Practical Examples of addressing energy poverty in institutions and households:

"Solar Pledge East Africa" & "Sustainable Clean Energy" programme



01.04.2025 Clemens Griesauer, horizont3000

## Content

- 1. Dimensions of energy poverty
- 2. Project examples:
  - Solar Pledge East Africa
  - Sustainable and Clean Cooking
- 3. Contribution claim model for carbon finance
- 4. Key take-aways



## Causes of energy poverty

### horizont 3000

#### **Definition**

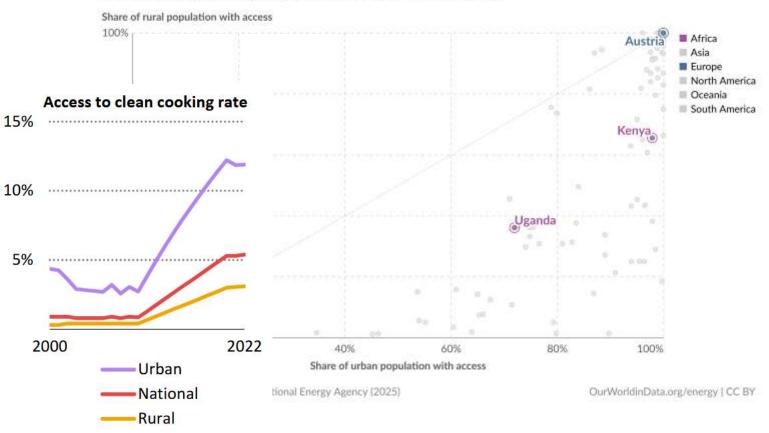
Lack of access to reliable modern energy services and products, including electricity and clean cooking facilities, which are essential for human wellbeing and economic development.

- Supply challenges
- Affordability
- Operation and maintenance
- Decision making

#### Share of rural vs. urban population with electricity access, 2022



Having access to electricity is defined in international statistics as having an electricity source that can provide very basic lighting, and charge a phone or power a radio for 4 hours per day.



Source: IEA (2023).

IEA (2023): Uganda Energy Policy Review https://iea.blob.core.windows.net/assets/e32967

## Implications of energy poverty

horizont 3000

#### Health impacts

40% of health facilities in SSA have electricity access;3.2 mio deaths/y due to indoor air pollution

#### Education

31% of primary schools in SSA with electricity access

#### Low productivity

2 - 4% GDP loss due to unreliable electricity supply in SSA

#### Women/ girls safety & wellbeing

unsafe at night without lighting; women/girls responsible for firewood collection in 94% of Ugandan households

#### Deforestation

Forest cover decline in Uganda: from 24% (1990) to 9% (2018)

## Solar Pledge East Africa (SPEA) Empowering Catholic Dioceses and Changing Lives

#### Context

Catholic Church 2<sup>nd</sup> largest service provider in East Africa – Education and Health Sector, especially in rural areas. Underutilised potential of PV for reliable electricity in region.

### **Our Approach**

- Renewable Energy Support platform
- Integrated Energy planning
- PV for institutions
- Awareness raising

### https://www.horizont3000.org/en/ projects/d-24-202



Austrian Development Cooperation

With funding from



## SPEA Pilot Project 2024-2027 Diocese Gulu (Uganda) & Diocese Lodwar (Kenya)

### **Objectives**

- Establish support platform
- Energy mainstreaming in 2 Dioceses
- Capacity strengthening
- Installation and repair of PV systems

### Insights

- Maintenance challenges (staff capacities)
- Short lifespan of batteries (lead-acid)
- Planning deficit (systems undersized, lack of repair funds, etc)







With funding from

Austrian Development Cooperation



Dreikönigsaktion Hilfswerk der Katholischen Jungschar



horizont 3000

## Laudato Si' (& Paris Agreement) Jubilee Project

#### Embedded in SPEA program, utilising the platform and its integrated approaches

### **Focus on schools**

- Awareness raising & promotion of environmental stewardship
- Climate Action Planning
- Gender sensitivity
- PV installation

Funding target: 500,000 €











horizont 3000

[your logo could be here]

## Clean cooking projects

("Clean and Healthy Cooking" & "Sustainable Clean Energy")

### Context

Inefficient and unhealthy cooking practices common in Uganda. High expenditure on firewood. Deforestation. Fuel- efficient stoves reduce smoke exposure and save > 60 % firewood, or 5 t CO2e per household per year.

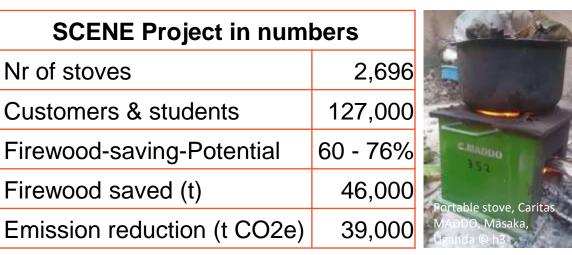
### Approach

- Durable stoves
- Chimney for smoke reduction
- Affordability (subsidised price)
- Repair services
- Financially sustainable due to income generation from Carbon credits











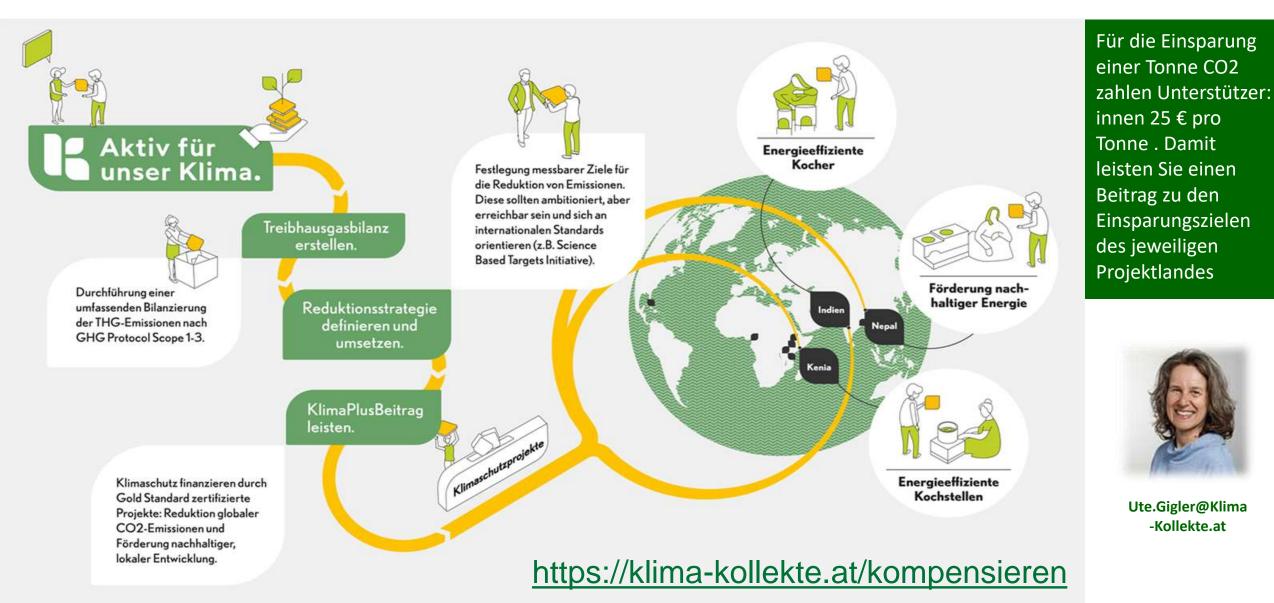
## Video: Clean and Healthy Cooking Project

horizont 3000

## Efficient and healthy cooking – 3 min video https://www.youtube.com/watch?v=p0bKs6z\_1EQ

### Treibhausgasbilanzierung & KlimaPlusBeitrag



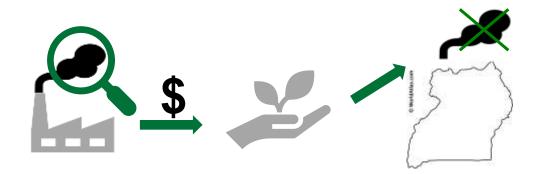


## **Contribution claim vs Offsetting**

- Focus on **impact**, not compensation
- Emphasizes transparency and climate integrity
- Aligned with **Paris Agreement** (no double counting)

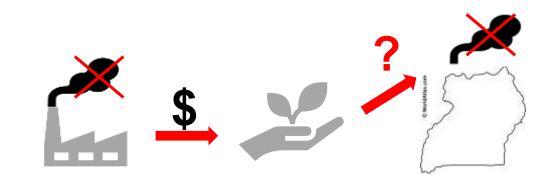






#### **Contribution claim:**

"We financed a project in Uganda that removes 10,000 tCO2e. We do not use these reductions to offset our own emissions but to **contribute to global climate goals**."



#### **Offsetting:**

"We financed a project in Uganda that removes 10,000 tCO2e. This is equivalent to our emissions, thus our business is operating **carbon neutral**."

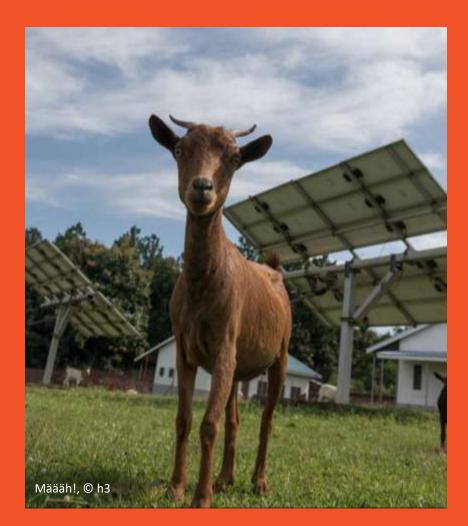
## Key take-aways

- Solar energy has great potential in rural areas

   but institutions require external support for management.
- Inclusion of women in decision making is crucial for developing needs-based, sustainable solutions.
- Transitional technologies play role in reducing energy poverty, particularly in cooking energy.
- Carbon finance can facilitate access to energy, supporting scalability, affordability, and longterm viability.
- To (re-)gain trust and enhance impact, carbon finance should embrace the "Contribution claim" approach.



# Thanks for your attention and interest!



clemens.griesauer@horizont3000.at

