



Ghana's FISH Circular Economy Roadmap (2025-2030)


A practical plan to waste less fish, use less firewood, recover valuable by-products, and protect incomes for the women-led processing and trading businesses that keep fish moving to Ghanaian households.


STARTING POINT IN THE MAPPED SYSTEM

Fish supplies about 60% of Ghana's animal protein and supports roughly three million people. The issue is that too much value is lost after the catch, especially when processing is smoky, fuel-hungry and leaves usable material behind.

 Processing is the main hotspot: 19,454 kg of raw fish are handled per cycle, yielding 14,772kg of edible product, but about 4,864 kg are discarded as heads, guts, and bones. Spoilage is tiny - 55.5 kg - so the bigger problem is useful material being thrown away.

 Smoking burns more wood than fish by weight: about 1,313 kg of fuelwood for every 1,000 kg of fish, or 1.31 kg wood for 1 kg fish. That means higher costs, increased smoke exposure, increased emissions, and pressure on wood supplies.

 Trading is fast but still leaks value: traders sell 56,624 kg out of 57,529 kg per cycle, yet around 442 kg is sold at a lower price because quality drops before sale.

 The post-harvest economy is women-led: production is 95.5% male, while processing is 90.5% female and trading is 97% female. Most businesses are very small, often owner- or family-run, so solutions must be shared, affordable and easy to use.

KEY METRICS AT A GLANCE

Metric	Baseline	Year 4 / 2030 target
By-products recovered	~4,864 kg/cycle; 0% reported feed use	>=60% in participating clusters
Fuelwood intensity	1.31 kg wood per kg fish	<=0.80 kg/kg in upgraded clusters
Quality discounting	~442 kg/cycle; 0.8% of traded fish	<=0.3% in targeted markets
Inclusive beneficiaries	90.5% processors and 97% traders are women	>=70% women; >=30% youth
Circular ventures	Limited formal recovery/cooling ventures	25 women-led + 10 youth-led

PRACTICAL PILOTS (EVIDENCE FOR SCALE)

Pilot	Purpose	Proof point
Cleaner smoking hubs	Introduce efficient kilns, safer layouts, ventilation, batch control and wood-use tracking for processors.	Wood/fish ratio falls; smoke exposure and costs reduce.
Fish by-product recovery	Collect heads, guts, bones and scales for fishmeal, compost/fertiliser, oil or feed-ingredient trials.	Kg recovered, product tested and buyers/users confirmed.
Solar cold-chain service	Shared ice, cold rooms, coolers and cold transport around landing, processing and market points.	Discounted sales fall; full-value sales rise.
Women/youth enterprise incubation	Demo days, microfinance links, shared tools, costing, hygiene and simple business records.	New ventures operating and earning from recovery/cooling services.
Trader quality logbooks	Simple records for fish bought, sold, discounted, spoiled and stored cold.	Value loss becomes visible and easier to manage.

TIMELINE, STEP BY STEP

Foundation and demonstration: Set up delivery platforms in Bosomtwe, Atwima Nwabiagya North, Kumasi and Asuogyaman; confirm site baselines; launch cleaner smoking, by-product recovery and solar cold-chain pilots; start visual, local-language training.



Partnerships and consolidation: Expand the best pilots to more processors and traders; connect recovered by-products to farms, feed users and buyers; activate microcredit, group savings and green finance routes; embed Fisheries Commission and district follow-up.

2025-2026



Scaling and integration: Replicate proven models, prepare bankable investment cases, use district/regional scorecards, and build technical partnerships for product testing, standards and wider replication toward the 2030 vision.

2027-2028



WHAT CHANGES BY YEAR 4, TOWARDS 2030



By-products stop being treated as rubbish. Heads, bones, guts and scales are separated, collected and tested for fishmeal, compost, organic fertiliser, fish oil, pet/feed ingredients and other useful products.



Smoking becomes cleaner and cheaper. Efficient kilns, better batch control, improved ventilation and shared processing hubs reduce the amount of wood needed and make workplaces safer.



Cold handling protects income. Solar ice, shared cold rooms, coolers, reusable crates and simple trader logs help more fish stay fresh enough to sell at full value.



Women and young people are not just beneficiaries; they become operators of recovery, cooling, handling, repair and service businesses.

FINANCING AND SCALING



The roadmap does not give a full bill of quantities, so the first financing job is to price the pilots locally and turn them into bankable packages.

Priority cost buckets: efficient kilns and shared processing spaces; by-product collection, drying, grinding and hygiene tools; solar cold rooms, ice/coolers, crates and transport; training, business coaching, safety and simple MRV; working capital for women traders and youth service operators.

Scale-up should blend grants for shared assets, low-interest green finance, microcredit/VSLA or susu for small operators, and buyer or public-private agreements that reduce market risk.

HOW PROGRESS STAYS VISIBLE

- Keep one honest dashboard: raw fish in, edible fish out, by-products recovered, kg of wood used, fish sold at full and reduced price, cold-chain use, women/youth beneficiaries and new product sales.
- Share results back with processors and traders. Circularity should feel practical: lower fuel bills, cleaner work, fewer price cuts, new income from waste and better food quality for consumers.

STRENGTHS TO BUILD ON

- Processors already move fish quickly enough to keep spoilage low; traders already sell almost everything they buy. The next step is to recover by-products and protect value, not to replace what already works.
- Existing support actors - districts, Fisheries Commission, MoFAD, technical partners and market groups - can turn pilots into routine services if roles and data are kept simple.

WHAT SUCCESS SHOULD FEEL LIKE

The roadmap succeeds when a processor uses less wood and breathes less smoke, when heads and bones that once attracted flies become saleable inputs, when a trader can keep fish cold long enough to avoid desperate price cuts, and when young people can earn from recovery, cooling, repair and logistics services. The goal is not a perfect system on paper; it is a fish chain where food, money and effort are not quietly lost after the catch.