VEF Virtual Series

Accelerating Energy Transition
Value Chain Upgrading

Setting the scene
Background
Productive Use of Energy

• PUE is not a new concept but receiving more attention
• Key barriers prevent PUE from scaling
• Focus on market research, R&D, early-stage grant financing and piloting business cases
• Different definitions exist
PUE in agricultural value chains

- Critical sector for productivity increase
- Applications in production, post-harvest, processing, distribution and waste to energy
- $11.3B addressable market for agricultural PUE products in Sub-Saharan Africa
- Solar water pumps and cooling are most mature technologies
EnDev Learning & Innovation

Community of Practice – Productive Use of Energy

- Facilitating learning & exchange on successful approaches
- Analysing various PUE promotion approaches through mapping and interviews
- Supported by six EnDev implementing partners:

PUE project categorisation

**Targeting specific groups**
- (Woman-led) MSMEs
- Communities/villages
- Smallholder farmers

**Value chain approach**
- Agriculture
- Aquaculture
- Other

**Focus on supply side & technology**
- R&D grants
- Quality assurance
- Product catalogues

**PUE as one element in broader approach**
- Energy access projects
- RBF programs
Case: EnDev Bolivia

• Since 2005
• Transitioned from energy access focus to include promotion of productive use for food production
• Success:
  o Tailored support to entrepreneurs, flexible subsidy.
  o Enhanced food security, agricultural diversification, increased yields
• Challenge:
  o Product-centered project design, lack of holistic perspective
  o Additional need for support to entrepreneurs
Case: Climate Resilient Agriculture for Tomorrow (CRAFT) - SNV

- Implemented since 2019 in Uganda, Kenya, Tanzania
- Value chain approach
  - Energy needs assessment per value chain component
- Success: Integrated approach, private sector led, analysing business cases
- Challenge: Finding appropriate and commercially viable solutions, addressing affordability barrier
Ecosystem approach
Ensuring an integrated approach

Distribution, marketing, awareness creation, access to finance
Focus on core capability and partner with experts on other levels

Detailed analysis
Assessment of demand, available technologies, value chains energy needs, willingness to pay
Focus on viable solutions and potential to scale

Supporting adoption
Support PUE adoption through skills training, capacity building, financial incentives, unlocking investment
Focus on sustainable adoption of PUE products

Ensure detailed monitoring
Adopting tailored indicators to measure PUE
Focus on (mobile-based) longitudinal data collection to measure socio-economic impact in the long-term

Stimulating demand

Enabling market growth
Development of quality standards for PUE
Development of policies and regulations to stimulate market growth
Development of PUE M&E framework

Increasing supply
R&D to improve technology and design
Grant and business development support to drive innovation
Consumer research to close the loop between product design and distributors
Access to finance to kick-start and scale up business operations
Recommendations
Recommendations

• Increase stakeholder coordination
• Multi-disciplinary project teams
• Sensitisation on PUE in the development sector
• Project designs aimed at scaling
Our donors

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Thank you for your attention!

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