Bridging Decentralized Energy Planning with Neighbourhood-level Innovations in Cities of Africa:

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The sad reality of a changing world

- In Memory of Community participants – South Africa
## Country Case studies

### South Africa
- **Enkanini: iShack**
  - 11 Million Euros
  - PPP mode
  - Solar Home System (SHS)
- **Lynedoch Eco-village (Eskom)**
  - State funded
  - State managed and operated
  - Mini-grid (grid tied)

### Ghana
- **Bukom James Town**
  - Donor funded (SDI)
  - Community-Led (Women-led)
  - Solar Lanterns
- **Amui Djor**
  - Donor Funded (SDI)
  - Community-led
  - Mini-grid (Grid tied)
Project Objectives

1. Empower communities with leadership skills to advocate for pro-poor energy policies
2. Provide technical know-how on emerging decentralised energy systems
3. Influence the national energy system with bottom-up neighbourhood level experiment
4. Transnational best practice sharing with other African cities beyond Ghana and South Africa
5. Address knowledge gap by integrating practical insights into SDGs in cities across Africa.
Project Partners

• **Slum Dweller International (SDI)**
  1. Ghana Federation for the Urban Poor (GHAFUP)
  2. Peoples Dialogue on Human Settlement

• **Stellenbosch University**
  1. Sustainability Institute
  2. innovation Shack (iShack)
  3. Center for Complex Systems in Transition
TRANSFORMATIVE RESEARCH (TTDR)

Context Matters!

Insights:
- Methodology
  - Pragmatic
  - Guiding Principles
  - Method
- Logic & Reasoning
  - Deductive
  - Integrative
  - Abductive
  - Transformative

Transductive Logic

Guiding Principles
1. Aligning for emergence
2. Addressing Complexity
3. Structuring the system
4. Expatriation
5. Recursive, multi-loop learning

Methods
- Sense maker
- Able to connect with people
- Where they naturally tell stories...

Enkaneni Case Study

Phase 2
- Interdisciplinary Team
- How to redesign shacks?

Phase 3
- Implementing
- The gap, the need

Phase 4
- Living Laboratory
- Invited to stay over?

Phase 5
- Mini-grid
  - Self-set up
  - Business opportunity

Learning Journey

Work in progress...
Key outcomes

South Africa

• Inspired a replication in other settlements in the Western Cape.
• Avoiding ‘top-down’ municipal-driven delivery, rather establishing consumer acceptance on the ground and then lobbying municipality for support.
• Innovative financing scheme to establish community ownership and interest.
• Develop a ‘social process’ that leads to establishing a ‘social capital’
• Free Basic Electricity

Ghana

• Communities were prepared and willing to own the project
• Community consultation, engagement and awareness paved the way for the effective introduction and subsequent delivery of the solar PV lamps.
• Community ways of knowing, culture and value systems also offered an avenues through which new knowledge was created.
• Renewable Energy Open Forum offered an open platform of engagement with stakeholders at various level of the project.
• Built enterprise capacity within the social process
Key Outputs

• Two papers submitted for Publication
  • Bloem, S., Koranteng, K., and Swilling (2020)* Taking energy democracy to the street: socio-technical learning, institutional, dynamism, and integration in South Africa – Energy Research and Social Science (ERSS)
  • Ambole, A., Koranteng, K., Njoroge and Luhangala, D. L., (2020)* A review of energy communities in sub-Saharan Africa as a transition pathway to energy democracy

• Three outstanding papers (internal reviews)
• Video output of the four country case studies inspired by the virtual synthesis workshop
Key lessons learned

• Society, science and policy workshop revealed the following lesson
  • Energy policies lack a compassionate dimension
  • Communities lack an understanding of policy process
  • Scientific research has limited impact on the two domains (Society and Policy)

• Trust building and patience is critical in the delivery of social intervention in informal communities.

• Understanding the process and allowing communities to organically learn is essential for successful project

• Don’t over promise on research deliverable (Manage expectations)*
How you see the future of your project

• Building on the knowledge embedded within the research communities – Follow up grants to generate more outputs

• Strengthen collaboration among cities and community based organisations and colleagues in various countries

• Insights to be shared among development partners to better understand how to fund grassroot initiative and interventions

• Policymakers need to create room for alternative power relationship observed in the energy democracy literature.
Future of the Project
Thank you

• Further question and comments