JAMHURI YA MUUNGANO WA TANZANIA

OFISI YA MKUU WA MKOA DAR ES SALAAM

gesibora

KWA KILA MTANZANIA

NISHATI SAFI MASHINANI

Facilitating #CleanCookingEnergy access to underserved communities in urban & peri-urban Dar es Salaam.

April 2025 - January 2026

Cooking Energy in Tanzanian. *Overview, Barriers to Transition, Effects, Opportunities*

Tanzania grapples with a severe cooking energy challenge, predominantly relying on biomass, constituting 88.8% of energy sources. This leads to extensive environmental degradation and significant socio-economic consequences, including high mortality and health issues. Despite a rise in LPG adoption, success is concentrated in areas and individuals with higher incomes.

- **Financial barriers hindering transition.** One major obstacle is the affordability, with high upfront costs for LPG starter pack and expensive refilling costs hinders transitions as well as continued subscription respectively.
- **Lack of awareness.** A significant barrier to adoption stems from the lack of public awareness regarding the dangers associated with biomass fuels and the clear benefits of using LPG.
- **Biassed distribution strategies.** Weak transport infrastructure influenced oil marketing companies (OMCs) to adopt biased distribution strategies whereby some regions/areas remain underserved.
- **Inefficient cylinder management.** Under the existing branded cylinder recirculation model (BCRM), the financial burden associated with cylinder deposits and distribution is shifted downstream to retailers and end-users.

Opportunities. *Sizeable Market, Demand & Income*

70m
Tanzanians

Population. With only 12% clean cooking penetration and 5% LPG use, Tanzania has huge untapped potential—especially in peri-urban and rural areas—for scaling modern energy access.

16%
Growth

Income. LPG consumption in Tanzania has grown 16% annually since 2010, reaching 252,023 MT in 2022. This reflects a growing middle class and rising energy awareness, driving strong demand for clean cooking.

10m
Cylinders

Demand. Only 1.5 million cylinders are active, with 3.5 million dormant. To hit 80% penetration, 10 million must circulate. Overcoming financial barriers to reactivate dormant cylinders is crucial to expanding the market.

6
Brands

Innovation. Private sector investment has driven the rise of 6 competing LPG brands, creating a dynamic market that encourages innovation, reduces costs, and supports sector growth.

68%
of biomass consumption

Urban Markets. Over 70% of urban energy use is biomass, especially in low-income areas and small businesses. This offers a key opportunity to grow LPG refill sales and cylinder adoption.

60%
Regional Market.

Regional Markets. Coastal and Northern Zones use 67% of LPG but have 40% of the population. Rural areas, with 60% of the population, consume only 33%, showing a clear need to grow LPG adoption outside urban centres.


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"…ni lazima twende na nishati safi ya kupikia,
kwa maendeleo ya nchi yetu, kwa maendeleo ya jamii yetu na kukinga haki za wanawake."
Her Excellency Dr. Samia Suluhu Hassan.
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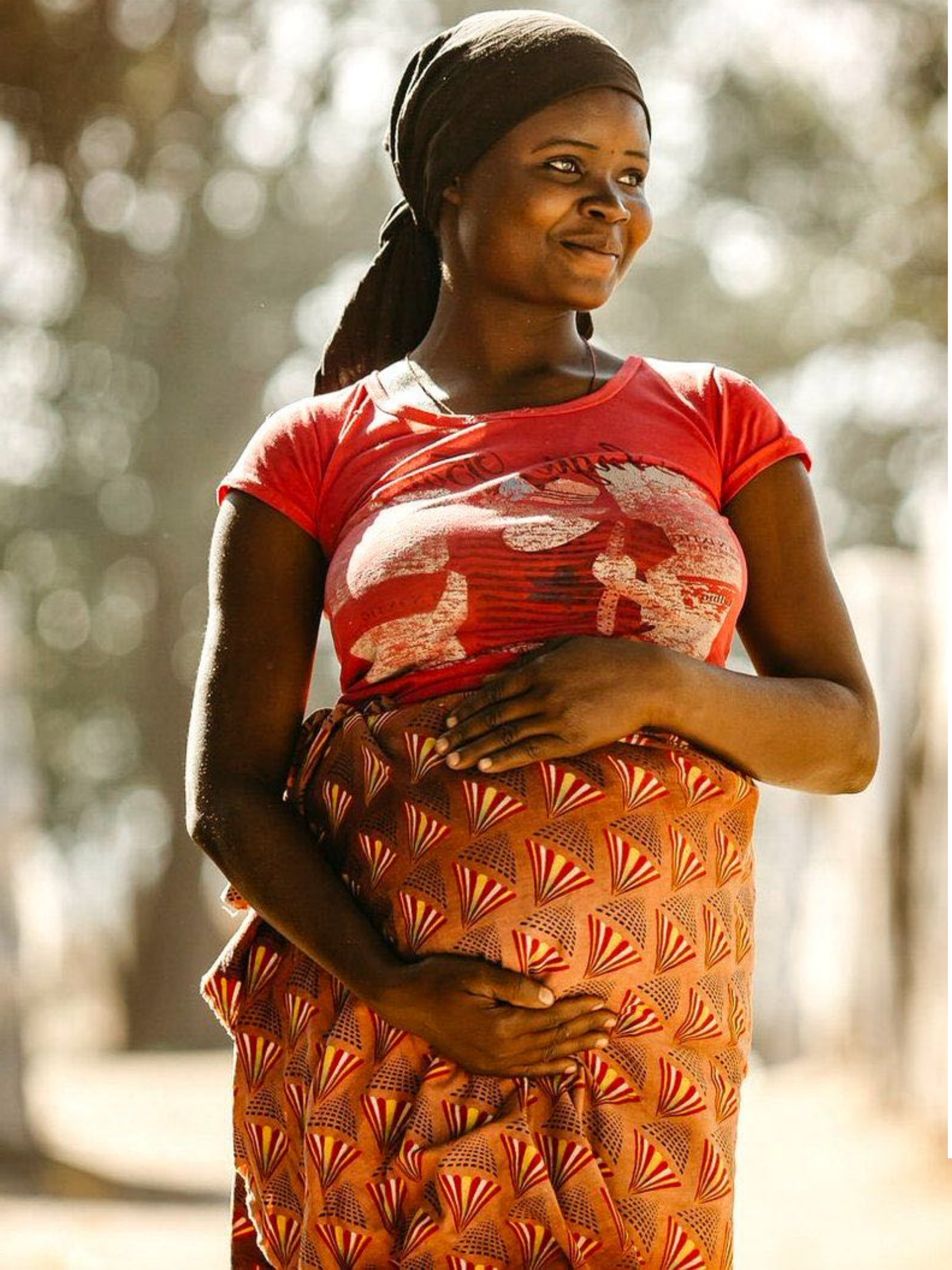

In Tanzania, women, primarily responsible for household cooking, bear the brunt of health issues due to prolonged biomass fuel use.

The Average Tanzanian Woman

- Active in the kitchen from ages 15-60yrs.
- Average 30 years of consistent exposure to CO.
- 3-4hrs/day on firewood and cooking.
- 12.9% COPD prevalence among TZ women.
- No education, no upward mobility
- Consumes 32x less gas than women with similar GDP/capita.

Persistent Health Issues Among women.

- **Respiratory.** Structural damage leading to infections. (Chronic Bronchitis,Emphysema/Breathlessness, Pneumonia, TB)
- **Eyes.** Damage to protective membrane. (Red Eyes, Corneal Opacity,Cataracts).
- **Maternal.** 44,000 cases(Miscarriages, Still/Premature births)
- **Congenital.** Children born with disabilities and health complications (Down syndrome, Asthma, Low immunity)
- **Socio-economic.** Donkey work, unplanned pregnancies, sexual violence, lack of education especially among girls.

1 NO POVERTY | 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 5 GENDER EQUALITY

Nishati Safi Mashinani. *Planning, Coordination & Oversight*

Despite national efforts to promote clean cooking energy, including free cylinder distribution programmes and awareness campaigns, the uptake of LPG among urban poor communities in Tanzania remains low. Challenges such as high upfront costs, refill affordability, inconsistent supply, limited awareness, and weak last-mile infrastructure continue to limit progress.

The main objective **Nishati Safi Mashinani** is to enable **low-income households to transition to safe, affordable and reliable LPG energy while creating local economic opportunities and leveraging technology for sustainable, scalable impact.**

To tackle these challenges, a strategic partnership has been formed between:

- **The Dar es Salaam Regional Commissioner's Office.** Providing institutional custodianship
- **GESIBORA.** Official Clean Energy Transition Partner for Dar es Salaam
- **The Tanzania Federation for the Urban Poor** (**TFUP**)**.** Representing organized groups in urban low-income settlements.

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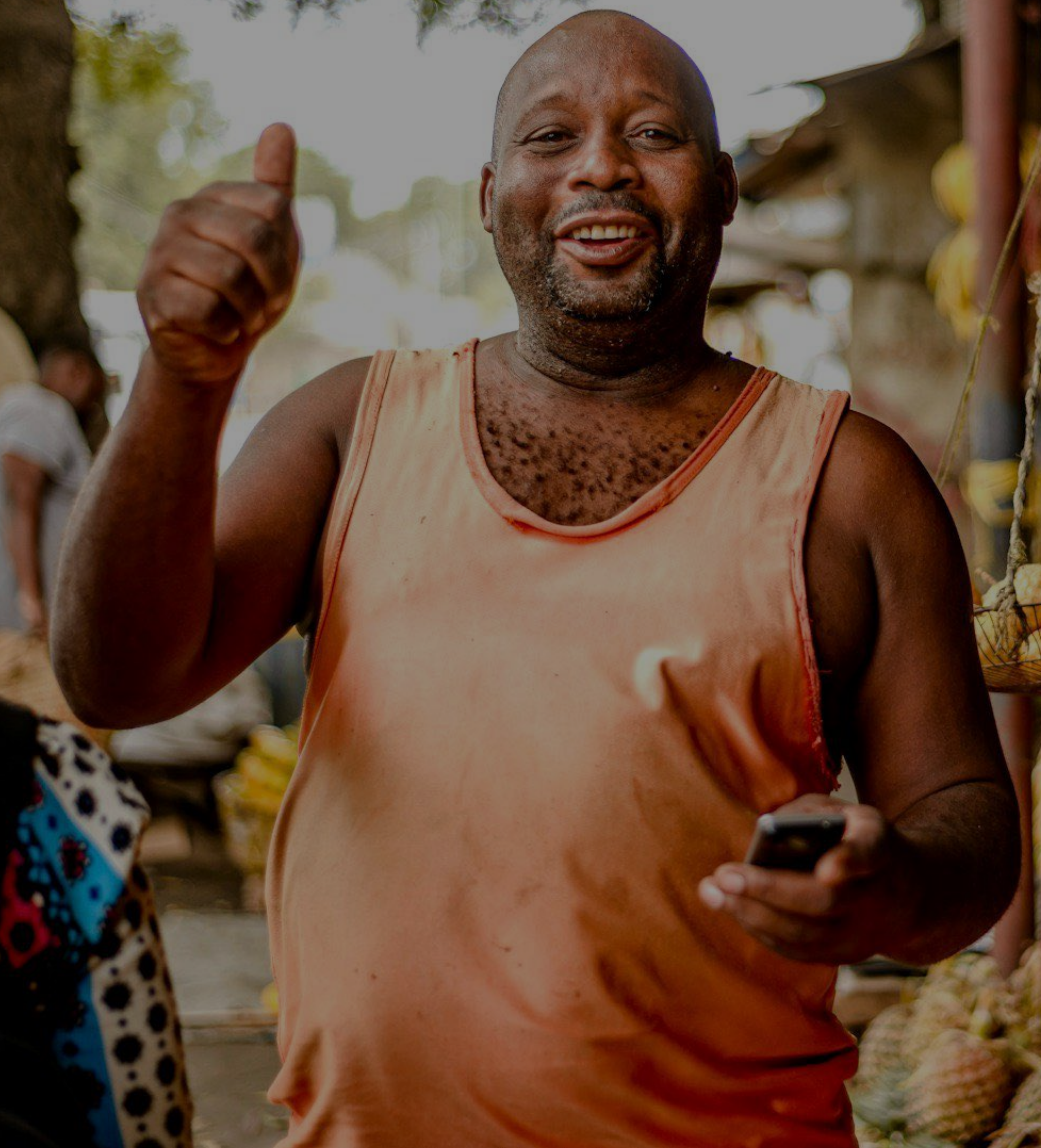

1 Akiba Ya Nishati

Foster a savings culture and energy ownership model via the group's savings scheme.

2 Subsidized Starter-Packs

Enable group members to access subsidized LPG starter packs at a fraction of the market price.

3 Sustained Subscription

Ensuring long-term adoption through affordable refill prices and flexible payment options

4 Improved Availability

Guaranteed consistent access by establishing an efficient supply chain ensuring proximity to end-users

5 Dormant Cylinders

Re-activate government-issued cylinders to unlock sleeping capital and expand access.

6 Community-Driven LPG Shops

Empower groups to operate enterprises by providing training, operational support, and access to supply

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1 — Transition Packages for Households

Group members pay TZS 30,000 for a 6kg LPG cylinder, ceramic burner, and trivet.

2 — Establishment of Group-Run LPG Shops

Groups get other batches of cylinder as inventory to resell or refill to members.

3 — Cylinder Standardisation

Members transition to a one brand, for supply efficiency, cost reduction and quality control.

4 — Dormant Cylinder Activation

Cylinders from past programs collected and stored by groups, refilled via super-dealers

5 — Akiba na Kamati ya Nishati Safi

Groups manage savings wallets where members contribute regularly to fund refills.

6 — Regulatory Support from RC's Office.

The RC's custodianship, allows for certain requirements to be waived during the pilot.

Nishati Safi Mashinani Impact : *Economic, Members & Social Value*

The programme has unlocked significant household capital and created a sustainable community-led business model.In 10 months, the programme has generated a estimated total economic impact of over TZS 646m through savings and operational revenue.

Economic Driver		**Monthly Impact (All Groups)**		**Cumulative (10 Months)**
Direct Fuel Savings (Members)	TSh	19,188,000	TSh	191,880,000
Group Sales Revenue (Profit)	TSh	4,126,500	TSh	41,265,000
Community Fuel Savings (Beneficiaries)	TSh	41,340,000	TSh	413,400,000
Total Economic Gain	**TSh**	**64,654,500**	**TSh**	**646,545,000**

Economic Impact: *Value for Participating Groups*

By transitioning participants from charcoal to LPG, the initiative has effectively reduced household energy costs while improving the health and safety of thousands of beneficiaries. The following table outlines the collective financial impact across the 12 groups, highlighting the programme's success in driving the national clean energy agenda.

S/N	Group Name	Location	District	Members	Cylinder Inventory	Estimated Beneficieries	Est. Savings (Monthly)	Est. Revenue (Monthly)
1	Msimbazi Group	Karakata	Ilala	36	144	648	TSh 648,000	TSh 378,000
2	Mshikamano Group	Chamazi	Temeke	20	100	450	TSh 360,000	TSh 262,500
3	Faraja Group	Chanika	Ilala	22	88	396	TSh 396,000	TSh 231,000
4	Tunaweza Group	Majohe	Ilala	20	80	360	TSh 360,000	TSh 210,000
5	Uhuru Group	Chamazi	Temeke	28	112	504	TSh 504,000	TSh 294,000
6	Tuamke Group	Vingunguti	Ilala	30	120	540	TSh 540,000	TSh 315,000
7	Muungano Group	Chamazi	Temeke	25	100	450	TSh 450,000	TSh 262,500
8	Amka Group	Viwege	Ilala	23	92	414	TSh 414,000	TSh 241,500
9	Upendo Group	Keko	Temeke	30	120	540	TSh 540,000	TSh 315,000
10	YUEC Group	Vijibweni	Kigamboni	20	80	360	TSh 360,000	TSh 210,000
11	Tumaini Letu	Kinondoni	Kinondoni	30	120	540	TSh 540,000	TSh 315,000
12	Mamalishe Kawe	Kawe Sokoni	Kinondoni	208	416	1872	TSh 3,744,000	TSh 1,092,000
			Total	**492**	**1572**	**7074**	**TSh 8,856,000**	**TSh 4,126,500**

Member-Centric Impact : *Individual Financial Empowerment.*

The programme facilitates a double-win for its 492 core members by converting routine energy expenses into vital household capital.

- **Internal Pricing Subsidy:** Members benefit from a preferential rate, purchasing gas refills at TZS 2,000 less than the standard community price. This immediate discount serves as an internal subsidy that rewards group participation and loyalty.
- **Fuel Transition Savings:** Switching from charcoal to LPG reduces individual monthly energy costs by TZS 39,000 based on a daily charcoal spend of TZS 2,000. These savings represent a direct increase in the monthly purchasing power of every member.
- **Disposable Income Generation:** Given the savings detailed above, members have collectively unlocked income for non-energy essentials. This liquidity is frequently redirected toward critical family needs such as education, healthcare & improved nutrition.
- **Capital for Business Growth:** The recovered funds provide the necessary seed capital for members to scale their small enterprises. This financial cushion also allows vendors to formalize their operations as part of the programme's strategic goals.

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Social Impact : *Reaching 5,000+ Beneficiaries.*

Beyond the core membership, the programme has successfully scaled to impact an estimated 7,074 beneficiaries across Dar es Salaam.

- **Community-Wide Reach:** The initiative positively impacts over 7,000 community members based on average household sizes. This extensive footprint demonstrates the programme's capacity to scale rapidly within the informal urban and peri-urban areas.
- **Public Health Advancement:** Transitioning to LPG directly reduces the prevalence of respiratory illnesses caused by indoor air pollution. This shift creates a safer domestic environment lowering long-term healthcare burdens for families and government.
- **Time & Gender Empowerment:** Participants report a significant reduction in time poverty due to the speed and efficiency of LPG cooking. This saved time increases their confidence and allows for greater participation in other development activities.
- **Environmental Stewardship:** The reduction in charcoal demand across these 1,572 households helps mitigate local deforestation and urban carbon emissions, supporting the governments goal to combat deforestation.

Way Forward. *Addressing Bottleneck & Opportunities.*

To effectively scale the programme we need to address operational bottlenecks and ensure the following strategic improvements are being implemented. We seek the Ministry's support in the following strategic areas.

- **Logistics Infrastructure Support:** We require dedicated distribution assets, such as trucks and motorbikes, to maintain a consistent 75% refill rate. These resources are critical to eliminating delivery delays and ensuring reliable cylinder exchanges.
- **Expansion of Commercial Inventory:** Expand to 15kg and 38kg cylinders to meet the high demand from food vendors. Scaling this inventory will increase group revenue and accelerate clean energy adoption among high-volume users.
- **Digital Data Integration:** Deployment of **GESIBORA** platform to enable real-time tracking of inventory and member savings. This digital transition will bridge administrative gaps and provide the programme with transparent, data-backed impact reports.
- **Accelerated Member Formalization:** Expedite business licensing for members transitioning into recognized clean energy agents. Official formalization will secure the sustainability of community savings schemes and improve long-term member retention.


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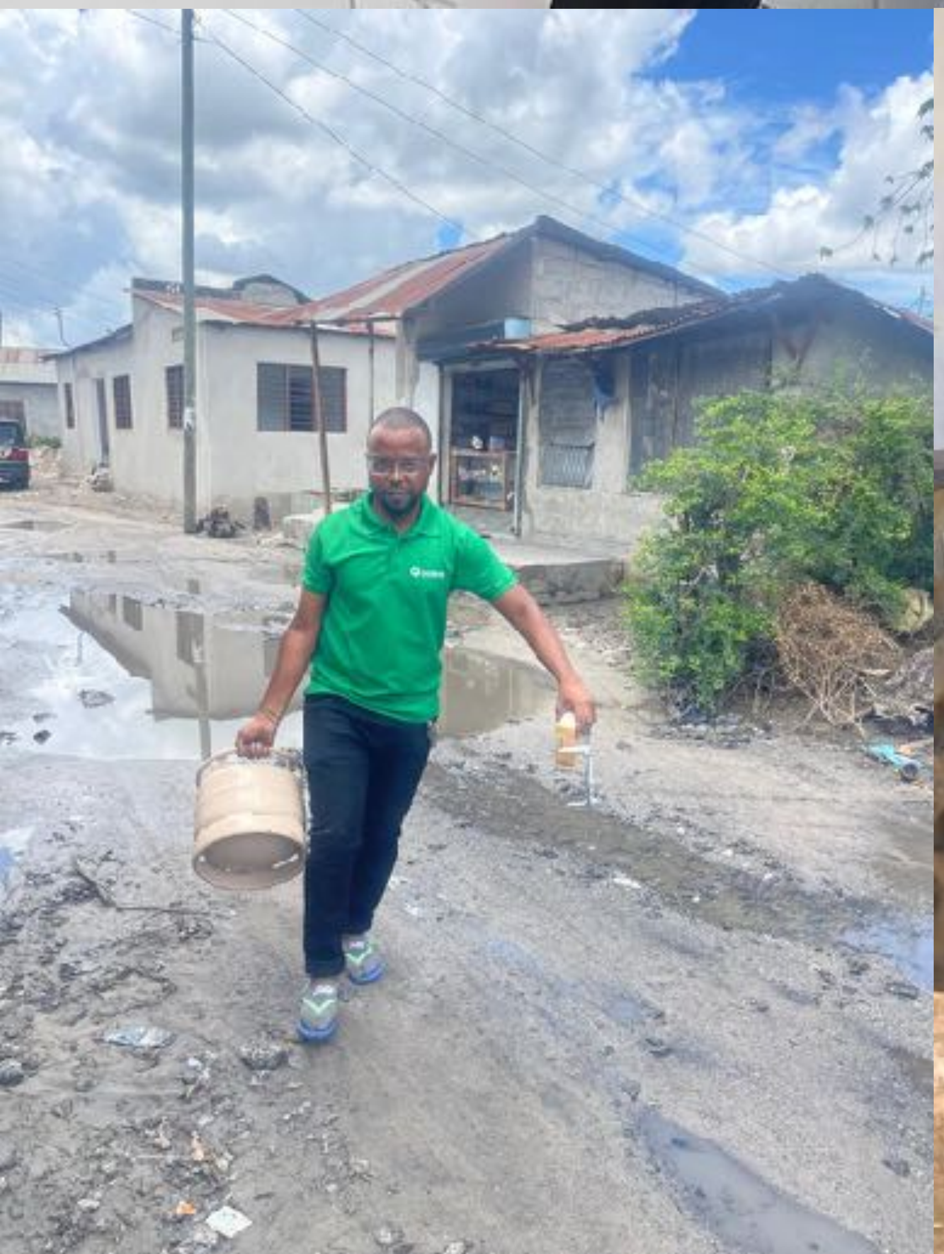

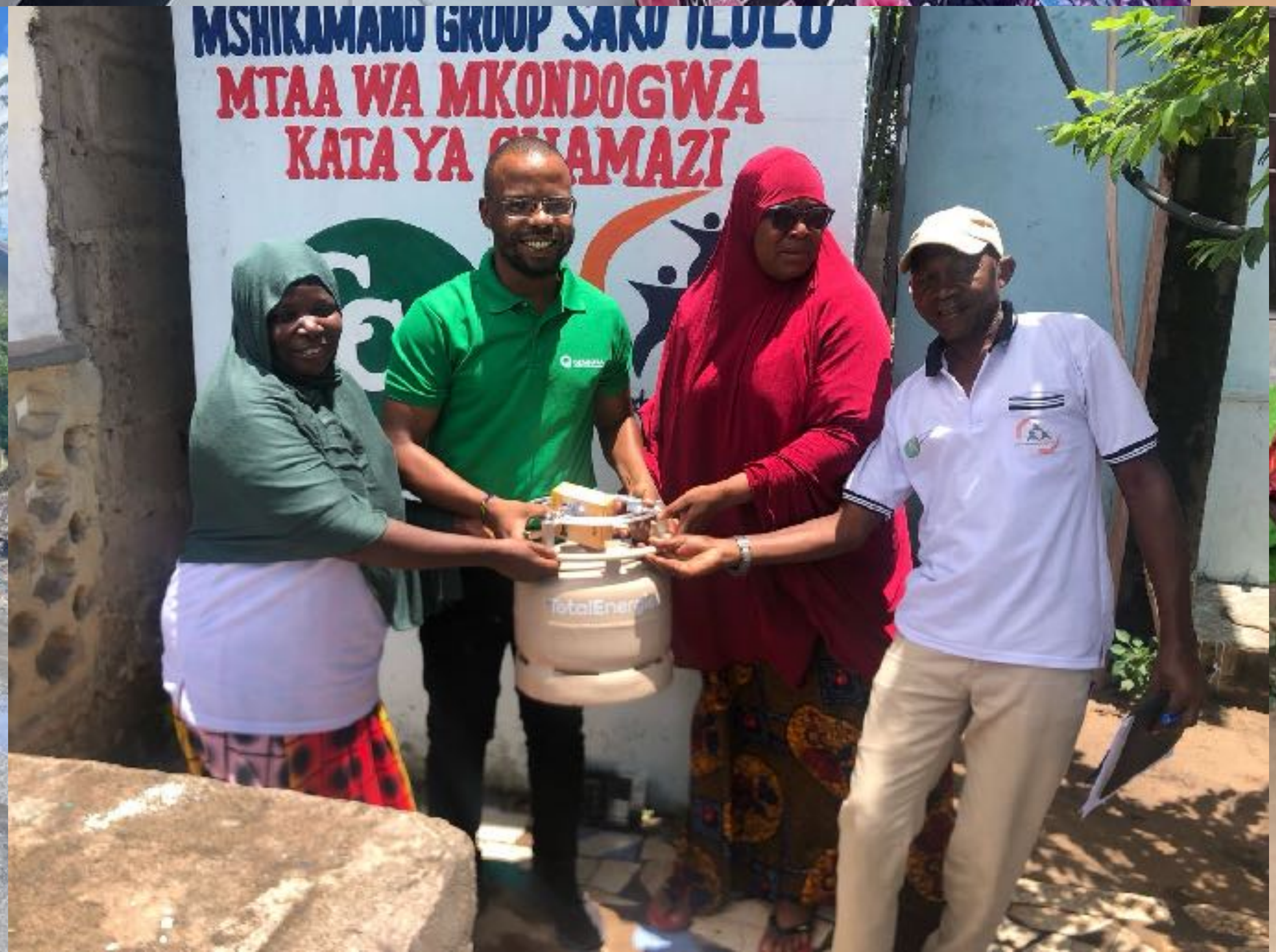
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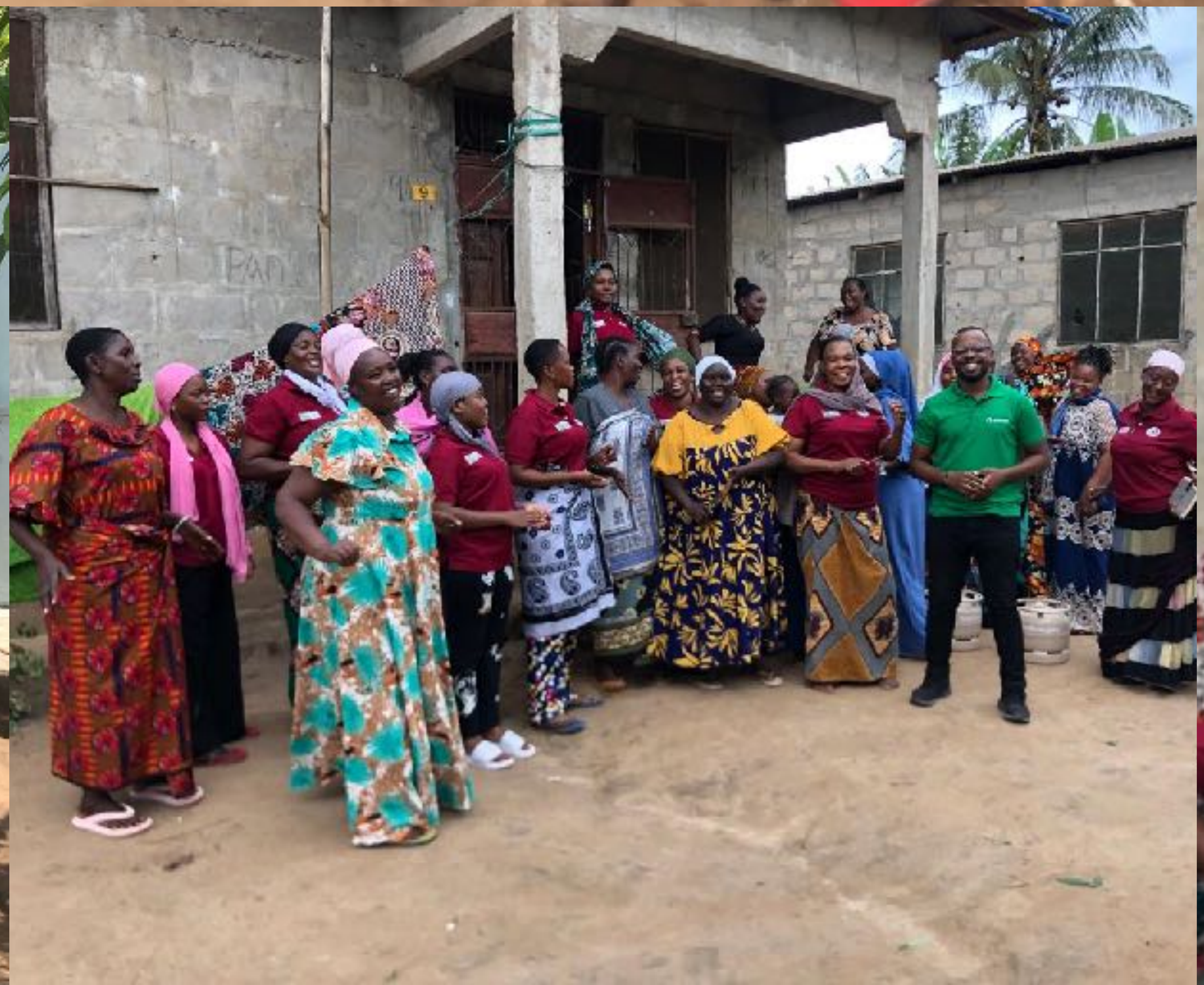

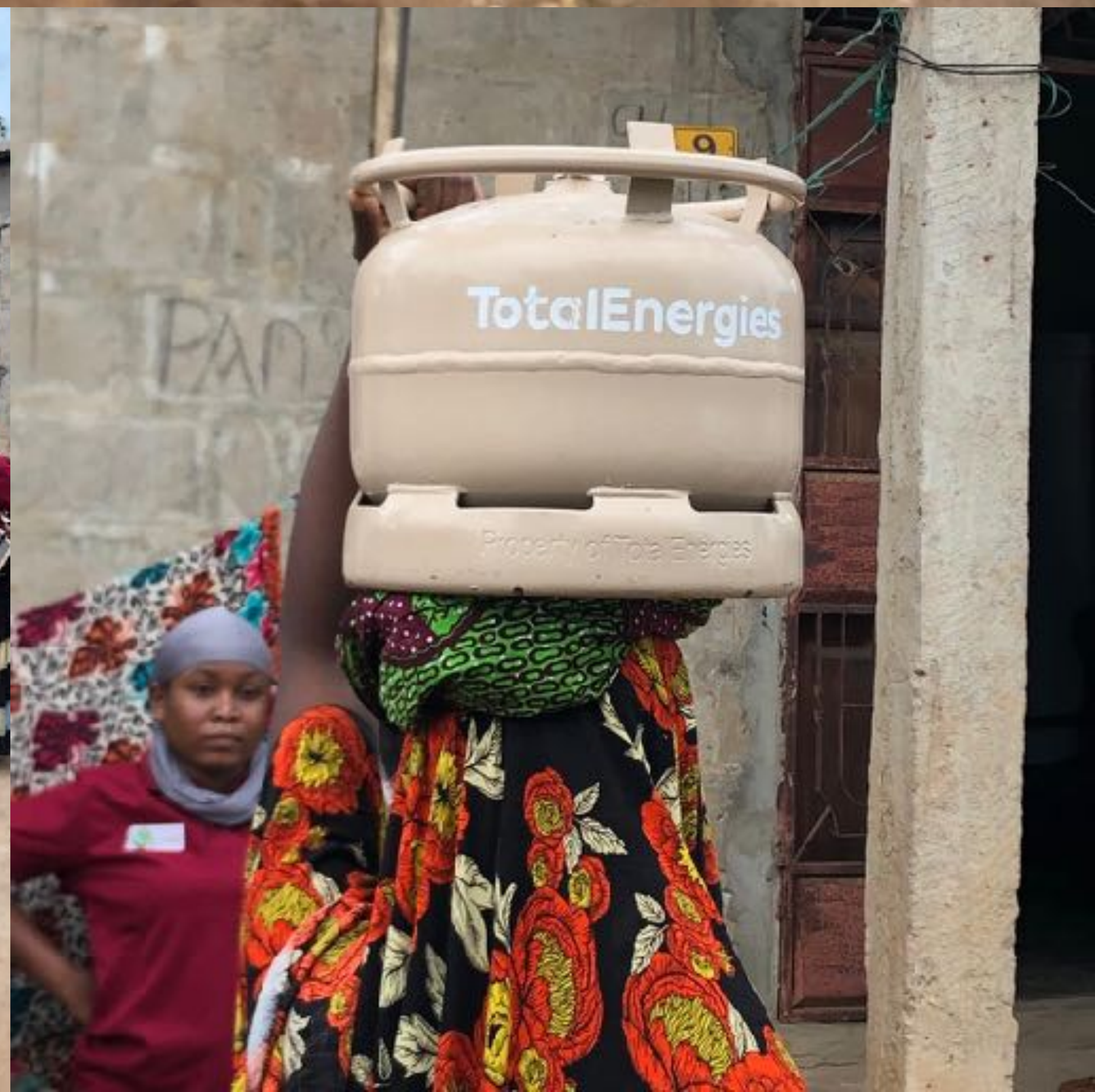
TotalEnergies

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