



Nigerian Energy Support Programme (NESP)

Boosting revenue of mini-grid business with the KeyMaker Model

Rural Electrification Agency

On behalf of the Federal Ministry of Power, Works and Housing

With the support from the Nigerian Energy Support Programme (NESP)

Implemented by

The KeyMaker way of looking at mini-grids

Under the **KeyMaker Model**, the mini-grid operator:

- Makes use of high revenue **commercial opportunities** that **mini-grids “unlock”**
 - **Accesses** business opportunities related to local goods owned by the village community **by extending its electricity supply monopoly** to local processing and trading
 - **Harvests synergies** and cost sharing options between processing and trading of **local goods** and mini-grid operation through
 - Joint management capacities, logistics competences
 - Readily established community relations, understanding of community decision making processes
- The **mini-grid operator** can **multiply its revenue**
- The **community** can **capitalize on the local goods** traditionally owned by them and foster local development

Local goods in this context can be **agricultural goods** like good soils, access to fresh water; **fishing resources** in rivers, lakes or the sea; **lifestock** like beef.

KeyMaker example - Tilapia in Lake Victoria



In Tanzania Tilapia demand is higher than supply. Import duties apply.

JUMEME collects Tilapia, freezes fish on-site, jumps two trader stages and delivers highest quality frozen Tilapia to the capital.

Next stage: Cage farming of Tilapia using locally made fish feed.

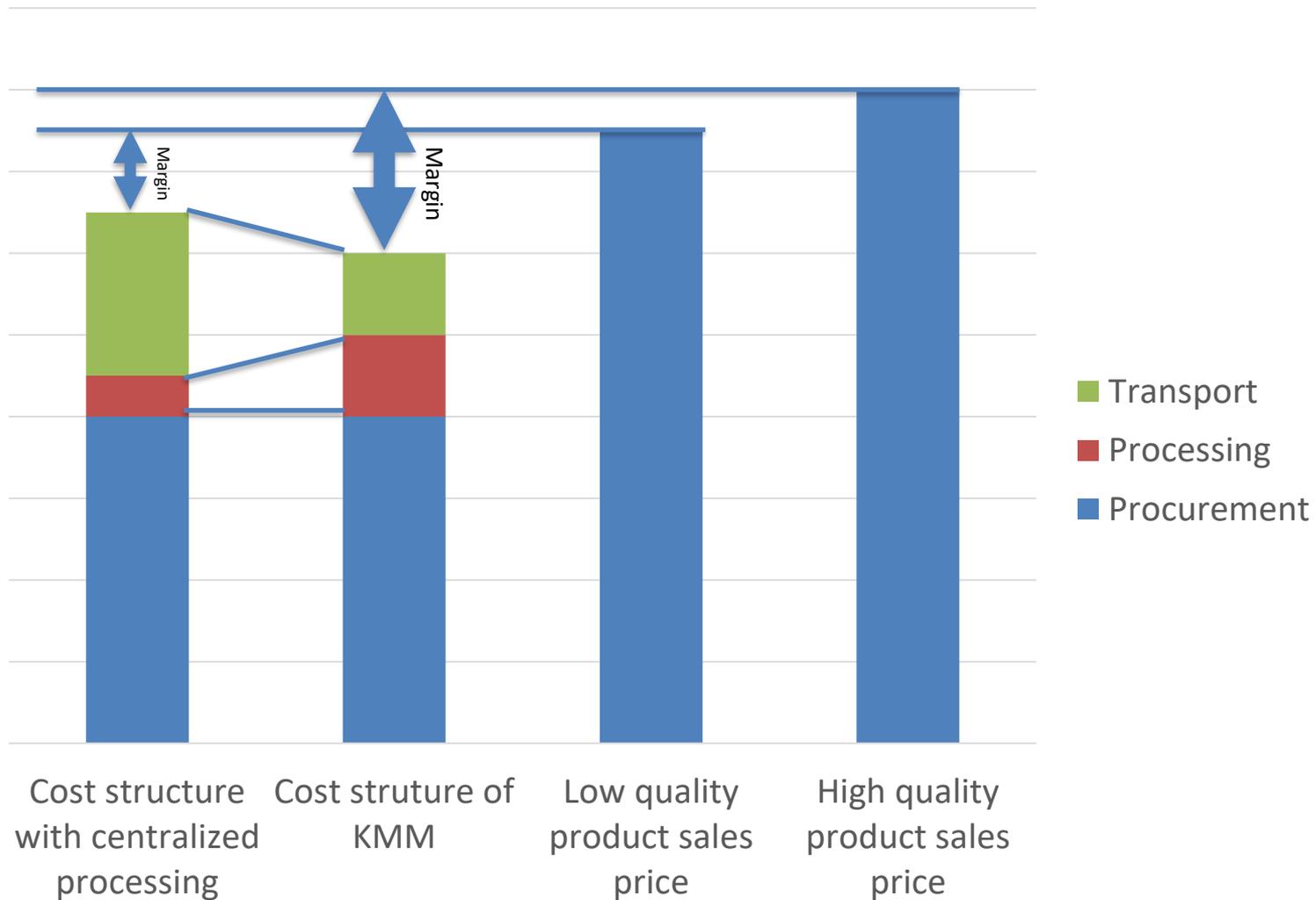


Guiding Questions 1

Can locally produced goods be *processed with mini-grid electricity* to

- significantly increase product quality?
- significantly decrease transport cost?

Guiding Questions 1 – increase quality, reduce cost



Good KeyMaker Models

Tilapia → local cleaning and deep freezing

- Quality: freshly frozen Tilapia
- Transport: reduced water losses through on-site freezing

Cattle → beef + leather through on-site slaughtering and hanging in cooling container

- Quality: less stressfull slaughtering saves hormones for tender meat
- Transport: more meat per truck compared to life beef transport

Challenging KeyMaker Models

- Rice
- Wheat
- Maize
- Cassava
- Etc.

- Chicken

- Banana
- Mango
- Etc.

KeyMaker Models to be investigated further

Palm Oil → Collection from natural palm forests (no plantages), local pressing of oil

- Quality: ???
- Transport: reduced cost through oil transport instead of seeds

Dried fruit → Collection of mango, pineapple, banana and drying during daytime with solar electricity

- Quality: ???
- Transport: ???

Guiding Questions 2

Can I sell my products to an off taker who

- takes all quantities I can produce?
- can guarantee reliable off-take prices in the long run?

KeyMaker Off-Takers

Good Off-Takers

- Whole sale traders for national or regional supply
- Exporters

Difficult Off-Takers

- Local markets
- Retail shops
- Retail markets
- Wholesale markets (where the producer has to look for an off-taker)

Guiding Questions 3

- **How much** supply can I get from the mini-grid catchment area?
- **What risk** is related to the supply chain?
- Do your vendors need to change to deliver the required quantity and quality?
 - **Do not try to change habits!**
 - **Do not try to „educate“** your vendors!
 - Let people set their own pace - **Development comes step by step.**



Team exercise



Thank you!

Nigerian Energy Support Programme (NESP)
Sustainable Energy Access (Off-Grid)