Food Systems Analysis in 14 counties in Kenya

Empowering youth-led agri-enterprises through green finance - Insights from the Green Finance for Youth Employment (GFYE) Project.

28th May 2026

THE OPPORTUNITY AT SCALE

Why Kenya, why agri-food, why now?

Kenya's demographic and structural realities point to agri-food as the most promising arena for youth employment. Demand for agri-food products already exceeds domestic supply, opening entry points for young people — but rural youth remain the most financially excluded segment of the country.

58M

Kenya's population

75%

Youth aged 18-35

22.5%

Agriculture's share of GDP

70%

Of rural people employed in agriculture

38.6%

Agriculture's share of total employment

45.5%

Of financially excluded Kenyans are rural youth

Sources: KNBS, FAO, FinAccess 2024.

WHAT WE SET OUT TO DO

The Green Finance for Youth Employment project

Funded by Finland's Ministry for Foreign Affairs through IFAD; jointly implemented by FSD Kenya, AGRA, Cordaid and the National Treasury. The project targets 14 priority counties.

01 Identify

Scalable green business models

Find profitable, climate-positive agri-enterprise models and design financial products tailored to young women and men.

02 Build

Capacity on both sides of the market

Equip enterprises and supply-side actors — rural SACCOs and microfinance banks — to deploy green finance products.

03 De-risk

Lending through pilot guarantee

Pilot the Youth Green Loan Product dubbed 'Youth Incentive Fund' implemented by the National Treasury (RKFINFA PMU).

HOW WE APPROACHED THE PROBLEM

A systems lens on five high-growth agri-food sectors

We used a systems lens to analyse priority market systems with the potential to create jobs for youth, women and persons with disabilities in Meru, Tharaka Nithi, Embu, Kirinyaga, Nyeri, Machakos, Nakuru, Kisii, Siaya, Nandi, Kakamega, Busia, Bungoma and Trans Nzoia .

1,210
Agri-enterprises surveyed

5
High-growth sectors covered

88
Key informant interviews

28
Focus group discussions

The five value chains

Poultry

Dairy

Horticulture

Apiculture

Fisheries & Aquaculture

PART 01

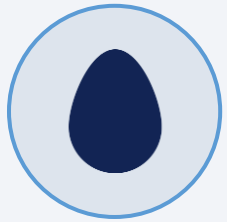
What we found.

Six findings reshape how we think about credit, capacity and inclusion in Kenya's Agri-food systems.

FINDING 1

Demand exceeds supply across priority agri-food systems

Imports currently fill these shortfalls — and they offer immediate entry points for youth-led enterprises.



ANNUAL DEFICIT

5B

eggs

56% gap in national supply

ANNUAL DEFICIT

6.5–7.5B

litres of milk

ANNUAL DEFICIT

340,000

MT — fisheries & aquaculture

ANNUAL DEFICIT

5,500

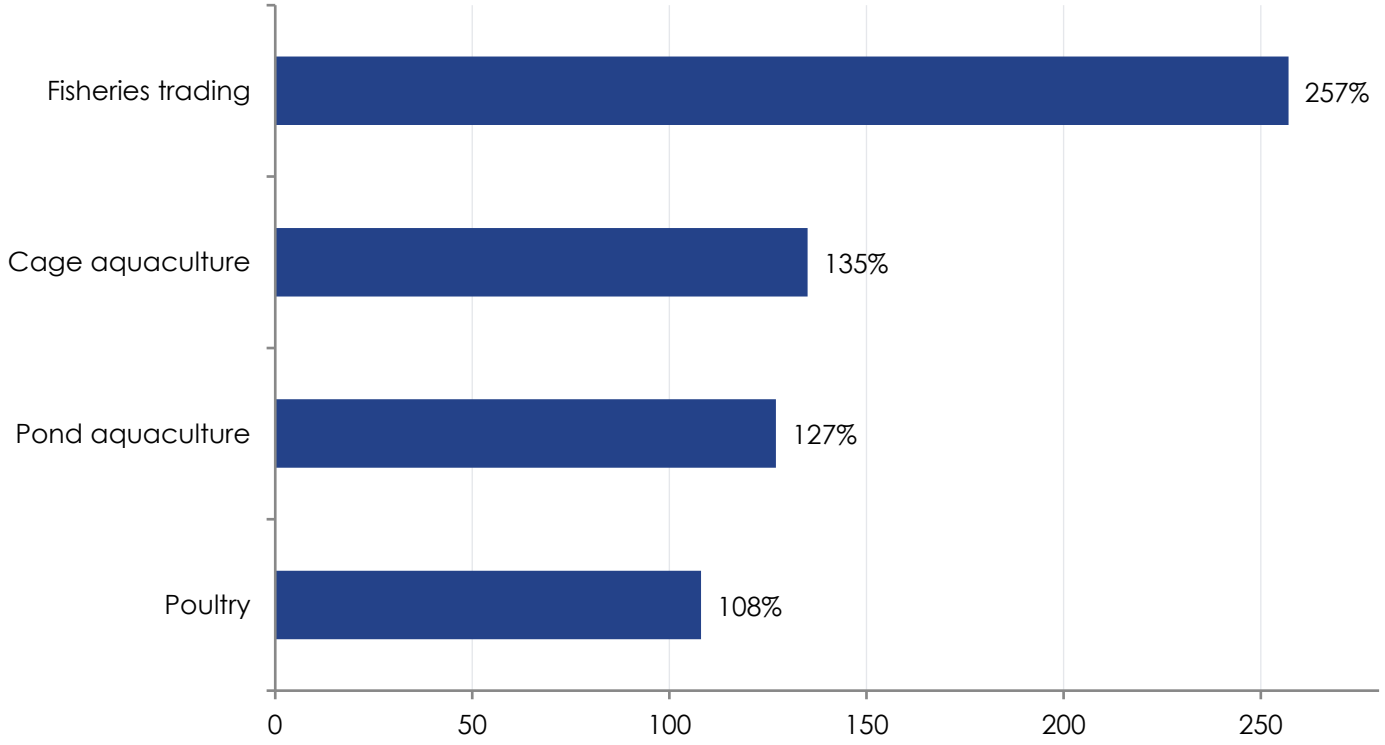
MT — honey

These are not market failures — they are unmet demand. Each gap is a business case marred by poor demand/product fits .

FINDING 02

Agri-enterprises are profitable, but financing doesn't match production cycles

Returns on investment across selected sectors



THE CASH FLOW MISMATCH

Profitable enterprises still can't borrow.

Returns reach 257% within a 16-month cycle in fisheries trading, yet financing on offer rarely matches enterprise production cycles. Monthly repayments collide with biannual harvests; grace periods are too short for poultry cycles; aquaculture grow-out windows are misread as default risk.

FINDING 03

Feed is the cost barrier, green solutions exist

THE BARRIER

70%

of livestock and fisheries production costs

Feed costs are the single largest production expense, capping profitability and locking enterprises out of expansion.

THE UNLOCK

Untapped green technologies & innovations

- Solar-powered incubators for poultry
- Solar pumps for horticulture irrigation
- Solar milk chillers for dairy aggregation
- Modern Langstroth hives for apiculture
- Black Soldier Fly protein for circular feed
- E-bikes to improve transport in cold chains

FINDING 04

Case in point: Black Soldier Fly protein + solar heating

Replacing conventional poultry feed with Black Soldier Fly (BSF) protein and adding solar heaters cuts monthly costs by 42% — and more than doubles return on investment ***over a 16-month*** *cycle .*

BEFORE

Conventional feeding + grid power

108%

AFTER

BSF protein + solar heating

260%

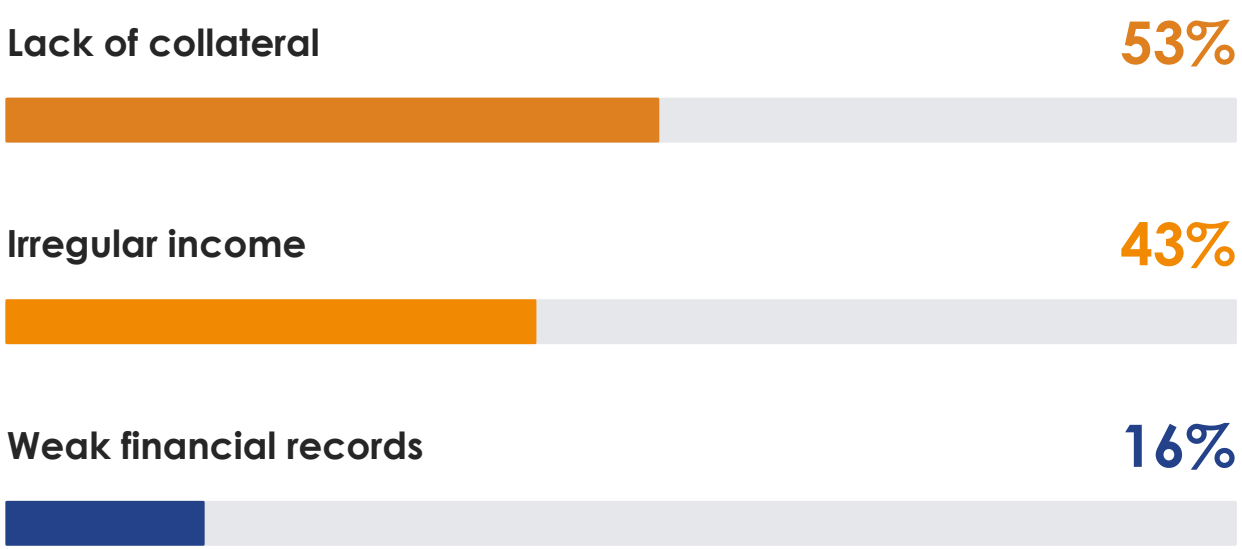
Source: GFYE enterprise survey (n=1,210); poultry sub-sample.

FINDING 05

Exclusion is significant — and uneven

Three financial barriers, one regulatory drag, and a near-total absence of persons with disabilities across the sectors we sampled.

FINANCIAL BARRIERS CITED



PERSONS WITH DISABILITIES

0%

representation across all sampled sectors.

70% of PwDs surveyed cite workplaces that do not accommodate their needs — an exclusion compounded by financial, infrastructural and attitudinal barriers.

Compounding factors: *cross-county double taxation erodes producer margins; TVET curricula don't align with industry.*

FINDING 06

Capacity gaps — and the models that work

Training systems and industry needs don't align — but two operational models already work and are ready to scale.

THE GAP

Skills don't match the industry

- **Some courses** offered by training institutions do not align with industry skills requirements.
- **No clear** specialisation exists in Kenya for the repair and maintenance of solar-powered technologies.

WHAT WORKS

Two operational models — proven, ready to scale

01 **Technical Service Provider (TSP)**

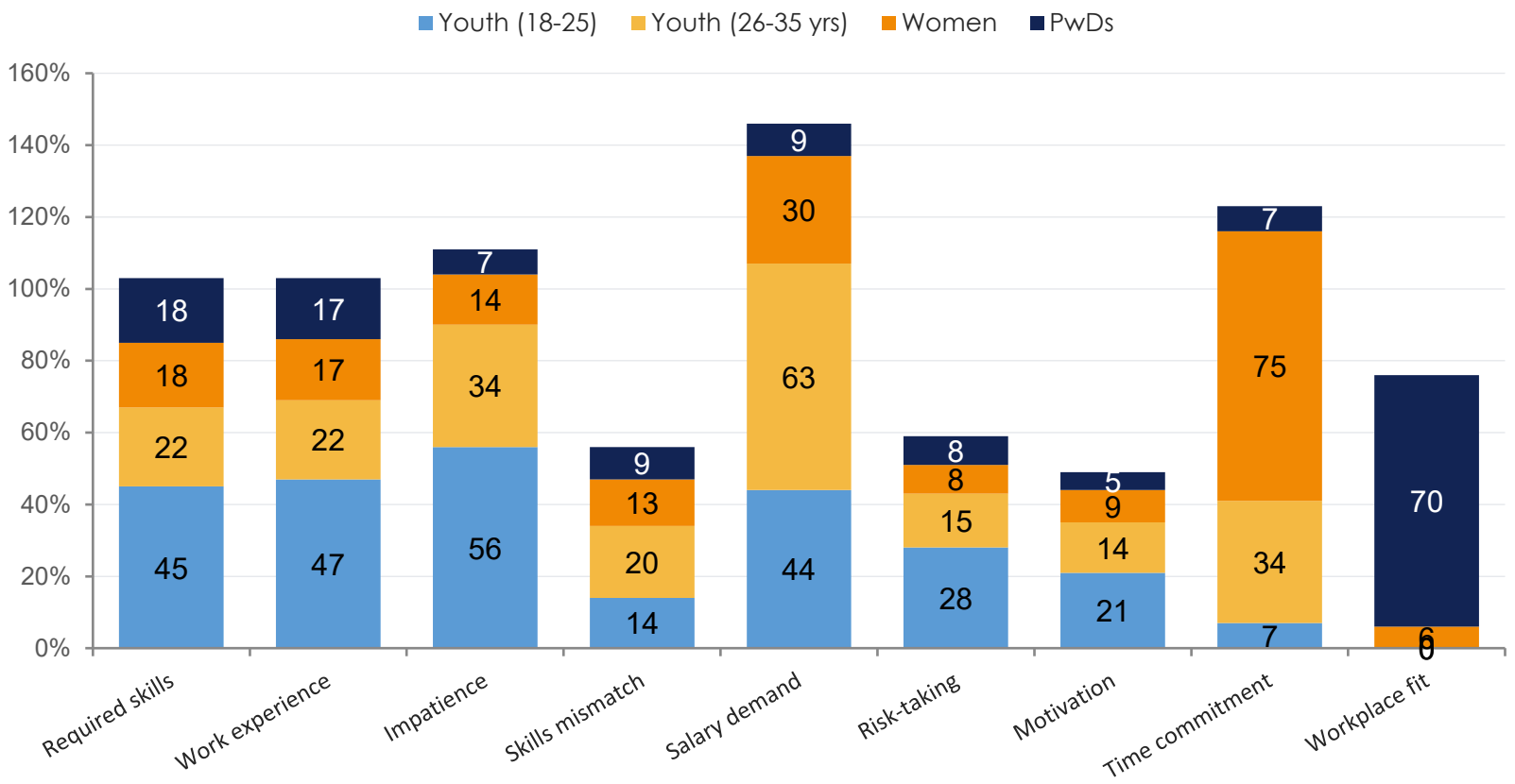
Specialist providers embedded with enterprises to transfer technical know-how on the ground.

02 **Mentor–Mentee**

Experienced practitioners pair with new entrants — viable for fee-for-service sustainability.

Challenges in employing youth, women and PwDs

Agri-enterprises identify distinct challenges by group — and the implications point to training, product design and workplace adjustments.



IMPLICATIONS

- ✓ Continued alignment agri-training courses with industry needs for young people.
- ✓ Younger youth (18-25) need quick-turn opportunities — services, short-cycle crops, sales and digital roles.
- ✓ Older youth (26-35) are entrepreneurs and pull agents — natural employers for lower-cadre youth.
- ✓ Flexible working arrangements matter for women.
- ✓ Less energy-intensive roles for PwDs — digital marketing, accounting, advisory.

IN SUMMARY

Take Aways

01 Context	02 Demand	03 Profitability	04 Exclusion	05 Six levers
58M people · 75% youth	5B egg shortfall	108–257% ROI	53% lack collateral	Offtake · Alt data
22.5% GDP from agriculture	6.5–7.5B L milk gap	Feed = 70% of costs	43% irregular income	Cash-flow · Green tech
45.5% rural youth excluded	340k MT fish · 5,500 MT honey	BSF unlocks 260% ROI	0% PwD representation	Skills · Regulation

Demand is real. Profitability is proven. The major barrier is product design, not borrower risk.

CONCLUSIONS AND RECOMMENDATIONS

Six strategic recommendations

What GFYE project partners should prioritise?

01 Offtake agreements with anchor buyers

Use formal agreements with cooperatives, processors and supermarket chains as a credible substitute for land-title collateral.

02 Alternative data in underwriting

Integrate alternative data such as M-PESA, till and cooperative records into credit assessment. Cash-flow capacity becomes the lending decision.

03 Seasonal cash-flow alignment

Grace periods of 6–12 months for poultry, 7–12 for aquaculture, biannual for apiculture — bundled with index-based insurance.

04 Feed systems and green tech

Hub-based Black Soldier Fly production with KALRO. Asset finance for solar chillers, freezers and Langstroth hives.

05 Skills models and TVET reform

Scale Technical Service Provider and mentor-mentee models. Add solar appliance modules to TVET curricula via CDACC and NITA.

06 Regulatory reform

Differentiated risk weightings for green and youth lending; cross-county tax harmonisation; branch-level green underwriting.

Green Suites Palm Suite,
Riverside, Riverside Drive,
P.O. Box 11353, 00100,
Nairobi, Kenya.

www.fsdkenya.org
FSD Kenya
@FSDKe