



The Renewable Energy and Energy Efficiency Partnership

## Investment & Partnership Needs

Accelerating Energy Transition for Food System Transformation  
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# Accelerating Energy Transition for Food System Transformation

The role of energy in supporting the development of sustainable food systems:

## Sustainable Energy in Food Systems

- ✓ **Production:** solar irrigation, greenhouse heating, poultry incubation
- ✓ **Storage & handling:** cold-chains, energy efficiency
- ✓ **Processing:** Small scale adding value to farmers, large scale creating jobs, energy efficiency critical
- ✓ **Bioenergy:** Crop residues and food waste used for electricity and thermal energy needs

## What Constraints Sustainable Energy Development

- ✓ Unsupportive **policy environment**, especially where renewable energy policy frameworks are immature
- ✓ **Technical capacity** constraints, limited local capacity to develop, adapt and maintain energy technology increases costs and slows adoption
- ✓ **Financial barriers**, for end users (e.g. farmers) and **lack of risk mitigation/risk sharing** for investors (credit and climate)
- ✓ Lack of **awareness** of the potential of sustainable energy worsened by a history of poor practice

## What Forms of Investments are Required?

- ✓ **Aspects that need external investment**
- ✓ **Potential sources of funds and repayment forms**
- ✓ **Partnerships needed**
- ✓ **Ideal balance of public and private funding**
- ✓ **Scale-up activities to attract investors**

# Financing the Clean Energy Value Chain in Developing Markets

Some of the challenges are:

- ✓ mismatch between supply and demand of capital;
- ✓ most funding is committed in hard currency;
- ✓ lack of participation of local financial institutions;
- ✓ limited deployment of financial instruments;
- ✓ high risks and small size of projects;
- ✓ limited public funding, need to adjust risk-returns to accelerate and unlock private capital.

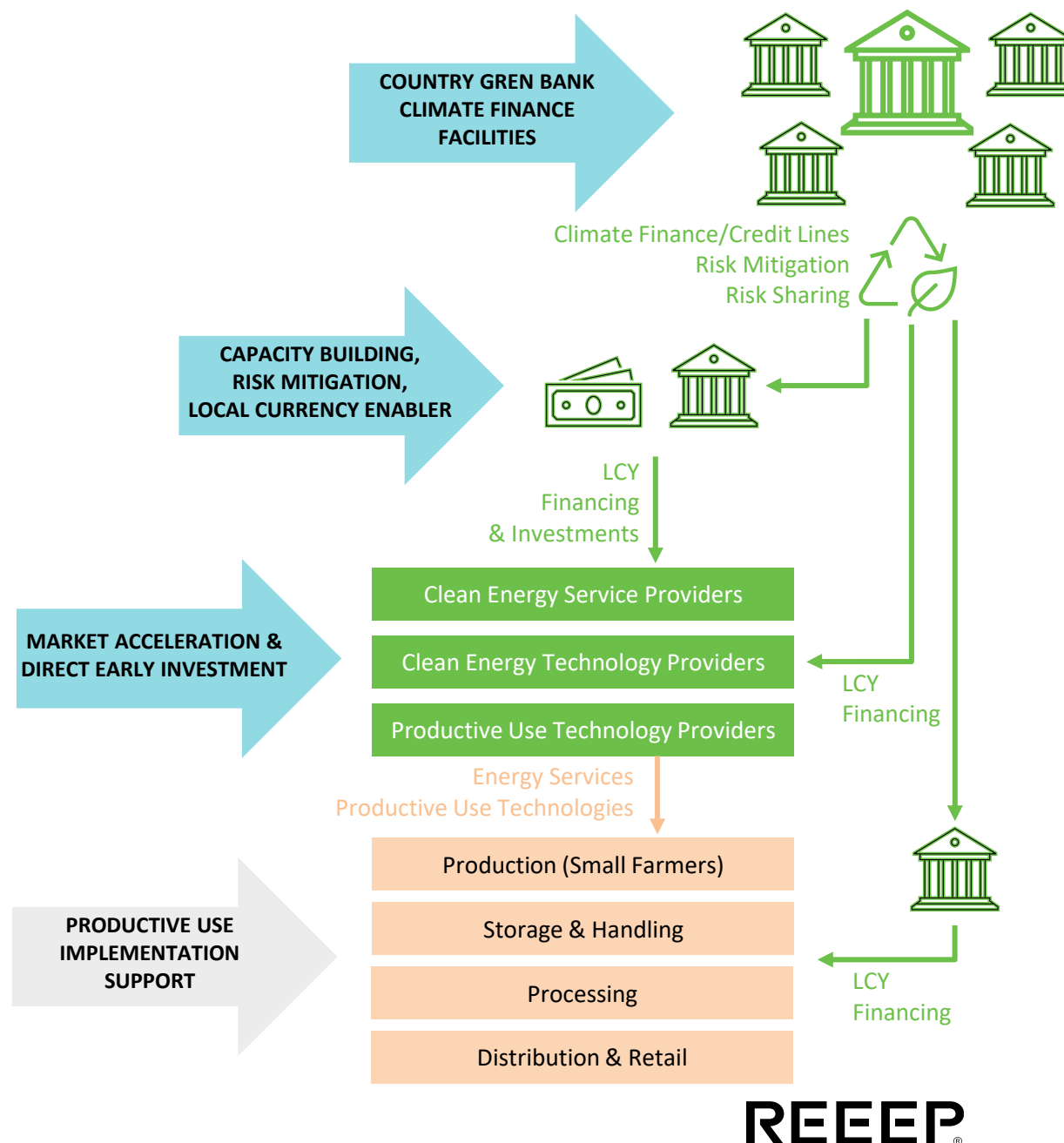
Common barriers for adoption of productive use technologies are:

- ✓ high investment for capital expenditures;
- ✓ lack of suitable financing mechanisms;
- ✓ viability of business models /ability to monetize on the energy transition/new technology;
- ✓ off-grid electricity tariffs not affordable if cost reflective (high capex and opex, low population density in rural areas)
- ✓ delayed formulation of policy and regulatory framework for renewable energy off-grid systems

## REEEP's Vision

A coordinated approach across the value chain:

- ✓ **Development of green banking local capacities** to enable countries to raise climate finance and deploy risk mitigation, risk sharing and co-investment to both (1) support local financial institutions to lend to the sector and (2) attract additional private investments,
- ✓ **Unlock financing** from local financial institutions and international lenders with green banking tools,
- ✓ **Market acceleration of** clean energy and productive use technology and service providers, with pipeline origination, preparation and development (including results based finance, and direct early investment),
- ✓ **Partnerships** for productive use implementation support across the food system value chain, ensuring maximization of impact of existing programmes and penetration of micro-finance institutions in the sector.





## Example: Results Based Finance – the BGFA Programme

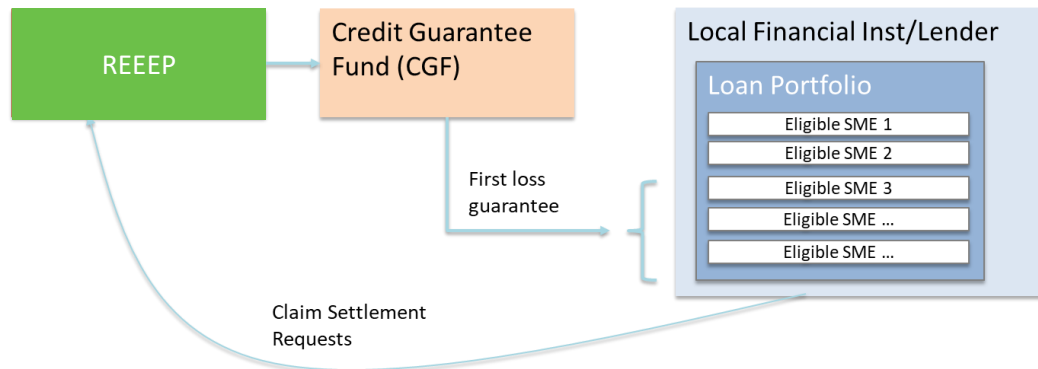


- EUR 70 million energy access programme launched by the Government of Sweden, managed by NEFCO and implemented by REEEP; duration 2019 – 2024+ (<https://beyondthegrid.africa/>)
- Targets the provision of sustainable clean energy services for underserved people in rural and peri-urban areas of Burkina Faso, Liberia, Mozambique, Zambia and Uganda
- Results-based financing approach: financing deployed on grant-basis as “free-equity” across multi-year project lifecycles; subject to rigorous monitoring and verification
- Expansion of a successful pilot in Zambia – first financing round; Beyond the Grid Fund for Zambia (<https://www.bgfz.org/>)
- Market Creation – uses public sector funding to overcome early structural challenges in the market, incentivize early-stage start-up and medium-term scale-up needs of Energy Service Providers and create conditions for long term sustainability & commercial investment



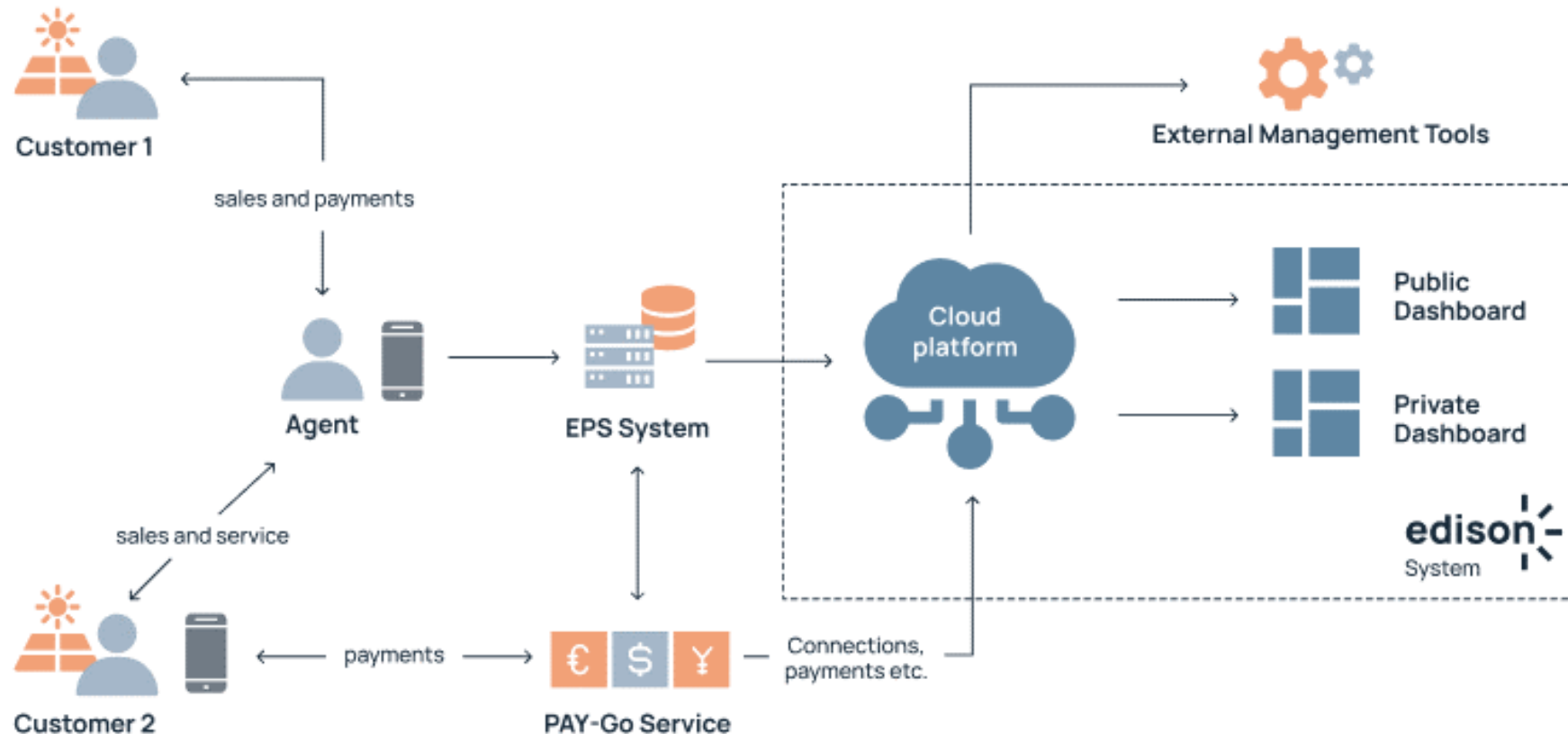
## Example: Credit Enhancement to LFI – Nepal, Tanzania & Zambia

- Support to local financial institutions to lend to the off-grid clean energy and productive use sector (commercial banks and micro finance institutions)
- Credit enhancement covers first loss of a portfolio of eligible loans to clean energy/productive use SMEs/end customers, capped to 80% of each individual loan. Fully funded through an account at the partner local financial institution (simple, and on demand).
- Combined with green bank capacity building and product design.
- Technical assistance support to pipeline origination and preparation.



## Example: Energy Data and Intelligence – Edison

- A platform to manage data collection, storage, access, analysis and visualization in order to remotely verify off-grid energy services.
- Currently being used for the results-based finance programme Beyond the Grid Fund for Africa.



## Example: Technical Assistance – the PFAN Programme



- The Private Financing Advisory Network (PFAN) is hosted jointly by UNIDO and REEEP. PFAN was initiated by UNFCCC and the Climate Technology Initiative in 2006 and managed by ICETT until 2016.
- PFAN provides free business coaching and investment facilitation for climate adaptation and clean energy projects in low- and middle-income countries that have an investment ask between USD1mio and USD50mio. It has a network of more than 100 advisors in 44 countries supporting 120+ climate and clean energy projects per year.
- PFAN is active in low- and middle-income countries in Sub-Saharan Africa, South Asia & Southeast Asia, the Pacific Islands, Eastern Europe, Central Asia, Central America & the Caribbean Islands.
- Since its inception, PFAN has supported more than 750 projects & businesses, which have raised an aggregate of USD 1.84bn.

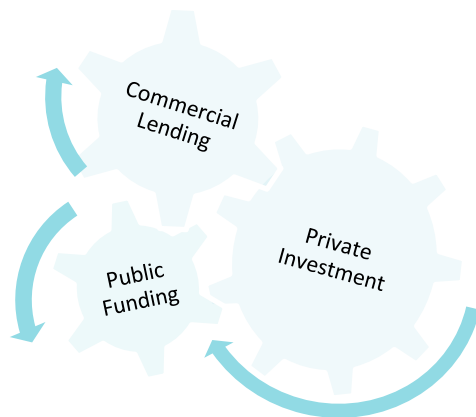




## To keep in mind

The role of the different financing sources and blending.

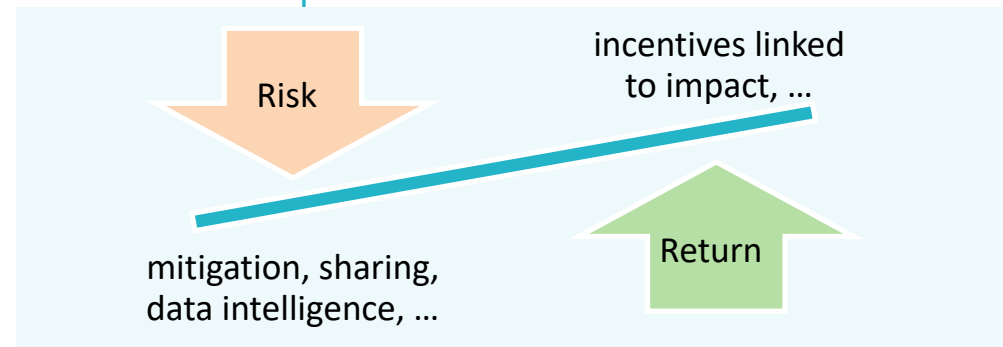
A funding continuum from grant, to early equity, growth capital and into commercial lending.



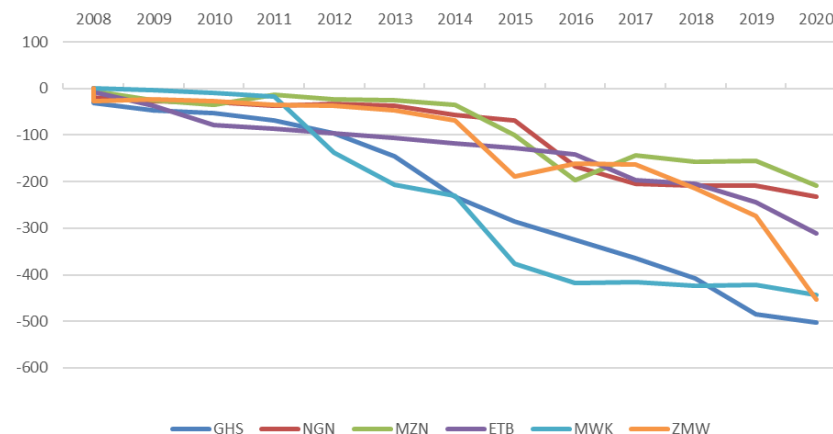
### A Sustainable food value chain:

- ✓ Energy transition across the food system and value chain, increasing productivity, reducing losses and footprint, improving livelihoods;
- ✓ The case for small-scale agriculture for food security is particularly relevant for Asia and Africa, both regions with the largest underexploited potential for yield increase;
- ✓ The goal to creating shared value (CSV) at the bottom of the pyramid, linking future corporate profits with engagement with the next/last mile smallholder farmers.

### Risk Return Proposition that Enables Private Investment



### The case for LCY financing: volatile currencies in SSA and their cumulative depreciation



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# Thank You!