

# **THE ENERGY-LIVELIHOODS ECOSYSTEM IN HUMANITARIAN SETTINGS**

**FINANCE, TECHNOLOGY SUPPLY CHAINS, MARKET LINKAGES AND STAKEHOLDER ROLES**

# Humanitarian settings

## Why Ecosystem Approach?

Humanitarian situations affect approximately 120 million people every year and currently there are around 70.8 million forcibly displaced people living worldwide, a figure which has increased significantly in recent years.

Approx 85 percent of refugees in camps burn biomass such as firewood for cooking, and some 97 percent have limited or no access to electricity

**How do we design programs which have a sustained impact?**

**How do we move from short-term project level interventions to long-term programs which focus on developing local stakeholders which ensure sustainability?**

**How do we ensure that limited financial resources are utilised in the most efficient manner?**

**How do we create an enabling environment that allow for multiple players to engage with humanitarian settings?**

# **Humanitarian settings**

## **Contextualizing Sustainable Energy Interventions**

- 1. Causes of disaster**
- 2. Factors determining community typologies**
- 3. Current Humanitarian clusters and efforts**
- 4. Integration of Energy ecosystem and solutions**

# Humanitarian settings

## Contextualizing Sustainable Energy Interventions

Climate Risks

Social Conflict

**1. Causes of disaster** ..... Economic Crisis

2. Factors determining community typologies

3. Current Humanitarian clusters and efforts

4. Integration of Energy ecosystem and solutions

# Humanitarian settings

## Contextualizing Sustainable Energy Interventions

1. Causes of disaster

**2. Factors determining community typologies** .....

3. Current Humanitarian clusters and efforts

4. Integration of Energy ecosystem and solutions

Timeframe or State of Forced Displacement

- Emergency
- Post Emergency
- Protracted

Infrastructure and Settlement Types in Forced Displacement

# Humanitarian settings

## Contextualizing Sustainable Energy Interventions

1. Causes of disaster

Mitigation, Preparedness and Building Safety Nets

2. Factors determining community typologies

Protection, Stop Gap Support, Aiding via Local Economic Activity

**3. Current Humanitarian clusters and efforts** .....

Rehabilitation and Building Safety Nets

4. Integration of Energy ecosystem and solutions

# Humanitarian settings

## Contextualizing Sustainable Energy Interventions

1. Causes of disaster

Access to Energy, Technology and Local Supply Chains

2. Factors determining community typologies

Access to Debt, Equity and Grant Finance

3. Current Humanitarian clusters and efforts

Training, Capacity Building and Incubation

**4. Integration of Energy ecosystem and solutions**

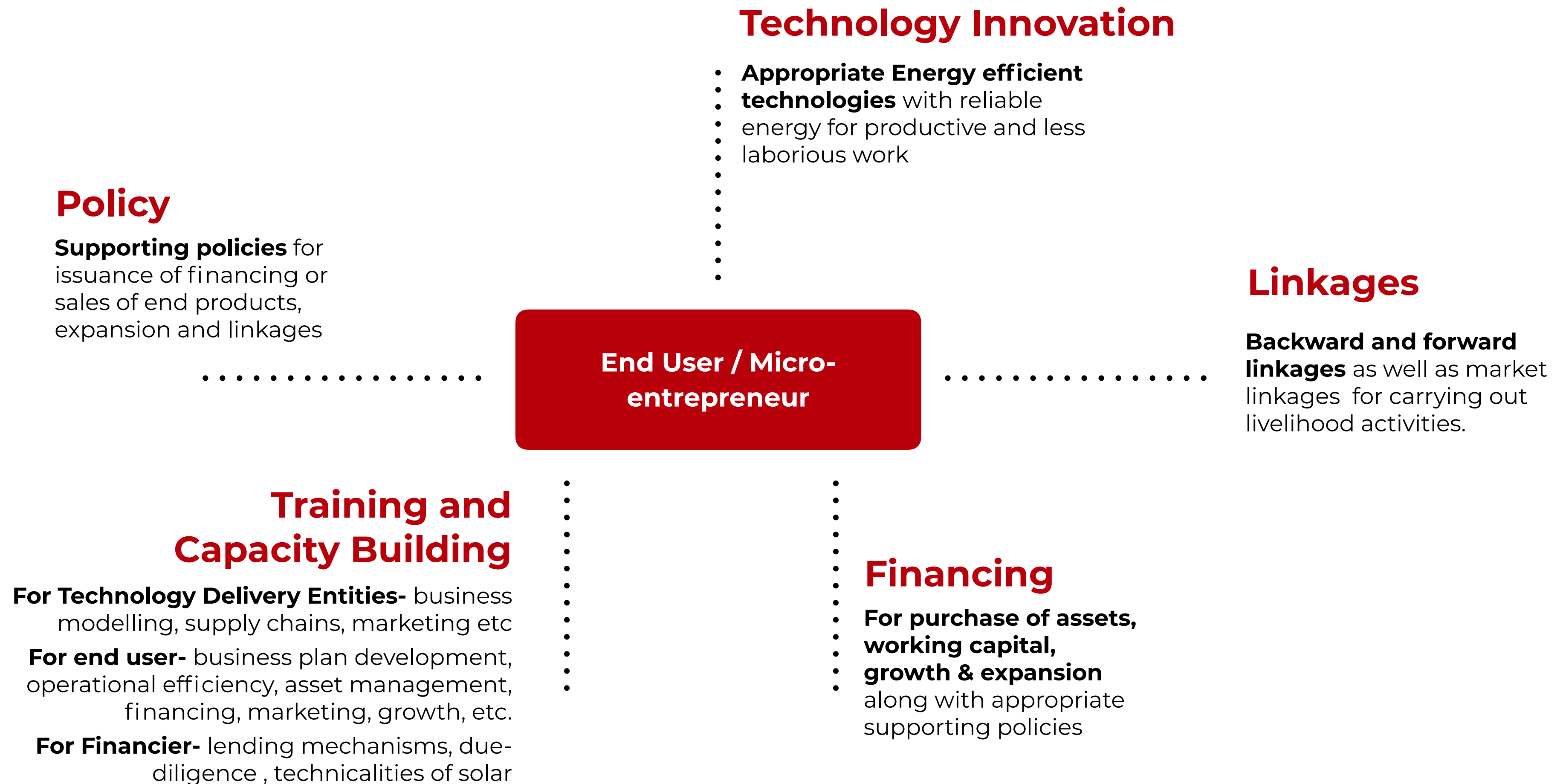
.....

Linkages to Markets and Support Systems

Development and Resilience  
Enabling Policies and Legal Frameworks

# Inclusive Ecosystem Approach

By SELCO Foundation





# Inclusive Ecosystem Approach

By SELCO Foundation



## Technology Innovation

Appropriate Energy efficient refrigerator with reliable energy to store milk products

•  
•  
•  
•  
•

## Policy

Supporting policies for issuance of financing or sales of end products, expansion and linkages

•••••

**Grocery Store using Sustainable Energy**

## Linkages

Backward and forward linkages - supplier for milk, dairy products, juice, cold drinks and market for sales

•••••

## Training and Capacity Building

- For Technology Delivery Entities- supply chains, spare parts and servicing
- For end user- business plan development, operational efficiency, asset management, financing, marketing, growth, etc.
- For Financing agencies- financing mechanisms, linkages with capacity building and technical entities

•  
•  
•  
•  
•  
•  
•  
•  
•

## Financing

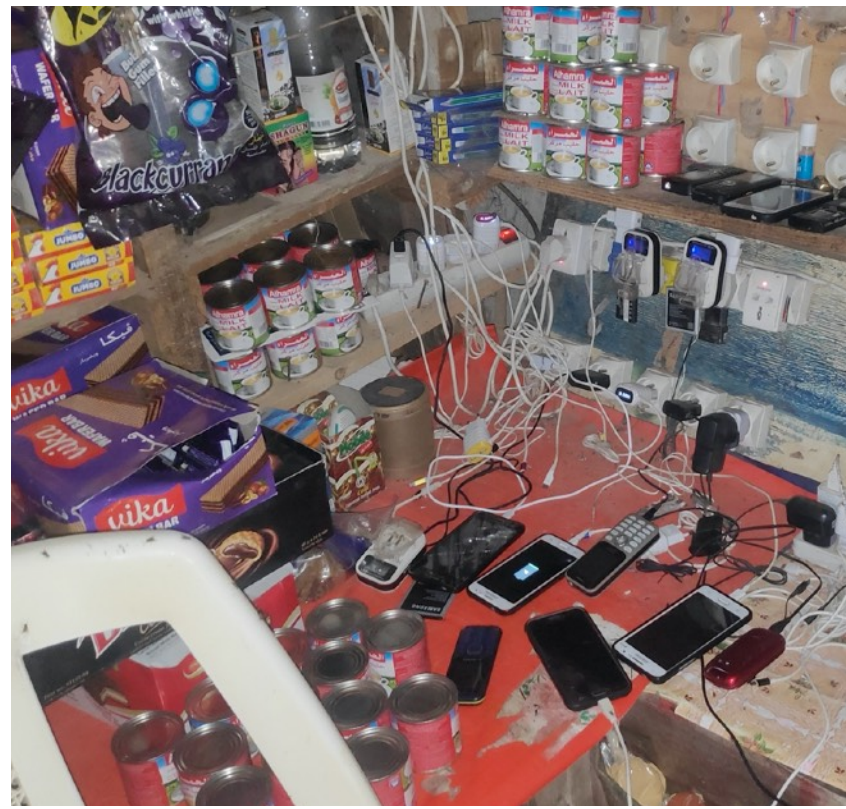
- For purchase of assets, working capital, growth & expansion along with appropriate supporting policies

•  
•  
•  
•  
•  
•  
•  
•  
•



# Understanding **Livelihood Types** and **Role of Energy Access**

## **Varying Ecosystem Requirements**



**1**

Livelihoods where **services** are provided to local communities



**2**

Livelihoods where goods are **traded**



**3**

Livelihoods where goods are **manufactured** and processed



**4**

Livelihoods where **primary production** takes place



# Ecosystem Development

## Activities at different stages of the Project

### PRE-IMPLEMENTATION

- Inputs for Products
- Market linkages
- Business Model Development
- Technology mapping as per need (features and output)
- Stakeholder mapping (technology provider, repair and servicing, capacity building etc)

### IMPLEMENTATION

- Site Preparation
- Procurement and Quality Installation
- On-site Operations and Maintenance Training

### POST-IMPLEMENTATION

- Operational Hand-holding
- Diversification
- Expansion and Maintenance
- Cashflow Monitoring and Managing Working Capital

# Building the **Ecosystem for Sustainable Energy and Livelihoods**

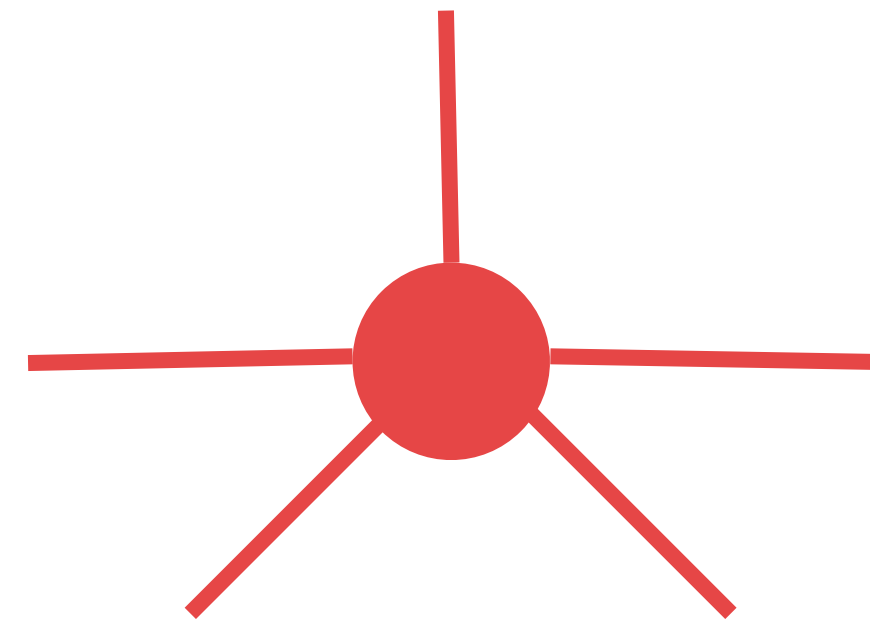
What technology solution is available, and who provides it? Are there local **technology + energy providers**?

What is the **livelihood policy/energy environment**? How can risks be mitigated and opportunities capitalized?

Which livelihood **input/output linkages** are required and who builds them?

What livelihood/entrepreneurship **capacity building** needs are there and who provides it?

What is the cashflow? And what could be the business model? What type of **financial institutions and financial products** are needed?





# Ecosystem Development

## Activities at different stages of the Project - Solution Development



### Agri Processing in Mature Ecosystem

- Improve efficiency for farmers
- Savings from food wastage
- Better market negotiation



### Agri Processing in Weak Ecosystem

- Reduces Farmer Transaction Costs
- Food Security
- Collective Asset to Boost Local Market



# Ecosystem Development

## Stakeholders and Levels of Intervention

### Hyper Local Stakeholders

- Financial literacy programs and Entrepreneur Development Programs for capacity building
- Incubation facilities for micro and small enterprises with seed capital and facilities such as training cum production centres
- Enterprises and NGOs are trained in working with end users and financiers for DRE solutions

### Other Stakeholders

- Guidelines for financing of assets in humanitarian settings (capital costs versus working capital)
- Designing programs which keep ecosystem stakeholders in mind and incentivise partnerships

# **An Ecosystem for Sustainable Energy Access**

## **Mapping Stakeholders**

- 1. Who are the stakeholders?**
- 2. What functions do they perform?**
- 3. How many of them exist?**
- 4. How viable are the value proposition or business models?**
- 5. What is the transaction from the stakeholder (row) to stakeholder (column)? Size and frequency of transaction? How formal is it?**

About  
**SELCO Foundation**

**Since 2010**

- Inclusive innovation to meet end-user needs
- Incubation of local energy enterprises
- Institutionalization- working with partners across health, livelihoods etc.
- District level, State level Programs (India)
- National level advocacy (India)
- Global Replication and Knowledge Sharing

---

**Reach out to us for further information, resources  
and support for DRE implementations**

**Rachita Misra**

Associate Director, Knowledge and Communication  
rachita@selcofoundation.org

**www.selcofoundation.org**  
**info@selcofoundation.org**