

From Pump to Pot: Ethanol for Clean Cooking

Lessons from East Africa for India

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Core thesis: **India has won the hard battle on ethanol for transport.** The next frontier is ethanol for the kitchen — and East Africa has spent a decade learning how to make it work.





India's 2026 Wake-Up Call

The Strait of Hormuz shock exposed how exposed India's kitchen is — not just its cars.

55–60%

of India's LPG demand is
imported

~90%

of those imports — ~21.5 MT
in 2025 — sourced from the
Middle East

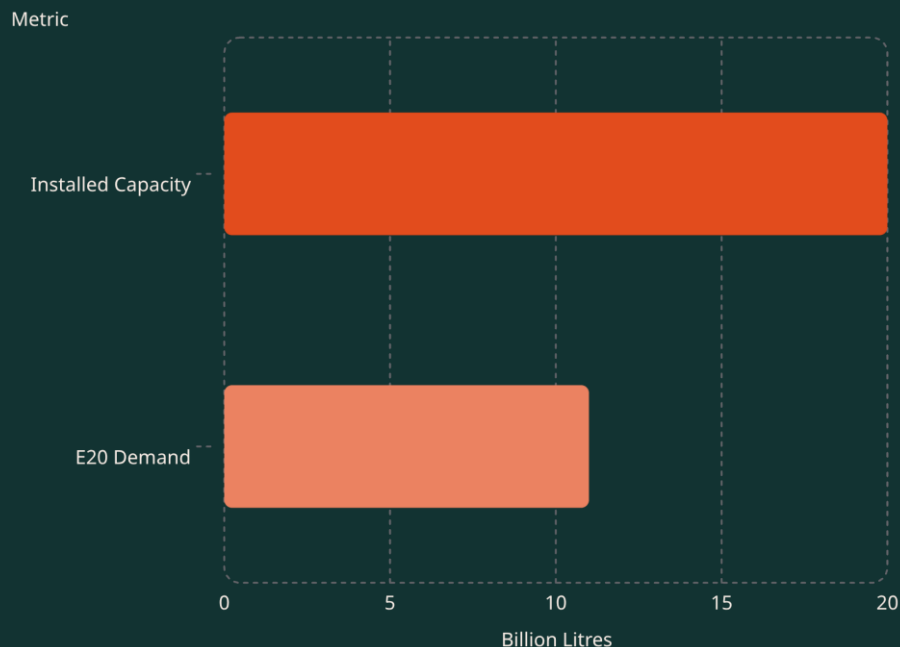
Hormuz 2026

Disruption delayed large volumes of India-bound LPG at sea

Takeaway: Import-dependent cooking fuel is not an energy choice — it is a strategic vulnerability.

India's Paradox: An Ethanol Champion Sitting on a Surplus

India is the world's third-largest producer and consumer of ethanol — yet its distilleries stand largely idle.



Key Milestones

- E20 achieved -mid-2025 — five years ahead of schedule
- From April 2026, all petrol is E20 at RON 95
- Distilleries running at just 25–30% utilisation — a multi-year surplus

👍 **That idle, locally produced capacity needs a new domestic home. The kitchen is the answer.**

The New Frontier: The Kitchen

Transport ethanol and cooking ethanol are the same molecule — different mission.



2.1 Billion People

Still cook on dirty fuels globally. Clean cooking is the single biggest household-health and forest-protection lever.



PMUY Under Pressure

India's LPG subsidy model is fiscally heavy and import-exposed — structurally vulnerable to Hormuz-style shocks.



Natural Outlet

Ethanol cooking complements LPG rather than replacing it — and is the ideal domestic market for surplus ethanol.



How East Africa Does It: Policy & Local Production

Smart, low-cost policy plus local fuel beats subsidy and imports every time.

Policy Levers

- Uganda's National Integrated Clean Cooking Strategy – target -50% clean-cooking access
- VAT waived on bioethanol; import-duty waiver on knocked-down stoves and parts
- Stove standards: UNBS / ISO 19867-1
- Kenya's draft Energy (Biofuels) Regulations 2025

Bukona Agro Processors

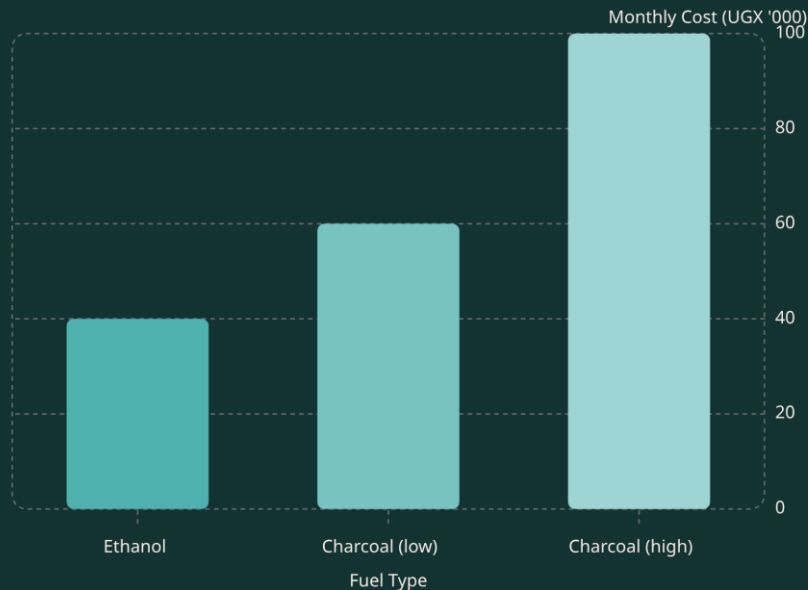
- 40,000 litres per day multi-feedstock distillery (cassava, maize, molasses)
- 3,500+ contracted smallholder farmers
- UNBS-certified spirit, denatured for cooking



Imported fuel is a Hormuz waiting to happen.
Cassava does not pass through a strait.

Affordability & the Canister Seal Innovation

Affordability is the whole game: solve the upfront cost, monetise the recurring revenue – and stop the fuel evaporating.



Making It Affordable

- Starter pack -UGX 240,000, falling to -UGX 144,000 after subsidy
- Financing via SACCOs, employer payroll deduction, deposit-plus-installment
- Ethanol 33–60% cheaper to run than charcoal

✓ **Canister silicon seal cover (Farmerco field test, May 2026):** Cut evaporation from 1.4% to 0.3% – a 78% reduction. Cost per session fell from -UGX 484 to UGX 433. Early field results; controlled testing in progress.

Reaching the Last Mile

People don't buy a fuel they don't trust. You sell trust, then fuel – then you keep them.

1

Demand Activation

Live cooking demos, women-led sales, SACCO & VSLA mobilisation, referral incentives, safety myth-busting

2

Routes to Market

Commission agents, refill points, employer/payroll channels, boda last-mile delivery, digital backbone via PaygOps (dMRV) and mobile money

3

After-Sales

Point-of-sale training, 2-year warranty, call-centre logging, 30- and 90-day follow-up, return-and-refill containers

Women are both the primary customers and the salesforce.



Financing the Transition: Who Pays

No single source funds clean cooking – you stack it.

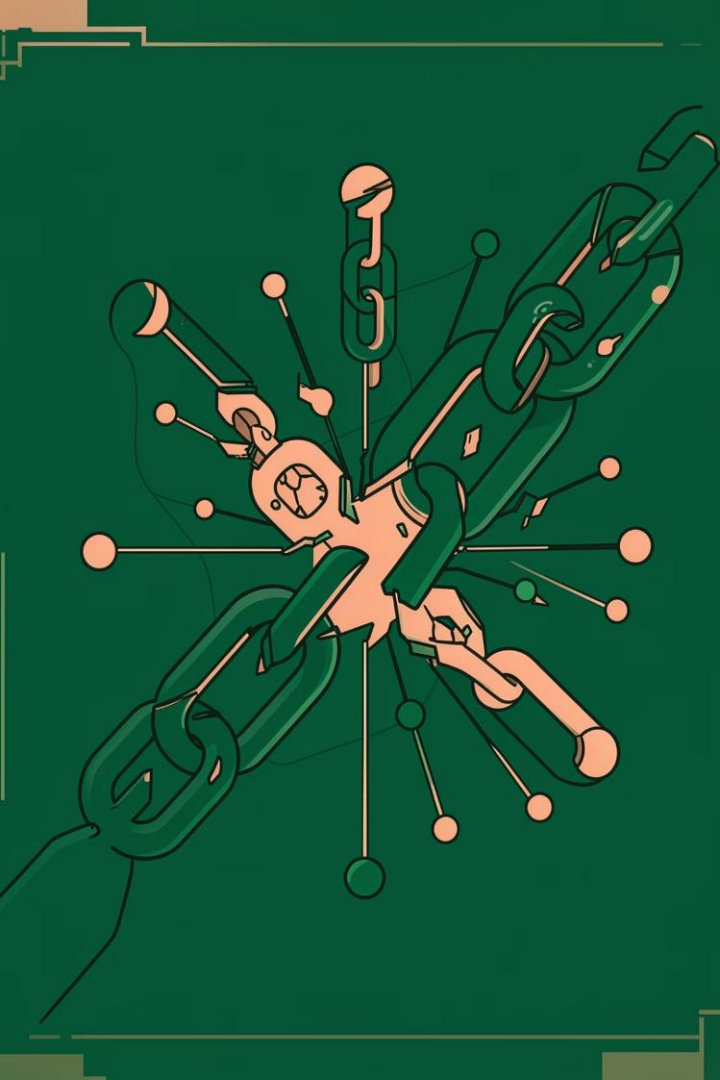


The Scale of the Gap

- Clean Cooking Alliance: **USD 8 billion/year** funding gap to universal access by 2030.
- IEA: Africa needs **USD 37 billion** by 2040.
- African cookstove carbon revenue quadrupled to **-USD 107 million** in 2024.
- World Bank's **USD 200 million** Clean Cooking Outcome Bond (Ghana, Dec 2025) signals strong investor appetite.



Carbon is real revenue – but don't build the model on a carbon price you can't control.



The Hard Truths: Challenges & a Cautionary Tale

Credibility means showing the scars.

- ⊗ **KOKO Networks' collapse (early 2026):** Kenya's largest ethanol-cooking network shut down overnight, stranding users — the starkest proof that fuel-supply fragility and single-model dependence are existential risks.

Feedstock Competition

Food vs. fuel vs. blending mandates — a real and ongoing tension

Upfront Cost & Distribution

High starter-pack costs and thin refill-point density remain barriers at the last mile

Financial Pressures

Carbon-price volatility and working-capital strain can destabilise otherwise sound models

Lessons for India & a Two-Way Partnership

Trade, not aid – five transferable lessons and a concrete ask.

01

Produce Locally

Imported cooking fuel re-creates the Hormuz risk in the kitchen

02

Bank the Recurring Revenue

Refill economics decide survival – not stove sales

03

Use Tax & Standards as Levers

VAT/import-duty waivers and credible testing move markets cheaply

04

Build Last-Mile Trust First

Invest in after-sales before scale – or churn kills you

05

Stack Finance

Don't lean on carbon alone; layer results-based, commercial and consumer sources

❏ **The Partnership:** India brings distillery technology, blending know-how, stove manufacturing scale, carbon-finance depth and surplus ethanol. East Africa brings feedstock, proven last-mile models, carbon supply and field-tested innovations like the canister silicon seal cover.

The Ask: GBA-facilitated technology transfer, co-investment and a shared standards track, linked to the Africa Bioethanol Association.
You taught the world ethanol belongs in the tank. Let us help you prove it belongs in every pot.