SIGMA:
Introduction and main insights

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Housekeeping

Toilets: just outside the Clandon Suite, out the doors and to the left.

No fire alarm drills planned for today

In the event of fire/ emergency: the assembly point is in the main parking lot

- Use the nearest emergency exist to gather at the assembly point

Phones should be in silent mode

We are recording the event and taking photographs. We take your participation as a consent for this.

Those online, please keep your microphones muted. Please use the chat for sharing comments. We'll give an opportunity to take comments and participate when appropriate.

Social media: Please follow us and tag us on Social Media. We also love to hear your thoughts and comments.

just scan one of the QR codes at the registration desk or one of the banners during the break if you haven't already

In this presentation

Overview

Main findings

Reflections on the future of mini-grids

Project overview

SIGMA – Sustainability, Inclusiveness and Governance of Mini-grids in Africa

Started from March 2020; ending on 1st March 2024

Collaborative project

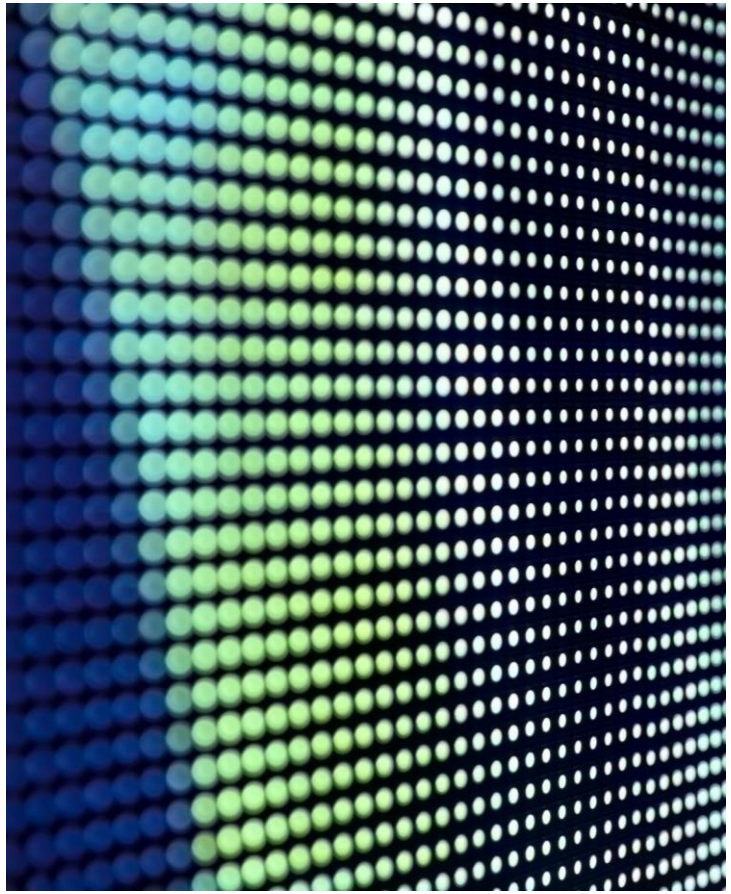
- UK teams – DMU, Surrey, Sussex, IDS, OU and Huddersfield
- International teams – ECREEE, ICEED (Nigeria), CFIA –ISS (Kenya), TaTeDo (Tanzania) and a consultant from Senegal

Advisory Board – led by Dr Sanusi Ohiare (ex-REA)

Impacted by COVID and funding cuts

Research focus

Evidence base	• Develop an evidence base of mini-grid performance in Africa
Analytical framework	• Develop a framework to analyse political economy of energy access and a sustainability framework of mini-grids
Case studies	• Develop country case studies focusing on sustainability, inclusiveness and governance of mini-grids in four countries
Dissemination	• Develop collaboration, build capacity and disseminate the insights from the project



Activities undertaken

Extensive review of literature

– outcome presented in a webinar on 4th February 2022

Mini-grid database– led by ECREEE, data on mini-grids was compiled from available sources

Framework for mini-grid performance and sustainability analysis –

- DEA framework
- Indicator based framework

Fieldwork in Nigeria, Kenya, Tanzania and Senegal – stakeholder interviews, visits to mini-grids

Analysis of country cases

Collaboration, networking and capacity building

Dissemination

Insights from the project

Limited technical sustainability – short-term focus;

Long-term perspective missing;

Inclusiveness not well observed;

Wider socio-economic benefits have not reached all equally;

Business viability is hardly demonstrated;

User satisfaction remains questionable.

Reflections on future mini-grids development

Sustainable mini-grids are hard to find

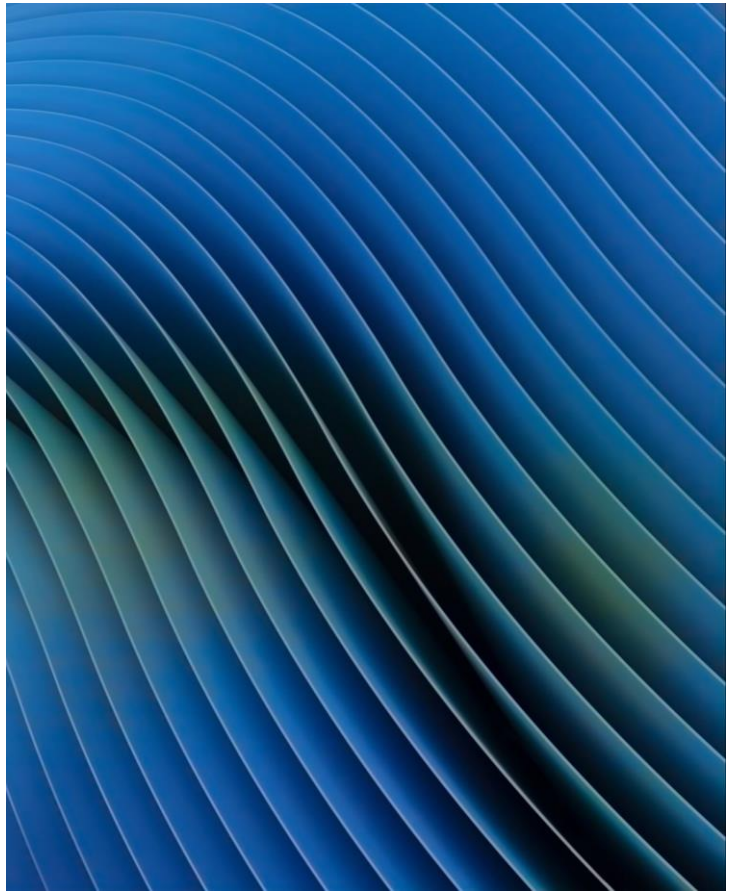
- Technical, economic, social and governance dimensions not working in harmony
- Pieces of the jig-saw puzzle are still missing
- A whole system approach is still not visible for mini-grid development

There is a need to continue the conversation on the tension between state vs. market solutions.

Value chain integration

Expansion to MW scale capacities

Centralised procurement and implementation plan



Outputs and outcomes

- Paper in Energy policy
- Conference papers
  - 3 papers at 4th International Conference on Solar Technologies & Hybrid Mini Grids to improve energy access - s-@ccess 2023, held in Mallorca, Spain from 26 to 28 April 2023
  - Presentation at the Non-Road Mobile Machinery Electrification and Hybridization Forum - hosted by the Leadvent Group in Berlin
- Working papers
- Presentation at COP27 and presence in COP28
- Poster at the Gender and Inclusion Summit 2022

- Webinars
  - 4th February 2022
  - 17th May 2022
  - 31st March 2023
  - TaTeDo Webinar 2nd February 2023
  - Nigeria High level policy dialogue 26th October 2023
- Collaborations
  - Rural Electrification Agency – Nigeria
  - PeopleSun

Thank you for your attention

Any queries?

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