and specialty industrial ingredients. Over 600 aloe growers trained.



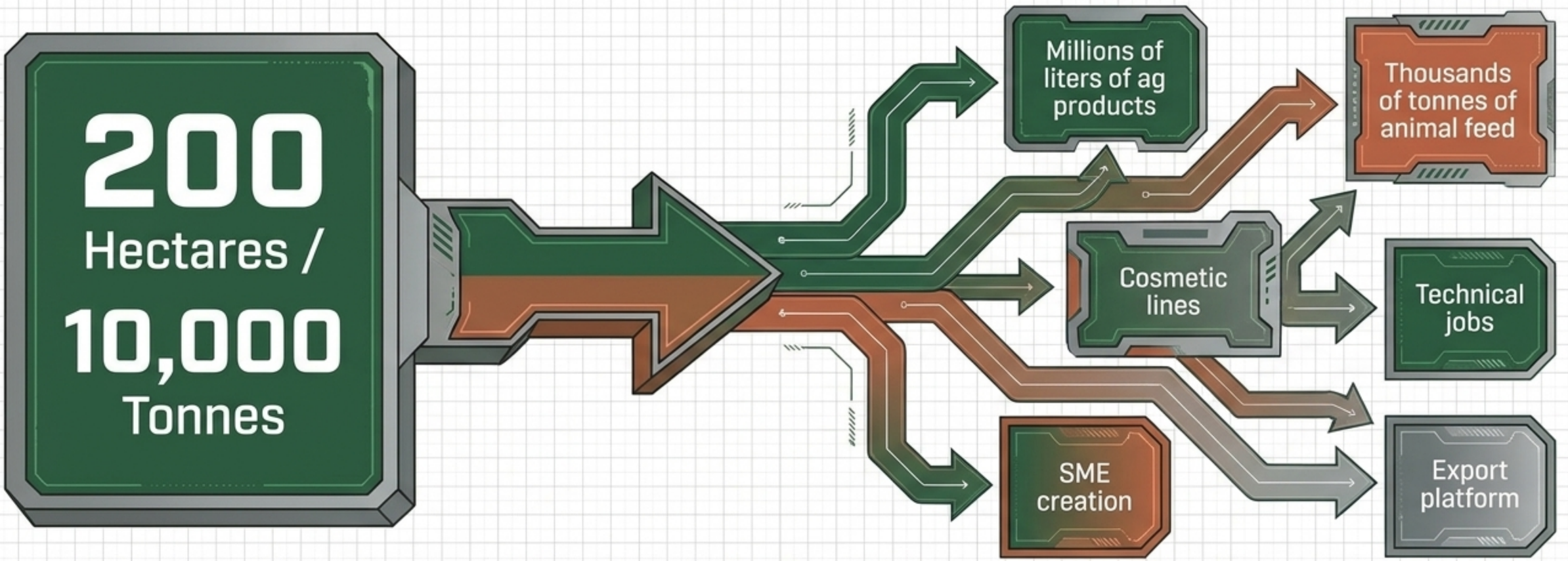
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The Phased Development Roadmap



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Measure Impact by Value Created, Not Just Hectares Planted



The Principle: Grow in Ethiopia. Process in Ethiopia. Manufacture in Ethiopia. Export from Ethiopia.

Call to Action: Proceed to Definition of Selected Sites and the Technical & Commercial Feasibility Phase.

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