#### Upscaling Mini Grids for Least Cost and Timely Access to Electricity Services

#### **Guarantees and Financial Products**

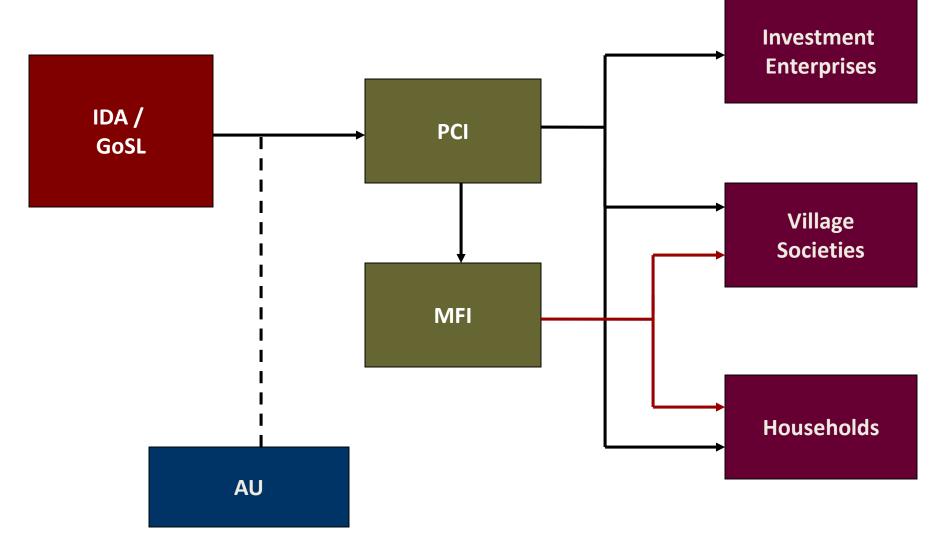
Kapila Subasinghe Vice President (Specialized Project Lending)/ Head of Consulting DFCC Bank Sri Lanka

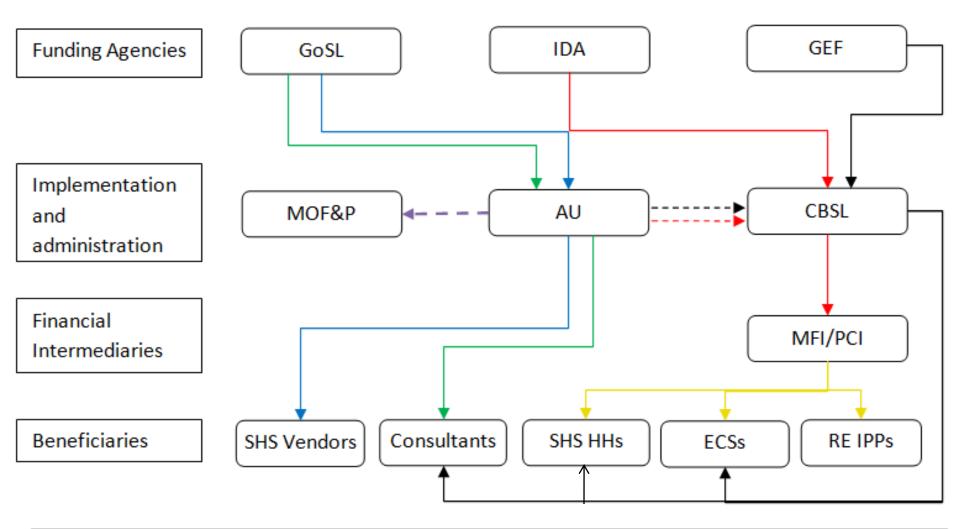
07 February 2017

# Sri Lanka

- Island nation; 65,600 sq km; 21 m population
- Three IDA (USD 94.7m) & GEF (USD 11.8m) assisted Renewable Energy Programmes during a 15 year period
  - $\sqrt{1}$  ESD Project
  - $\sqrt{\text{RERED Project}}$
  - $\sqrt{\text{RERED Additional Financing}}$
- Access to grid: 40% of households (1996) today over 96% of households

## **Credit Programme**





_	Loan Facilities	 Counterpart Funding
	 Reporting	 SHS Subsidy
	GEF Grant	 IDA Credit
	 Withdrawal Applications (Grant)	 Withdrawal Applications (Credit)

# **Business Model**

• Demand driven, market based approach

- Create an enabling environment:
  - $\sqrt{\rm Address}$  information, institutional, legal/regulatory and financial barriers in an integrated manner
  - $\checkmark$  Loans on standard commercial criteria
  - $\sqrt{O/P}$  based subsidies for off-grid projects
  - $\sqrt{}$  Technical assistance and capacity building
- Program management by an Administrative Unit set up within DFCC Bank

## Administration

- Integrated approach to resolve issues
- Clear focus (did not try resolve all issues in the power sector)
- Flexible management; learn and adopt as you go
- Introduce stringent rules as the industry matures
- Continuous interaction with all stakeholders and information dissemination
- Lean administrative structure

## Results

- ESD and RERED Projects
  - $\sqrt{85}$  grid connected projects; 215 MW
  - $\sqrt{210}$  community based projects; 7,952 HH
  - $\sqrt{}$  SHS; 131,528 HH
- Beyond RERED (in addition to above)  $\sqrt{}$  Over 75 projects; over 210 MW

### Off-grid Community-based Projects

- A typical 10kW off-grid scheme serves 40 HH within a 2km radius
- Built, owned and operated by the community through an Electricity Consumer Society (ECS)
- Technical specifications defined by Project
- Technical assistance and grant through GEF
- Loans on market terms, based on independent credit assessment and access to long-term funds

## Typical Funding Plan (example)

LKR

1/3

Capacity

= 10kW

Beneficiaries

= 40 families

Total cost= 2,500,000Less. Labor and materials=sourced from village= (250,000)Cash requirement= 2,250,000

# Typical Funding Plan (example)

• Cash Requirement = LKR 2,250,000

LKR

2/3

- Equity contribution = 10,000\*40 = 400,000
- Co-financing grant = 10\*600\*112 = 672,000
- Bank Loan = 20,000\*40 = 800,000
- Grants from Provincial Council

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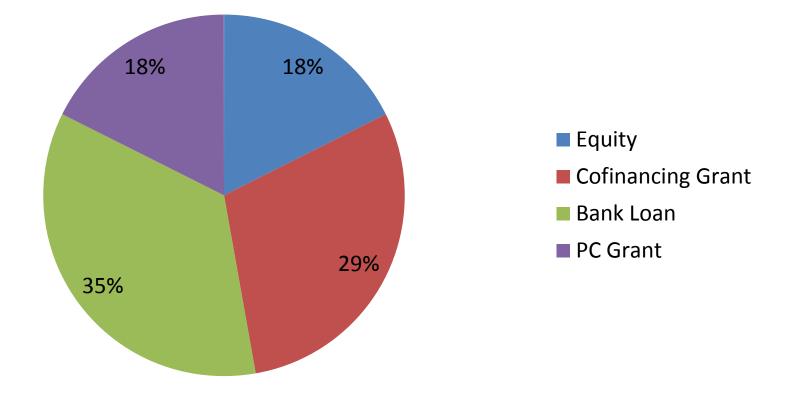
= 400,000

2,272,000

Working Capital Machinery supplier provides suppliers' credit subsequent to a down-payment

### Typical Funding Plan (example)

3/3



## Initial Reluctance of FIs (PCIs)

- Unfamiliar sector
- Lack of knowledge
- Competency of developers
- Expansion of the grid
- Commitment of the State Agencies
- Adequate collateral
- Rural outreach

#### Q1 - Inclusion of banks

#### Initiatives

### Q2 - Risk Mitigation in Financing

Risk	Off-grid	Grid-connected
Regulatory		
Technical		
Competency		
Default		
Market		

#### Contact

Kapila Subasinghe Vice President (Specialized Project Lending)/ Head of Consulting DFCC Bank 73/5 Galle Road, Colombo 3, Sri Lanka

Tel 94 11 244 2231 Fax 94 11 244 2005 Email kapila.subasinghe@dfccank.com www.dfcc.lk