

Building Markets for Energy Access

A Value Chain Analysis of Energy Market Systems



Why are 78% of African solar lantern sales restricted to to three countries?

Why are minigrids not taking off despite wide recognition of needs for them and support for initiatives/businesses?

Energy is infrastructure. Generation is often centralized, but is becoming decentralized. Energy is often considered a product, but is actually a service.

Energy is complex

Creating vibrant markets for energy access can be even more so.

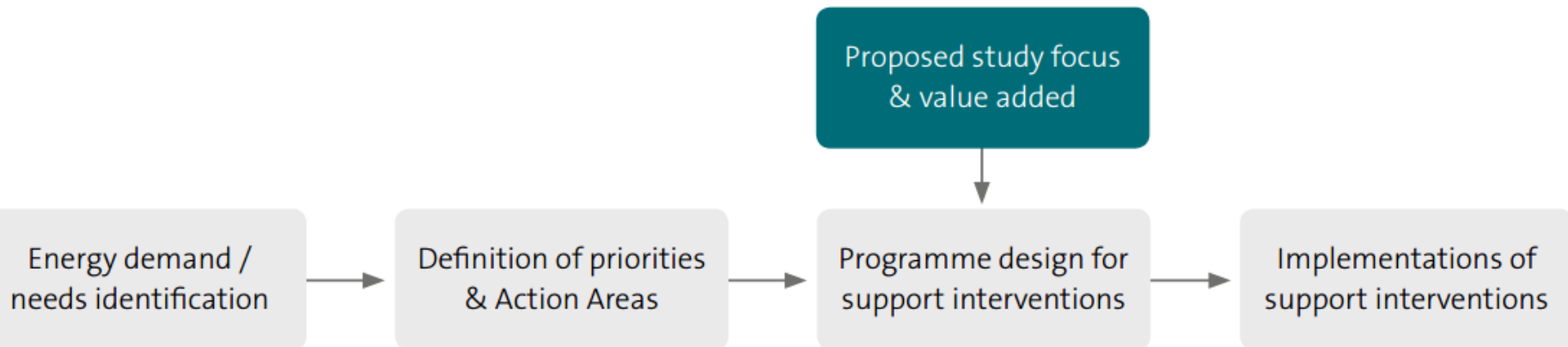
A scientist in a white lab coat is focused on looking through a microscope in a dimly lit laboratory. The scene is illuminated by a desk lamp, creating a dramatic, high-contrast atmosphere. The scientist's face is partially in shadow as they concentrate on their work. The background shows a textured wall and various laboratory equipment, including a rack of pipettes and a small vial.

***Necessary but
not sufficient***

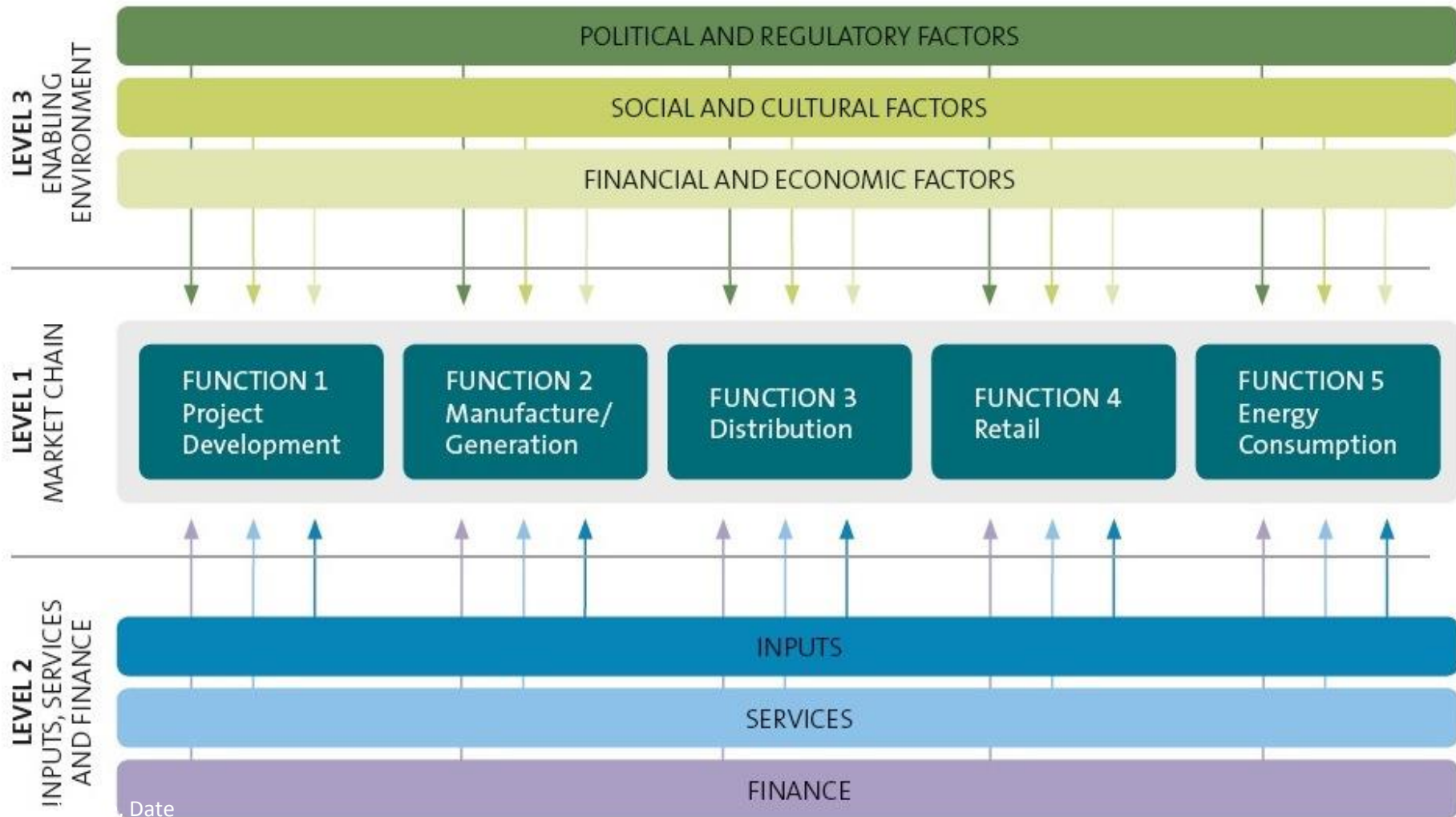
Energy Market System Assessment Framework

1. Simplifies and make sense of this complexity
2. Systematically analyses energy market systems to deliver services to households, communities and businesses.
3. Identifies critical components and actors of each energy market system, including how they operate and interact.
4. Identifies barriers in each energy segment of the market system and interventions for overcoming them.

Focus of the framework



Stage 1: Energy market system mapping



Stage 2: Identification and analysis of potential supporting interventions

Intervention Type	Intervention Description
Technical Assistance (TA) Interventions	
Business Development Support	Increased capacity of market chain companies to develop their business models.
Technical Support	Increased capacity of market chain companies on technical issues.
Policy Support	Increased capacity of government departments to overcome a particular enabling environment factor.
Advocacy Support	Increased capacity of relevant stakeholders to allow them to participate in the development of particular policies and regulations as well as ensuring they are enforced.
Awareness-raising Support	Increased capacity of end-users to understand the benefits of energy products and appliances and increase their uptake.

Stage 2: Identification and analysis of potential supporting interventions

Financial Assistance (FA) Interventions

Direct Grant Financing Support

Provision of grant funding to directly or indirectly subsidise the costs of establishing an energy delivery system (e.g. a mini-grid or establish a stove production facility), including tax concessions.

Loan Financing Support

Provision of loan financing, directly or through intermediaries (e.g. local banks or micro-finance institutions).

Equity Financing Support

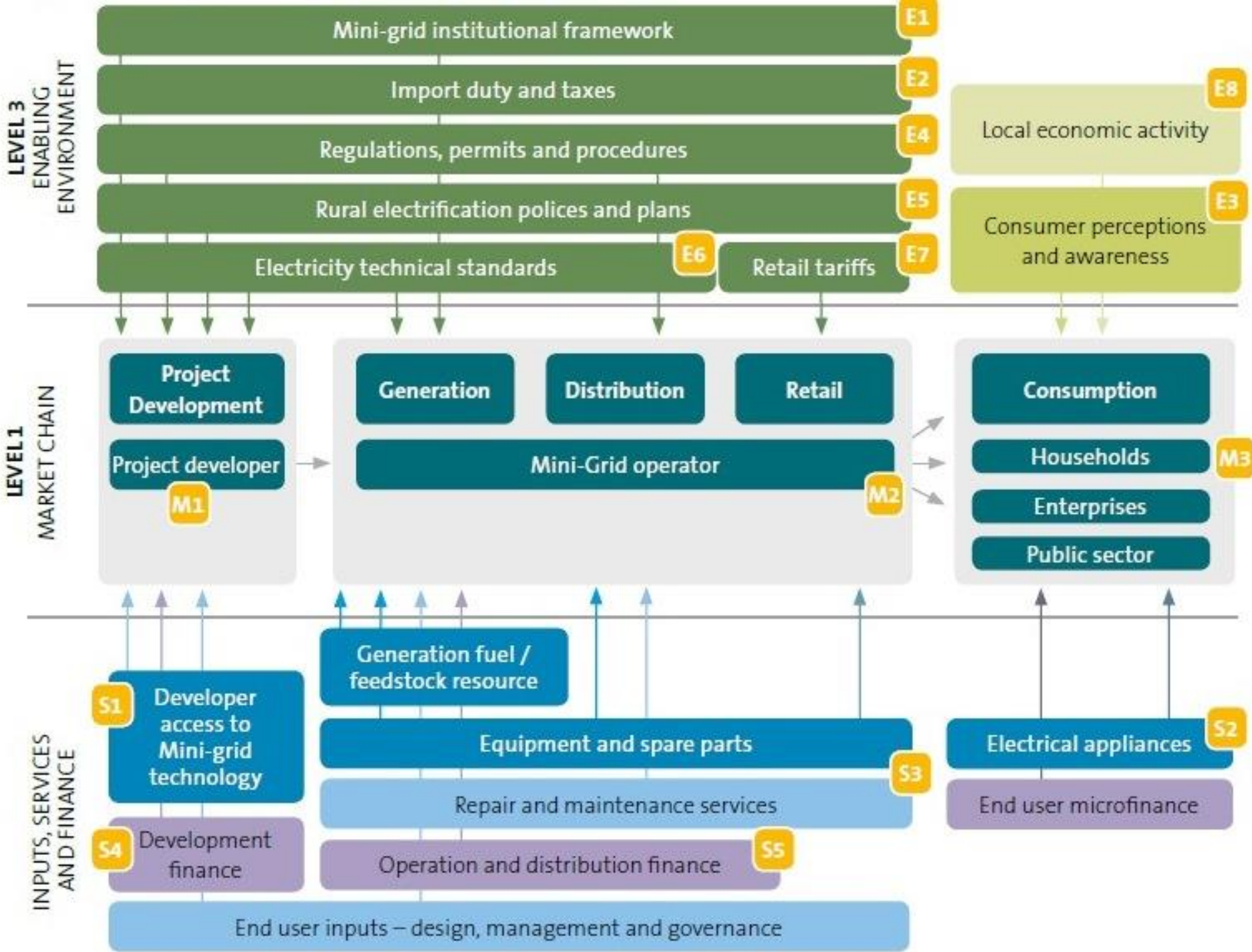
Provision of financing for equity investment in companies, again directly or through intermediaries (e.g. dedicated energy investment funds).

Complementary Financing Support

Provision of complementary financing (e.g. policy risk mitigation, currency risk mitigation, loan guarantees etc.).

Energy Market Systems

- **Electrification Mini-Grids.**
- Solar PV Home Systems.
- Solar PV Lanterns.
- Biomass Cookstoves and Fuels.
- LPG Stoves and Fuels.

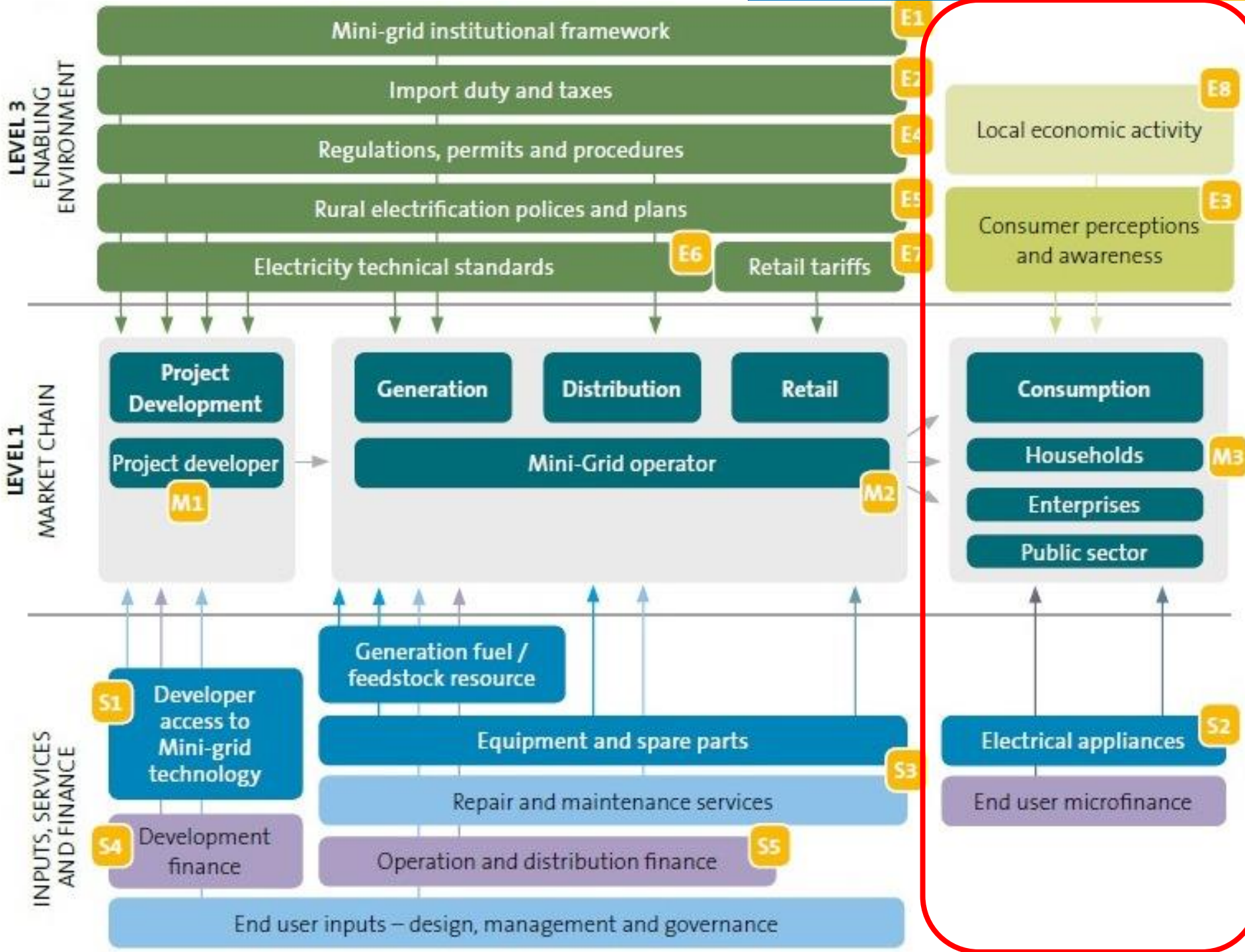


Electricity Mini-Grid Potential Support Interventions

Identification	Market System Level Issue	Responsible Actor	Support Intervention	Category
Level 3 – Enabling Environment				
E1	<p>Lack of Rural Electrification Agency and Government Authorities to Support Mini-Grid Deployment</p> <p>An institutional structure to oversee and enable the large scale deployment of mini-grids, including a rural electrification agency and a regulatory agency, is essential. Clearly defined roles and responsibilities as well as coordination between the various institutions that support rural electrification are required. Mini-grids should be given resources proportionate to their expected contribution to achieving universal access to electricity.</p>	Ministry of Energy, Rural Electrification Agency, National Energy Regulator	Technical assistance to establish the structure, procedures, incentives, priorities and technical capabilities of government agencies.	TA _p
E2	<p>Lack of Supportive Importation Duty and Tax Policies</p> <p>The mini-grid market can be stimulated by reducing costs of mini-grid equipment or components through lower import duties and taxes.</p>	Ministry of Finance, Bureau of Customs.	Technical assistance to promote supportive trade and tax policies.	TA _p

In summary:

- Both energy poverty and energy markets are complex.
- *Building self-sustaining markets for energy access requires a holistic approach to understanding the different problems blocking progress in different contexts.*
- This framework offers a tested approach to overcoming these challenges.



Many thanks

Aaron Leopold

Aaron.Leopold@practicalaction.org.uk



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