Food Value Chains and Sub-sectors that hold a potential for improved competitiveness and investment opportunities along the Lobito Corridor in Zambia

Investor brief for the EU-Zambia Lobito Corridor Business Forum

The agrifood sector in Zambia presents several investment opportunities. Food production has increased over the past two decades, along with the population. Sugarcane, cassava and maize are the top 3 commodities produced. Rising incomes and changing diets are slowly shifting consumption from maize to other starchy foods and to animal-source proteins. Gaps in the supply are met through imports, especially vegetables, fruits and vegetable oils and fats. Despite being a net importer of agrifood products, Zambia holds **several comparative advantages** (e.g. higher yields and their potential gain from improved practices, mechanization and irrigation), which translate into an increasing volume of regional trade. Key challenges to investments are the low level of access to finance for all agrifood players; the currency volatility; and the underdevelopment of infrastructures (electricity and feeder roads). However, the government, together with development financial institutions (DFIs) and the donors are implementing several initiatives to address them. The 8th National Development Plan, along with the Comprehensive Agriculture Transformation Programme and the Vision 2030, represent **incentives to increase investments in the sector.** The EU is implementing programmes to support agri-SMEs (Enterprise Zambia Challenge Fund - EZCF); access to finance (Zambia Agriculture Value Chain Facility with EIB); climate-resilient, nutrition-sensitive, market-integrated smallholder farming (Enhancing Livelihoods and Smallholder Agricultural Markets Project - ELSAM and Sustainable Intensification of Smallholder Farming Systems in Zambia - SIFAZ); green growth & value chain financing (Green Nexus Programme). Several EU member states (Italy, Germany, Sweden, Finland, Ireland, France, Czech Republic) are supporting the sector along the same lines of intervention.

In the Lobito corridor, food production is diversified due to different agro-ecological zones. In North-western and Copperbelt, key crops produced are cassava, beans, millet, maize, rice, groundnuts and pineapples. The bulk of food production is in Central and Southern provinces, where key crops produced are maize, wheat, groundnuts, and horticulture. Production is largely rainfed, except for irrigated large scale farms. Finally, the southern parts of Lusaka province and the Southern province are semi-arid, with key crops being millet, and livestock. **The state of soil health for agriculture in Zambia is a major challenge**, characterized by widespread degradation that limits crop productivity and poses a significant threat to food security and livelihoods, particularly for smallholder farmers. The issue is a complex one, driven by a combination of natural soil characteristics and unsustainable agricultural practices. **Main drivers for increased competitiveness and investment opportunities are the increasing unmet demand at domestic and regional level (especially in Democratic Republic of the Congo/DRC); the potential space for productivity improvement; and the large availability of natural resources, mostly land and water.**

The present analysis provides an overview of agrifood value chains in the corridor, with potential for improved competitiveness to generate investment opportunities. **The selection of the value chains is based, among others, on: market size; demand drivers; key determinants of yield gap and potential gain to reduce it; price comparison**.

The following value chains were identified and analyzed:

Value chain	Potential for improved competitiveness and investment opportunities
Maize	Staple with stable demand; reducing post-harvest loss and increasing commercial transactions would increase farm incomes and support downstream industries.
Soya bean (edible oil, animal feed, food product)	Increasing domestic and regional demand for animal feed and edible oil; processing facilities running below potential; potential for doubling yields.
Horticulture	High value per hectare, strong urban demand in Lusaka and regional demand in Southern and East African markets; increasing demand by mining companies; controlled systems can increase yield and seasonality.
Pineapple	Lower yields compared to DRC and Angola presents potential competitivity gains; potential export expansions to Angola; juice processing factories to reduce post-harvest losses.
Cassava (food product, biofuel)	Drought-tolerant, provides resilience to climate shocks, and processed products can substitute imports and supply industry (starch, flour, chips); breweries are established buyers of cassava inputs; informal export to DRC
Honey/Beekeeping	Low capital at household level, high value addition, and supports reforestation/land restoration objectives
Beef	Strong and growing domestic demand; regional export potential; established commercial players
Goats	High and rising consumption, urban market and cross-border demand; export readiness, with small improvements; large smallholder base (1 mio rural household); low productivity baseline (potential double upside)
Poultry/eggs	Rapid urbanization and protein demand growth create consistent local market; short production cycles and scalable models
Aquaculture (tilapia)	Fast growth in domestic demand and relatively high margins for farmed fish; availability of inland water resources and growing experience with commercial ponds

For each value chain, the **potential impact of investments was assessed on environment** (soil degradation, deforestation, gas emission) **and on social issues** (inclusion of smallholder farmers and youth, empowerment of women, improved diets). The present analysis has identified most potentially sustainable investments in **soya bean (Copperbelt, Lusaka, Central); cassava (North-western and Copperbelt); horticulture, mainly tomato and onion (Northwestern, Copperbelt, Central and Lusaka); and seed multiplication (throughout the corridor).**

Table 1 below shows the likely impact of possible investments for each value chain.

Sustainable investment parameters

	Potential improved Competitiveness	Potential Environmental Impact	Potential Social Impact
Maize HiH	Low	Low	Moderate
Soya bean	High	Low	High
Horticulture	High	Low	High
Pineapple	Low	Low	High
Cassava	High	Low	High
Beekeeping HiH	Moderate	Low	High
Cattle (Beef/Dairy)	High	High	Moderate
Goats	High	Moderate	High
Poultry/Eggs	High	Moderate	High
Aquaculture (Tilapia) HiH	High	Moderate	High

Food and Agriculture Organization of the United Nations

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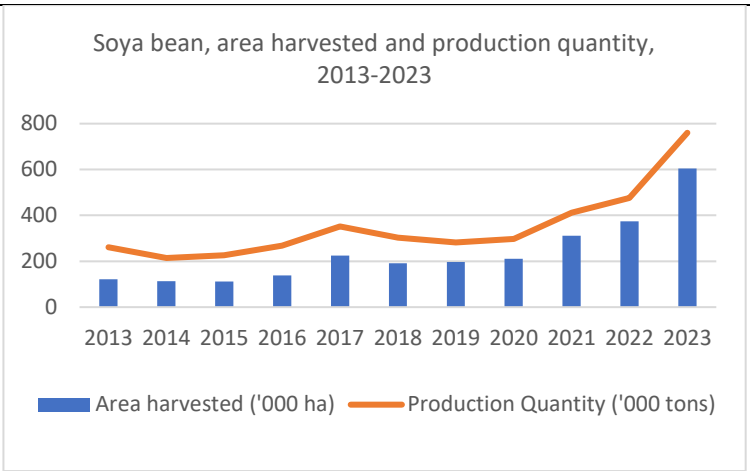
Soya bean, horticulture and cassava can potentially improve their competitiveness, while having a relatively low environmental and high social impact. High levels of improved competitiveness are also likely to happen in the livestock sector, the difference being the more likely potential harm to the environment, if investments are not made within a broader sustainable management of natural resources. Given that the government of Zambia has already prepared plans for the private sector to co-invest in, under the Hand-in-Hand (HiH) initiative, for the maize, honey and aquaculture VCs, the present analysis has a narrower focus on soya bean, horticulture and cassava. An overview of the beef and dairy is also provided, due to its major relevance and the priority support provided by the government to the sector. Finally, key insights are provided on the seeds industry (maize and soya bean), because it also holds potential investment opportunities.

1) Soya bean



- **Smallholders (≈389,000 farmers)** produce nearly **60%** of output.
- **USD 830 million** in value.

Demand drivers:

- **Animal Feed**: demand is rising 5–7% annually.
- **Edible Oil**: potentially rise by one-third in the next decade.
- **Regional Trade**: Exports grew from USD 25 million (2015) to USD 80 million (2023).

Farm Type	Yield (t/ha)
Smallholder (<2 ha)	0.8–1.0
Emergent (2–20 ha)	1.3–1.6
Commercial (>50 ha)	3.0+

National yield gap: ~60% (1.3 vs. 3.0) Main yield loss causes:

- low plant density (30%)
- weak inoculant use (20%)
- weeds (18%)
- soil acidity (17%)
- late planting (15%)

Improved practices and irrigation can double yields and raise incomes (WB)

Profitability

Smallholders: narrow profits (~USD 40–80/ha).

Emergent: ~42% profit margin.

Commercial: ~47% margin

Irrigation: Raises yields 3× with strong financial returns.

Midstream: Logistics and Processing

Aggregation: "First mile" costs high; poor road access cuts farm-gate prices 10–20%.

Storage: Limited; most smallholders sell immediately post-harvest.

Processing: Installed crushing capacity ≈850,000 tons, but utilization 50–70%, constrained by inconsistent supply and energy costs.

Key risks: climate variability, exchange rate swings, policy uncertainty, infrastructure delays.

Future scenarios:

1. Business-as-usual: Yields stagnate; crusher utilization ~55–60%.
2. Productivity growth: Yields ~1.8 t/ha; utilization >75%, cost reduction ~USD 1.5/t.
3. Integrated competitiveness: Productivity + Lobito rail → regional leadership in non-GMO soy supply.

Competitiveness Outlook

Zambia is positioned to **become Southern Africa's leading non-GMO soy supplier** if three levers align:

1. Farm productivity gains (closing the yield gap);
2. Efficient logistics (Lobito rail, storage, aggregation);
3. Stable policy environment (predictable export rules).

If realized, Zambia could capture **larger DRC, Angola, and Atlantic export markets**, diversify its economy beyond mining, and build resilient, inclusive agricultural growth

Social Impact

- Significant opportunities for improving the livelihoods of women and youth (majority of smallholder producers).
- Women control nearly half of all sales decisions and income.
- Youth increasingly engaged (leadership roles in cooperatives and digital platforms for marketing)
- High-protein crop (dietary diversity and improved household nutrition)

Environmental Impact

Soya enriches the soil through nitrogen fixation and supports drought-tolerant and short-cycle varieties suitable for smallholders. Its inclusion in crop rotation systems enhances resilience and maintains soil fertility

Investment Opportunities

Seed multiplication, oilseed crushing plants, aggregation & storage, blended finance to scale smallholders

Ongoing initiatives in support of the VC.

GRZ:

- Comprehensive Agriculture Transformation Support Programme (CATSP / NAIP II)
- Eighth National Development Plan (8NDP)
- National Agriculture Mechanisation Strategy (NAMS, 2024-2028)
- Hand-in-Hand (with FAO)

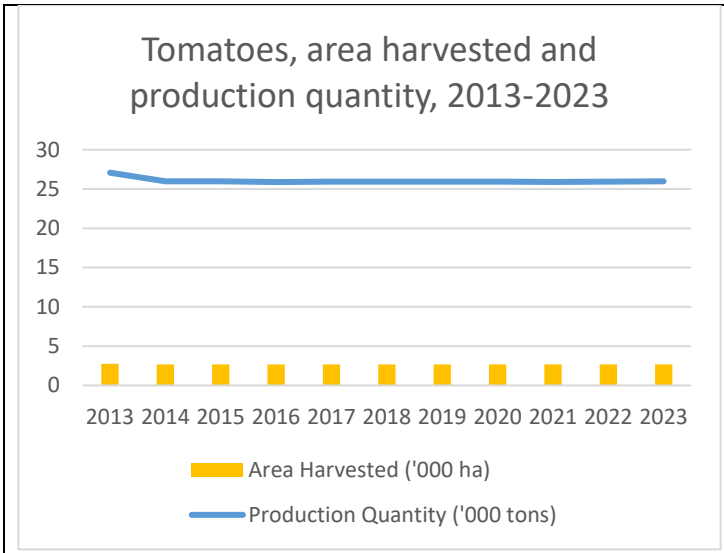
WB: Zambia Growth Opportunities Program (ZAMGRO), Zambia Agriculture Transformation Programme (ZATP II)

WFP: warehouse and nutrition-sensitive programs

Examples of investment in the Value Chain

Good Nature Agro; Farm Feeds; Novatek; Seba Food-260 Brand

2) Tomato and Onions



Seasonality & losses: Prices often **triple between harvest and lean months**; **post-harvest losses** reach ~30% (tomato) and 20% (onion), largely due to poor handling, packaging, and cooling.

Imports: Zambia imports tomato paste and onions during off-seasons, showing domestic processing and storage gaps.

The **competitiveness frontier** depends more on **productivity, logistics, and processing efficiency** than area expansion

Demand and macro-drivers

Urbanization and dietary change

Urban population growth (+3%/yr) adds annual demand of 6,000–7,000 t tomato and 3,500 t onion.

Currency and import parity

Kwacha depreciation (~45% since 2020) improved export competitiveness but raised input costs.

Imported tomato paste costs >USD 1,000/t CIF, giving local processors room to compete if supply stabilizes.

South African onions fill seasonal gaps; better curing and cold storage could help Zambia reach import parity.

Yields

System	Tomato (t/ha)	Onion (t/ha)
Smallholder (rainfed)	12-15	8-10
Smallholder (irrigated)	20	15
Commercial	35-50	20-27
Regional benchmark (Kenya. SA)	38	25
Research potential	60	40

Determinants:

- Hybrid seed access & adaptation (35%)
- Water/fertigation management (25%)
- Pests & diseases (18%)
- Labor-intensive practices (12%)
- Soil fertility & pH (10%)

Empirical results:

World Bank IDSP (2025): Tomato yields doubled (10→20 t/ha), onion

	+50% (10→15 t/ha); margins +USD 4,300/ha and +USD 3,170/ha.

Competitiveness Outlook: Cost Benchmark (USD)

Product	Zambia CIF Lobito	Competitor Cost	Status
Tomato paste (30° Brix)	980–1,080/t	Portugal 1,000–1,150/t	Competitive
Dried onion flakes	1,800–1,980/t	India 1,900–2,100/t	Near parity
Fresh cured onion	0.53–0.68/kg	S. Africa 0.55–0.70/kg	Competitive
Fresh tomato (Grade 1)	0.43–0.63/kg	Tanzania 0.40–0.60/kg	Competitive

Achieving competitive parity requires:

1. Productivity growth (hybrids, fertigation, IPM, soil management).
2. Post-harvest efficiency (crates, cold rooms, aggregation).
3. Stable processing investment (to reduce import dependence).
4. Efficient logistics via Lobito Corridor (cut costs by 25–30%).

Social Impact

Women make up 60–80% of vegetable producers and maintain control over pricing and direct market access, particularly in local vegetable markets. Youth are increasingly drawn to the sector due to its short production cycles, fast returns, and flexibility, especially through rural-urban trade and digital platforms.

Environmental Impact

Horticulture offers flexibility through short production cycles and diverse crop options, making it adaptable to variable weather patterns. Need for water-efficient systems and small-scale innovations

Investment Opportunities

Cold chain; Retail chain and supermarkets; mine catering.

Ongoing initiatives in support of the VC.

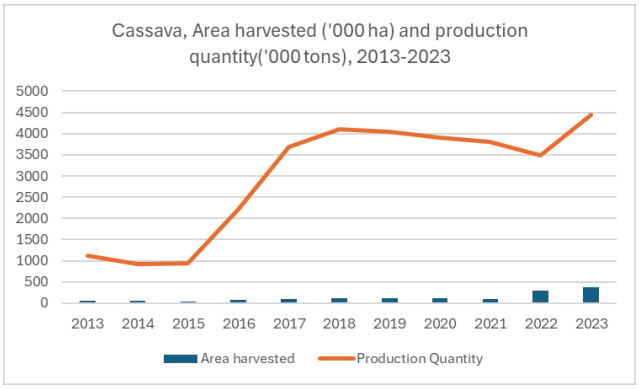
GRZ: Food Reserve Act; Agricultural Marketing Bill; CATSP; FISP

EU: Zambia Enterprise Challenge Fund II

Examples of investment in the VC

Agriserve Agri Ltd; Amatheon Agri

3) Cassava



~4m tons/year, only 5**% (~210,000 t)** enters formal markets:

- **Breweries, starch mills, animal feed, ethanol** → just over **300,000 t/year**.
- **Artisanal processors & feed flour producers** → add ~20,000 t.
- **Total formal demand:** ~320,000 t, against a **current gap of ~680,000 t** and **a projected 1,000,000 t demand by 2030**.

Industrial demand expansion:

- **Zambia Breweries:** integrating cassava grits into beer; each 1% substitution displaces 400 t of maize—targeting **20,000 t of cassava by 2027**.
- **Flour and starch industries:** potential to **replace USD 50 million in imports** (wheat flour, corn starch, glucose syrup).
- **Feed and ethanol:** rising demand as diversification deepens.

The **Lobito Corridor rail concession** (USD 0.06/tn-km vs USD 0.105 by road) will lower **Atlantic freight by USD 20–25/t**, improving export viability for cassava flour, starch, and ethanol.

Production, productivity and market trends

Actor	Key Facts / Challenges
Input suppliers	<50 formal seed nurseries; only 18% of farmers use virus-free planting material
Smallholder Farms	~530,000 households; avg. 0.5 ha plots; 40% market surplus; yields 7 t/ha; farm-gate ≈ USD 45/t
Village Processors	6,000–8,000 chippers/dryers; ~15,000 t chips/year; inconsistent moisture and quality.
Traders and bulking agents	~300 itinerant traders; offer pre-financing at 8–10%/month; district hubs pay ~USD 60/t.
Aggregation hubs (planned)	5 centers (20,000 t capacity each) with raised racks, moisture meters, and HCN testing; warehouse loan rates expected to drop from 26% → 16%.
Industrial Processors	19 active plants: breweries (40,000 t/yr, 65% capacity), starch/flour mills (60,000 t/yr, 55%), feed units (25,000 t/yr, 35%), ethanol pilot. +300,000 t new capacity by 2027.

Average smallholder yield: 6–7 t/ha.

Research-station yield: 35–40 t/ha.

Yield gap: ~30 t/ha.

Bridging even half of this gap via: improved varieties (virus-free planting material),higher planting density, fertilization and lime application, better post-harvest handling **could release 500,000 t of additional marketable roots and reduce processing costs by ~25%.**

Farm-gate chip price rose from ZMK 7.89/kg → 8.70/kg between Dec 2024 and Jan 2025 **(+10%).**

Reflects tight supply, growing industrial demand, and rising input costs.

Competitiveness Outlook

Zambia's cassava sector combines **strong agro-ecological potential** with **rapidly growing industrial demand** and strategic corridor access.

Opportunities:

- Close the 30 t/ha yield gap with improved inputs and agronomy.
- Develop aggregation hubs to reduce post-harvest losses and finance costs.
- Scale up contract farming and industrial partnerships (beer, starch, feed, ethanol).
- Leverage Lobito Corridor logistics for export competitiveness.

If current plans materialize:

- Formal **market volume** could **double by 2030**,
- Unit processing **costs could fall 25–30%,**
- **Industrial offtake could exceed 1 million tons/year**,

Social Impact

Drought-tolerance and year-round harvesting strengthen smallholder incomes; demonstrated inclusive out-grower models; 50% women active in production; critical source of calories for the poorest households

Environmental Impact

Cassava thrives in dry and low-fertility soils, providing a dependable crop under climate stress conditions

Investment Opportunities

Industrial linkages (breweries); starch/ethanol processing facilities

Ongoing initiatives in support of the VC.

GRZ: Cassava Sector Development Strategy (2020–2024): USD 16.3 million (double smallholder yields, expand improved planting material, establish agribusiness hubs, and improve market information system.

Examples of investment in the Value Chain

Sunbird Energy; Premiercon; Maposa Ethanol Plant.

4) Beef and Dairy: an overview of investment opportunities and challenges

Beef		Dairy	
National herd size	~5.1 million (2023)	Total milk production	504,323 tons (2023)
Provincial distribution	Southern ≈ 36 %, Western ≈ 21 %, Central ≈ 14 %, Eastern ≈ 10 %, rest (Northern, Muchinga, NW, Copperbelt, Lusaka) ≈ 19 %. Nw <3%.	Provincial distribution	Central (≈ 30 %), Southern (≈ 25 %), Lusaka (≈ 15 %); minor output in NW (< 5 %)
Average annual growth	~2 – 3 % per year; national herd grew from ~4.0 M → 5.1 M head	Growth (2010-2013)	Output roughly **doubled**; driven by smallholder participation and private processors
Ownership pattern	> 90 % of cattle kept by smallholders; commercial sector minor share	Commercial vs Traditional	~25 % commercial / 75 % smallholder
Beef offtake rate	6 – 8 % per year (low vs. regional avg > 10 %)	Average milk yield	5 – 8 L/day per cow (traditional); 12 – 15 L/day (exotic crosses)
Breed composition	~80 % indigenous (Barotse, Angoni, Tonga); < 20 % exotic × crossbreeds	Average herd size	4 – 6 milking cows (smallholders)
Key constraints	Tick-borne diseases (ECF, CBPP), feed shortages (dry-season), weak market access, low genetics	Key constraints	Feed cost, poor cold-chain, seasonal feed variability, limited AI/genetics, weak extension

Opportunities & competitiveness

Improvement in productivity (better genetics, feed, health) could raise outputs, reduce unit costs, and make beef more competitive regionally.

Export potential into regional markets (e.g., neighbouring countries) exists, especially if logistical/processing bottlenecks are addressed.

Competitiveness gain: will depend on lowering cost of production, improving quality, ensuring efficient channels, and addressing infrastructure gaps.

Key challenges:

Low productivity: Indigenous breeds grow slowly; limited feedlots

Infrastructure & logistics: Poor roads, long distances to markets/abattoirs, inadequate slaughter/processing capacity.

Animal health: Disease control and extension services are weak

limited processing/export

Soil depletion: In Southern and Central, droughts (2023-2024) reduced grazing lands, with herds moving northward (potential risk of deforestation).

5) A cross-cutting industry: the seed sector (maize, soya beans)

Regional export leader: in 2023 it exported ≈38,391 t of maize seed (HS 100510) worth US$53.4m, mainly to Tanzania, Kenya, Mozambique, Uganda, Malawi, Angola

Angola alone imported ~259 t of maize seed from Zambia in 2023, confirming west-facing opportunities alongside the DRC and Malawi corridors. **DRC-Katanga** opportunities (currently smaller in official stats but significant informal demand).

Opportunities

- Early-generation & foundation seed capacity (reduce bottlenecks at ZARI/partners; irrigation for breeder/EGS fields). Donor and GoZ programs are already co-financing resilience and seed-system upgrades; scope to crowd-in private capital.
- Processing & logistics: decentralized seed drying/cleaning/packaging lines and satellite certification hubs near production belts to cut losses and turnaround time.
- Export-oriented scale: leverage COMESA rules and Zambia's proven inspection regime to grow certified exports; align varieties to top buying markets' agro-ecologies.
- Corporate/greenfield: follow Bayer Kabwe signal—expand high-throughput production for regional supply (SSA demand remains deep).
- Inclusive outgrower networks: finance women- and youth-led seed enterprises and co-ops (clean seed for legumes/soy/wheat) with technical and market linkages. (Multiple projects now target women/youth in Zambia's seed/agribusiness ecosystem.)

Challenges & constraints

- Infrastructure & certification cadence: need more irrigated, titled land for seed farms
- FX & input volatility: exchange-rate swings and fertilizer shocks reshape cost curves; resilience investments (irrigation, storage, diversified product lines) are key.
- Feeder roads: weak first-mile logistics in some provinces still raise costs and risks for outgrower-based multiplication.

"This publication was funded/co-funded by the European Union. Its contents are the sole responsibility of the author and do not necessarily reflect the views of the European Union