



WRI INDIA

This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

EQUITY CONSIDERATIONS TO INCORPORATE CROSS SECTORAL APPLICATIONS IN MINI GRID

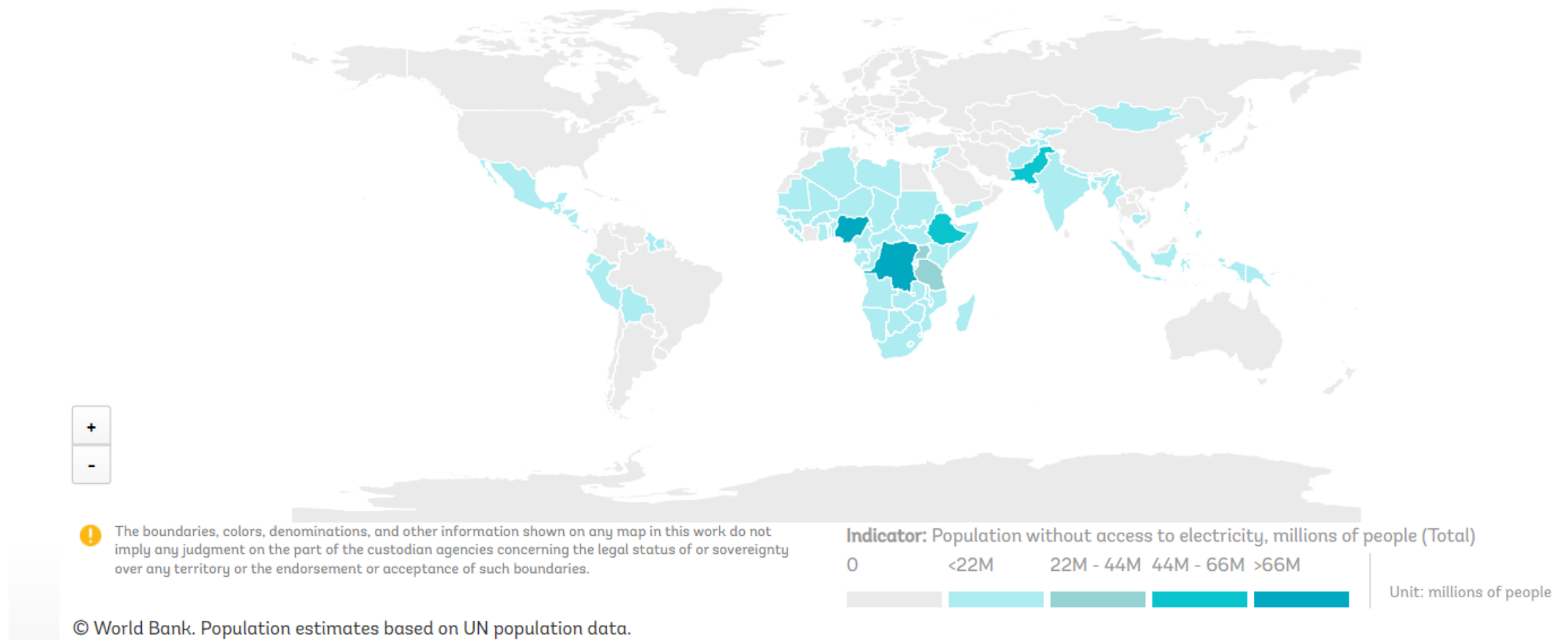
Photo credit: Anamika Dutt

Energy is interconnected with 125 out of 169 (74%) SDG targets



Improved electricity access can catalyse socio-economic development

Vast populations living without access to energy



About 733 million people lack access to electricity in 2020

Electricity access situation in India

Saubhagya Scheme:

- 100% electrification of all 'willing' households by Mar 2019
- while 'Access' has been the goal, it does not always equate to
 - adoption and use
 - reliability and quality of power
- limited to households



Mini-Grids in India

Over 14,000 mini-grids projects in India, as of 2019

Why have mini-grids been favoured?

- Predictability of Power Supply (Reliability)
- Quality of Power Supply

Why has the scale been limited?

- Lack of 24/7 power provision for all types of loads
- Power at tariffs higher than conventional grids
 - 5 - 6 Rs./unit for conventional, 4 – 8 times higher for mini grids

Economic and Social Equity

- Affordability
 - Connection costs
 - Tariff costs
 - Need for regulation
 - End-user financing for productive-use appliances
- Access to Services and Opportunities
 - Health and Education
 - Employment
- Building community infrastructure
 - Who can access these?
 - Unique business models



Community Ownership

Village Energy Committee (VEC):

- decision-making authority on matters across the spectrum of mini-grid operations
- formed by community members – participation with gender balance and representation of all sections of society
- Multiple responsibilities:
 - planning, installation
 - tariff determination, setting and payment collection,
 - operation and maintenance
 - decide what productive loads get connected



Need for Local Stakeholders

Work with grassroot development organizations:

- understand resource availability (finance, existing practices, technology awareness)
- to map community needs and aspiration
- Help set up VECs and build capacity within the community for project to be sustainable.

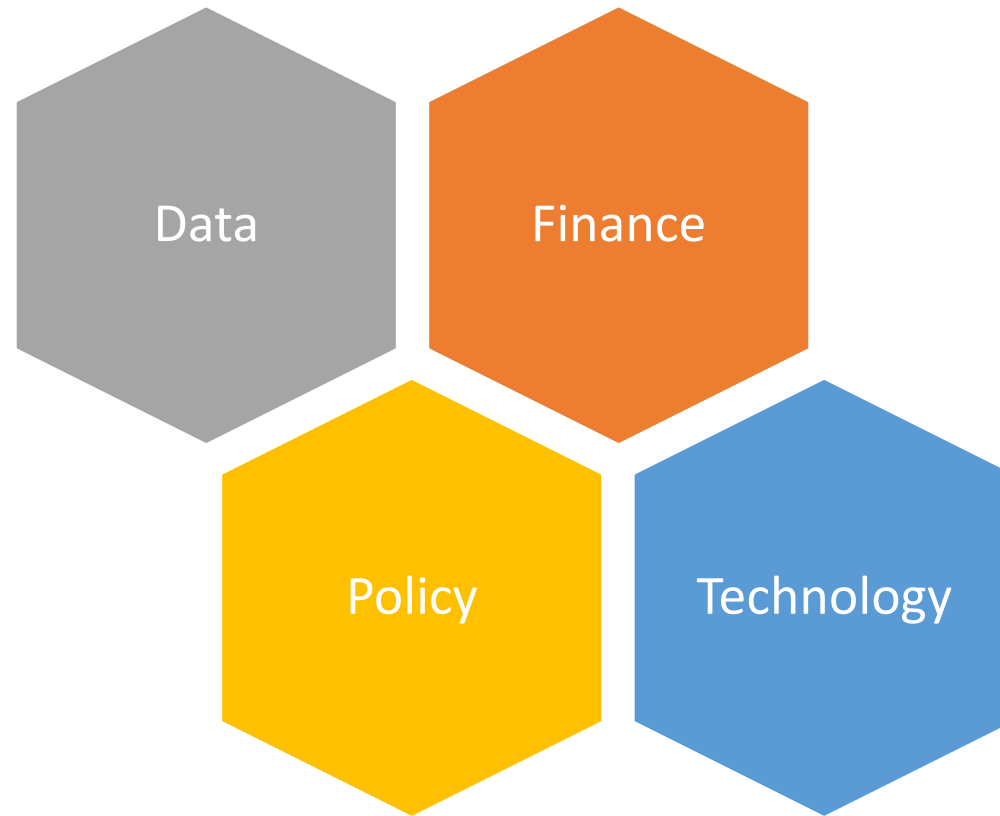


Conversion v/s Incubation of Productive Uses of Energy (PUEs) Appliances

- Selection of entrepreneur for PUE demonstration:
 - Converting existing PUEs – diesel to electric
 - Target existing entrepreneurs
 - Incubating new PUEs
 - Create new entrepreneurs



NEED FOR INTEGRATION ACROSS 4 PILLARS





THANK YOU

