

An inclusive strategy to trigger solar technology market: Case studies of rural distribution models from Ethiopia

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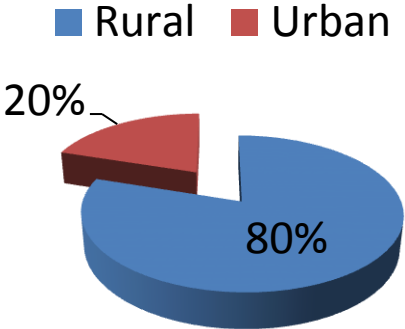
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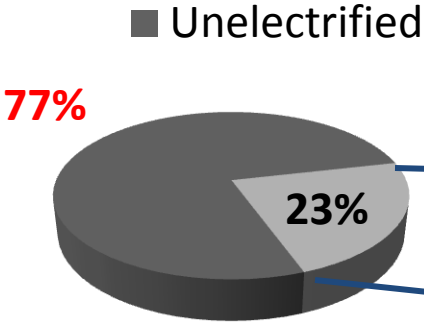
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Background

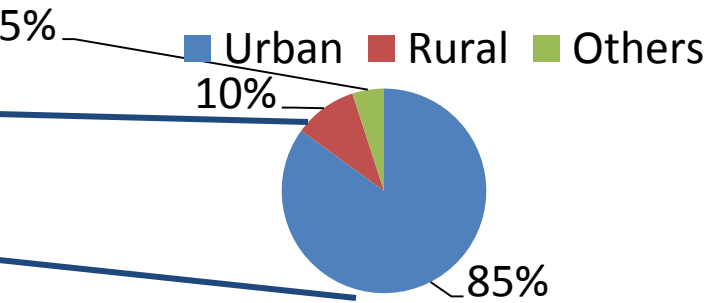
Ethiopia Population Distribution



Electricity Access in Ethiopia



Distribution of Electrified Population



Barriers to Off-Grid Energy Access

Solar PV Market Potential

52MW

Results Based Financing

Affordability

Accessibility

Awareness

Standards in quality and Consumer Understanding

Limited technical financial and marketing capacities at sub-national and local level

Ambiguity in Government Regulations

How can an under-developed market be activated?

DFID-TERI

The DFID-TERI Partnership Project is a collaborative action research, aiming to pilot scalable business models for provision of clean cooking and lighting solutions for poor households in Africa, especially in Kenya and Ethiopia. This is being achieved through;

- **Review of existing technological solutions and delivery models** and identification of barriers to the promotion of clean energy (lighting& cooking) options in sub-Saharan Africa;
- **Sharing lessons and best practices** from the Indian context in the area of policy, regulation, financing, technology and delivery models; and
- **Demonstration of the techno-social viability of the decentralized cooking and solar home lighting applications** through innovative business models and financing options to bring improved quality of life to the rural households in the region.

Study

Objective

- Evaluate the potential of incentive based strategy in triggering the solar lighting technology market in the early stage of development towards inclusive market activation through development of the rural distribution channel.

Question

- In an underdeveloped and non-inclusive market does incentive based sales model at the top and bottom level of the supply chain trigger better market activation?

Project Incentive: (TERI-DFID)

- In order to trigger an early development stage market, an incentive of US\$ 10 -15 (depending on the product type) or 40% of product, whichever is lower, is provided to the national level distributor as an output based aid on reproduction of receipt of sale by the distribution channel partners (suppliers/retailers etc.).

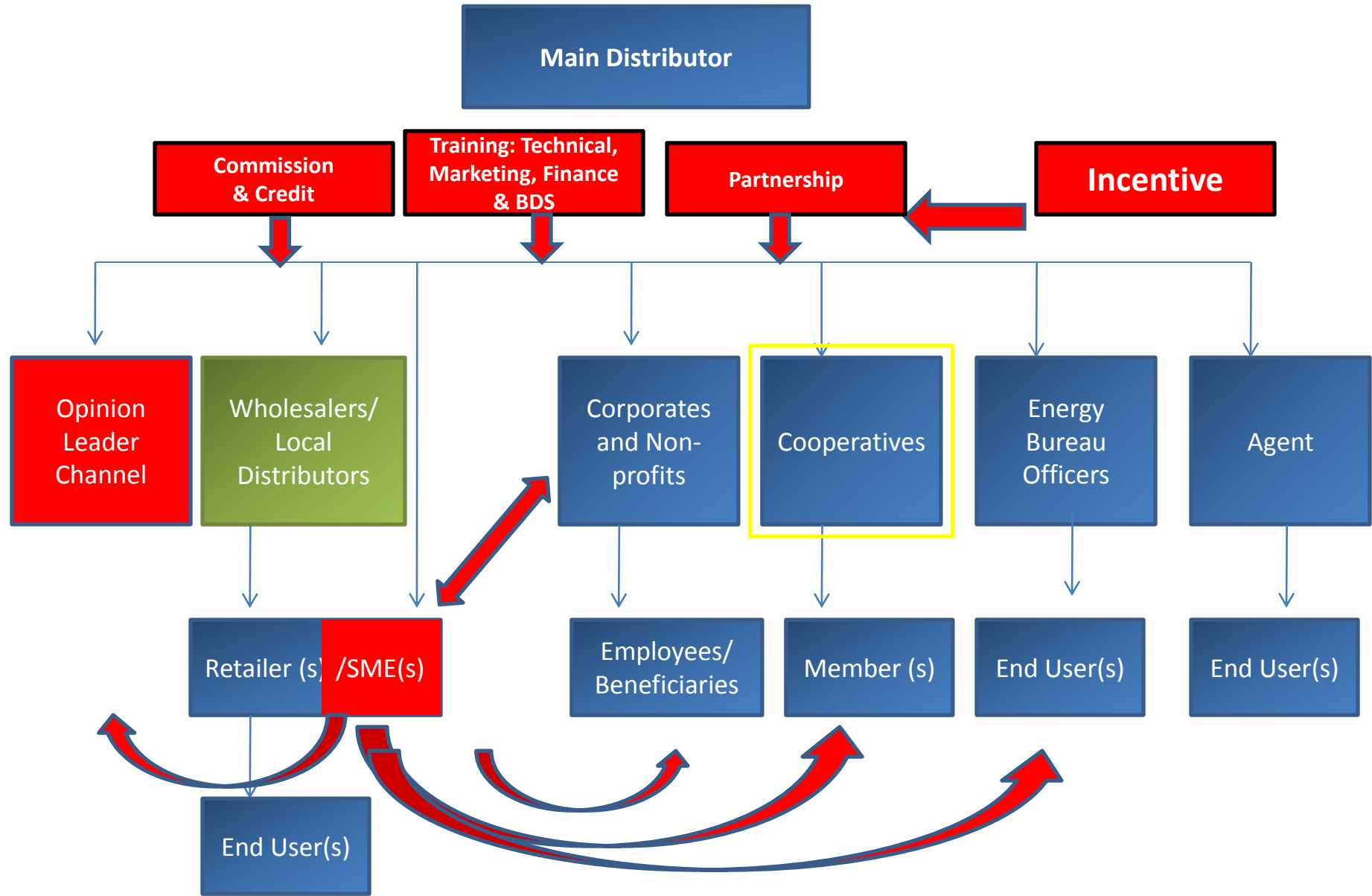
Methodology

Case study based approach

- A primary survey of the end users and MSEs has been done in Arsi Negelle, Ziway, Butajira woredas (i.e districts);
- Interviews with: National level distributors such as Lydetco PLC, Rensys Engineering PLC, Solar Woman, Sunlight Electrical Engineering and Solar Energy Foundation and the local NGO partners who support the last mile MSEs

Distribution Channel

- Inputs: finance/incentive, training, physical product, human and institutional resources;
- Outputs: sales, partnerships, marketing & awareness activities, financial products, training and marketing material



Yellow symbolizes strong channel

Green symbolizes initial channel

Red symbolizes project triggered

Flow of Inputs & Outputs

Main Distributor

Incentive



Commission & Credit

Training: Technical, Marketing, Finance & BDS

New Partnership



Less Shelf Life of Products



Feedback and Market Intelligence



Low Cost Marketing & Promotion

SME(s)

Financial Products

Access

Awareness



End User(s)

Value Addition Across Distribution Channel

MSE (Ethiopia)

- Wholesale price to last mile SME
- Products on credit to SME
- Training on technical aspects
- Training on marketing and promotion

National Level Distributor (Ethiopia)

- Scaling up in to new areas.
- Product feedback and customization
- Introducing new products through opinion leader channel

Financial Products

- Installment purchase
- Deposit and order
- Bulk / Institutional orders

New Promotion Activities

- Market day sales
- Village level
- Brand building using tee shirts
- Cross selling products

New Partnerships

- Cooperatives
- Private enterprises
- SME network expansion in the form of village level agents
- Energy bureau officers

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Capacity building

- Training and capacitation of staff in technical and marketing.
- Training to last mile SME on technical and marketing.

Marketing

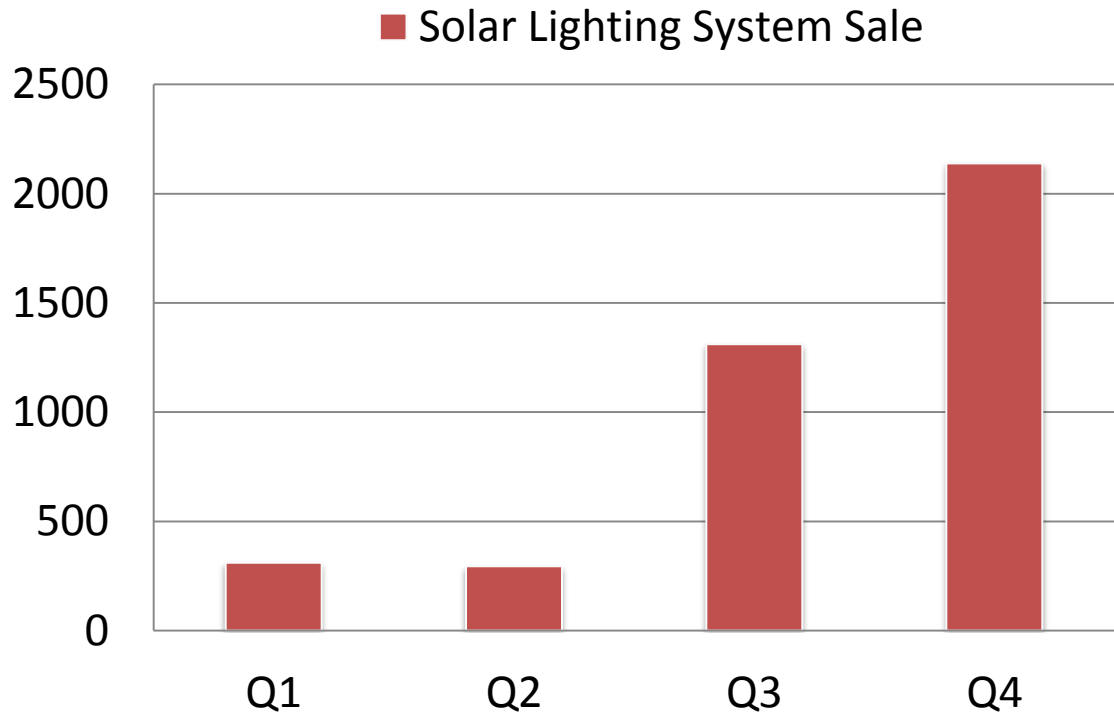
- Vernacular customized marketing
- New channel of distribution to introduce products and customize products to user needs. This is the opinion leader channel.

Sharing incentive

- Sharing incentive with cooperatives.
- Credit sale to last mile SME
- Whole sale price offered to SME.

Results

Quarterly Solar System Sale Jan '14 – Dec '14



In Conclusion

Barriers

- Affordability
- Price of solar lighting technology
- Accessibility
- Awareness (Product & Quality)
- Lack of technical financial and marketing
- Capacities at regional and local level
- Government Regulation

Tools of Sustainability

- Financial Products
- Bulk Orders for MSE
- CBO Strengthening
- Market Intelligence
- Institutional Partnerships
- Localized Marketing Campaigns
- Training to MSEs
- Product Customization
- Energy Bureau Officer network

Triggering an Underdeveloped Solar Lighting Market

Thank You