

What we are learning in Africa: minigrids scale faster when they are linked to value creation.

From our own experience across rural Africa, the next frontier is not only energy access — it is rural value creation, pre-processing, and market linkage.



Rural resources



After transport:
too expensive,
lower quality.



1. Mini-grids are scaling.

Stronger companies, more capital, and better execution are moving the sector beyond pilots.



2. But many rural and remote areas still need a stronger commercial logic.



3. One promising direction is to look at rural areas not only through demand — but through value creation.



Rural Africa already has



- agriculture, fisheries, forestry
- mineral resources
- early-stage processing potential



Minigrids & Value Creation starts with one question:
how can rural Africa connect its resources to scalable value chains?



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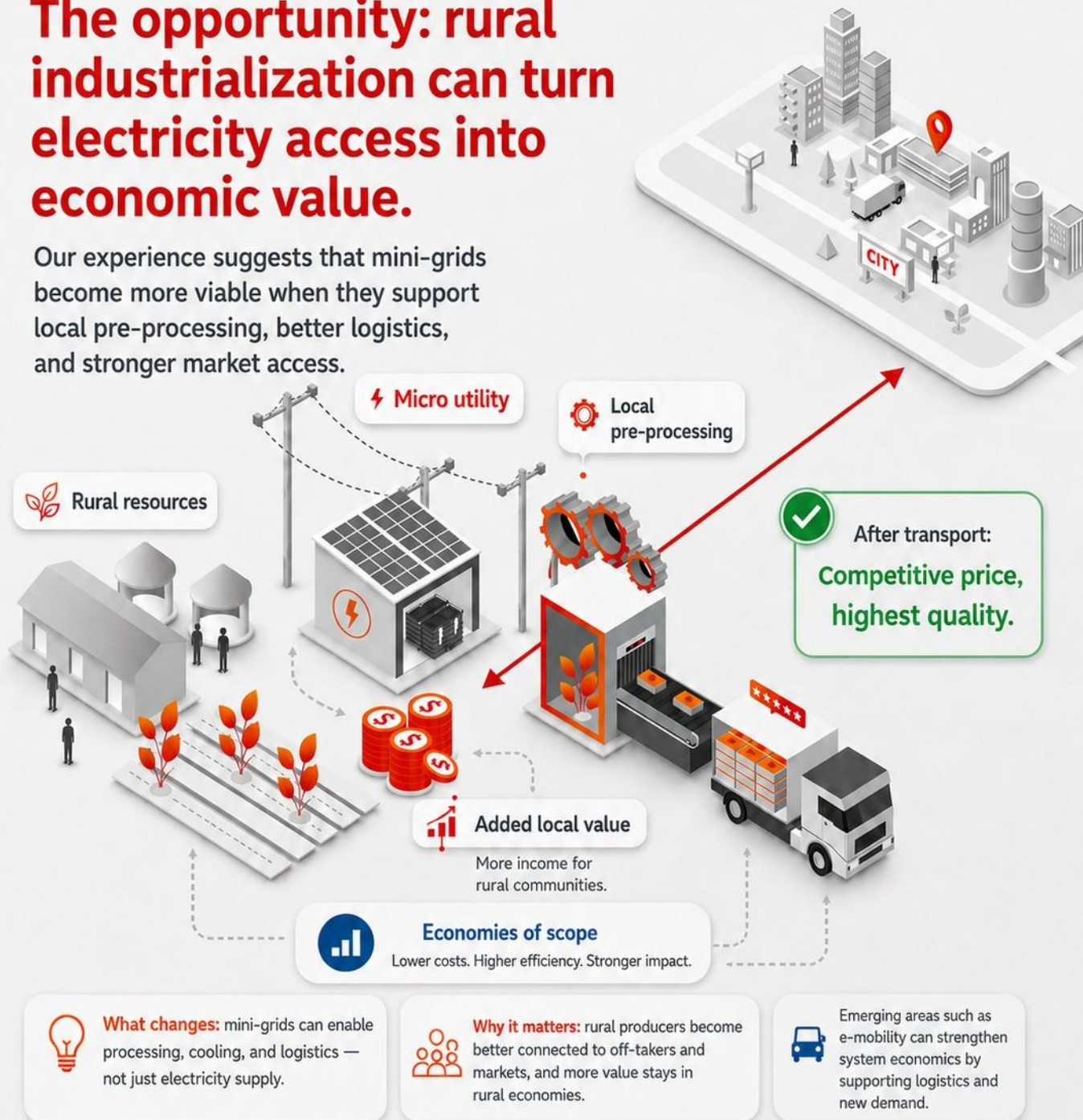
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The opportunity: rural industrialization can turn electricity access into economic value.

Our experience suggests that mini-grids become more viable when they support local pre-processing, better logistics, and stronger market access.



This is the next layer of the sector:
linking mini-grids with rural industrialization and value creation.

A practical learning from Tanzania: value creation depends on the right processing model.

In one fish value chain around a mini-grid, the lesson was not just about cooling technology — it was about how energy, processing, and market linkage work together.



1 The initial idea

Use ice to preserve fish and increase value.

On paper, it worked.



2 What failed in practice

- Fish lost weight during transport because of meltwater.
- Revenues declined.
- Margins became unstable.



3 What worked better

- Switching to local deep freezing stabilized product quality.
- Margins improved.
- Energy enabled processing → processing stabilized value → value improved business performance.



4 What we learned

- Mini-grid companies bring infrastructure and local presence.
- Value chain actors bring market access, processing expertise, and offtake.
- At scale, this becomes a partnership question.



Energy



Processing



Stable value



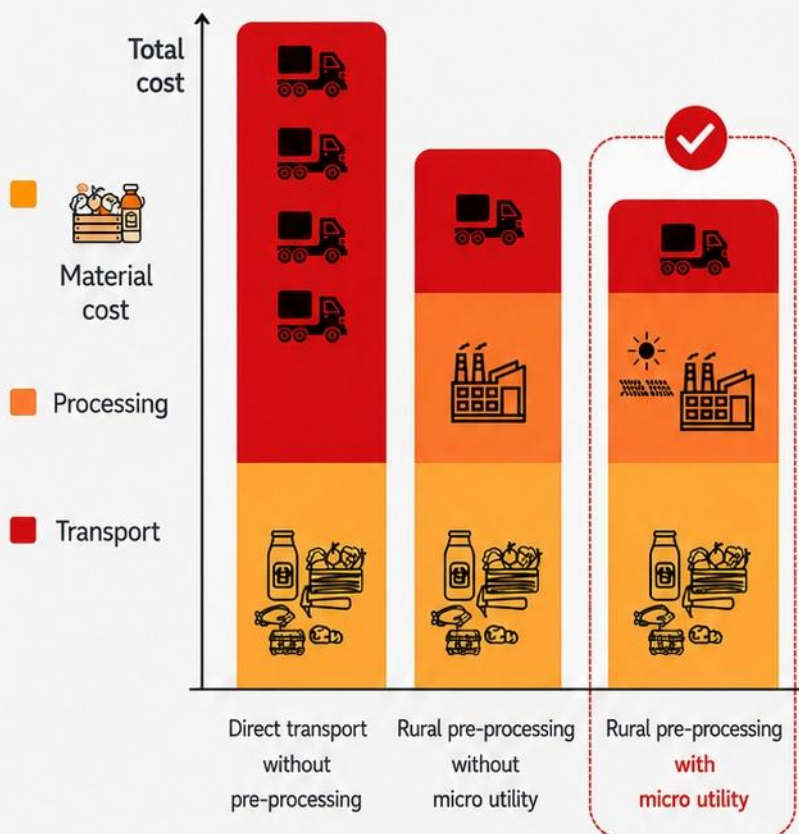
Better business



Demand becomes viable when it is anchored in robust activities connected to national or global markets.

The formula: use value-chain analysis to find viable rural industrialization models.

In our experience, local pre-processing can be viable even with higher mini-grid electricity costs — if it lowers total cost by reducing transport and preserving quality.



Formula

Compare:

A = rural raw product price + transport to processing hub + processing cost at hub

B = rural raw product price + local pre-processing with mini-grid electricity + transport to processing hub + processing cost at hub

If **B** is much lower than **A**, you have identified a viable rural industrialization model.



Pre-processing can reduce weight and volume.



Conservation lowers losses and preserves quality.



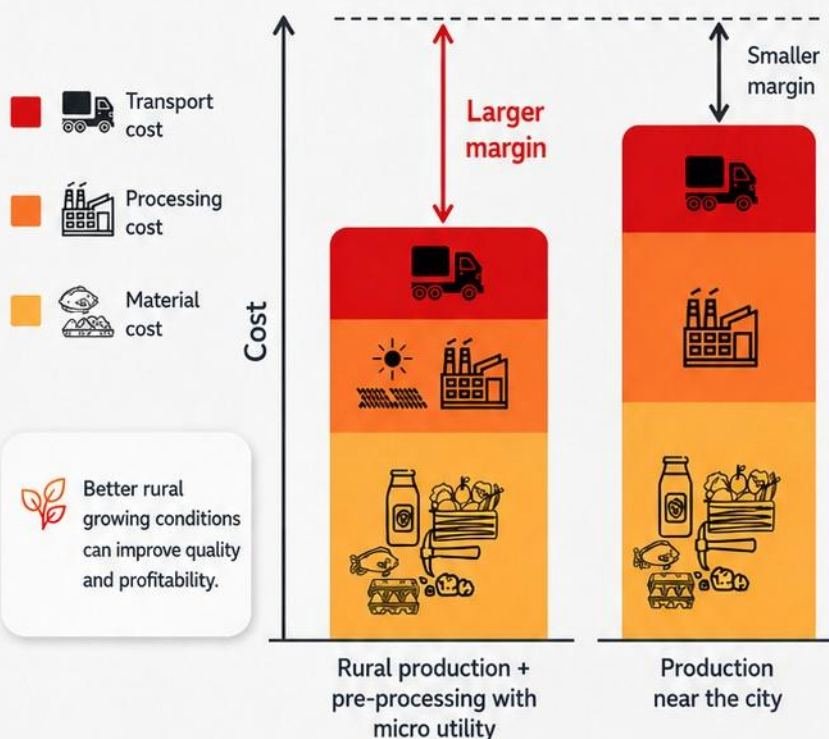
Better rural growing conditions can also improve profitability.



Where local pre-processing drastically lowers total cost, mini-grids become engines of rural value creation.

The business case improves when rural production connects to external markets.

What matters is not only productive use – but reliable offtake, local pre-processing, and better access to national and international buyers.



1 The shift

Move from local production → local consumption toward local production → external markets → cash inflow.

2 The missing link

Reliable offtake can remove the demand bottleneck and shift the focus to scaling supply.

3 Possible pathways

- Public procurement by governments or UN agencies
- European corporates under ESG and traceability pressure
- African aggregators, processors, and exporters adapting sourcing models



GAIN (German African Import Network)

explores how European demand can connect with African value chain actors while enabling more value creation closer to the source.



The winning model is not just lower cost – it is stronger margin, reliable offtake, and better market access.

How to implement: turn value-chain logic into viable rural electrification.



Across rural Africa, the commercial logic strengthens when mini-grids are linked to pre-processing, market access, and reliable offtake.

1 Start with excellent rural products

Look for products with strong quality, volume, and market relevance.



2 Use the formula

Test whether local pre-processing plus mini-grid electricity lowers total delivered cost.



3 Build the market link

Reliable offtake and strong value-chain partners are essential.



4 Scale what works

Where the economics are clear, rural industrialization can create jobs, value, and viable demand.



Raw product

+



local pre-processing

+



lower transport cost

+



market linkage

=



rural value creation



This is still an evolving field, and we are keen to learn how others are linking energy access with value chains in practice.



**Minigrids & Value Creation is not a slogan —
it is a practical lens for building viable rural electrification in Africa.**