



**REN21** Renewable Energy  
Policy Network  
for the 21st Century



# PROMOTING RURAL ENTREPRENEURSHIP THROUGH THE DEPLOYMENT OF HYBRID MINI-GRIDS IN RURAL MALI

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# MALI-FOLKECENTER & RURAL ELECTRIFICATION



Created in **1999** and working to start a **paradigm shift** towards renewable energies happen in West Africa.

- Installed over **300** systems for schools, health centres, and streetlight
- Facilitated the funding and installations for **9 solar-thermal hybrid isolated mini-grids systems**, providing energy services to **more than 50.000** people in the South of Mali, and contributing to creating local jobs
- MFC implemented more than **38 projects** on the ground, which impacted the lives of **800,000** people

# MALI-FOLKECENTER'S HYBRID INSTALLATIONS



	Villages	Current Status	Power		Number of targeted connections	Population of the area	Size of the network (in kms)
			Generator in KW	Power in Solar kW			
1	Zantiébougou	Operational	168	52	1005	7000	10
2	Manankoro	Operational	168	52	635	7700	15
3	Kébila	Operational	68	22	430	4000	4,5
4	Kologo	Operational	34	22	250	2500	2
5	Bougoula	In construction	40	22	145	3000	2
6	Tabakoro	Operational	61	22	250	2500	3
7	Bancoumana	Operational	45	32	493	8000	10,5
8	Finkolo-Ganadougou	Operational	60	50	500	8500	8
9	Massigui	Operational	60	50	420	7700	9
	<u>Total</u>		<u>604</u>	<u>302</u>	<u>4128</u>	<u>50900</u>	<u>64</u>

# ENERGY PROFILE OF RURAL MALI



Rural Electricity Access	Rate in 1999	Rate in 2005	Rate in 2015 (Projected)	Rate in 2015 (actual)	Rate in 2020 (Projected)
Mali	1%	12%	55%	17%	80%

## ECONOMIC BASELINE PROFILE RURAL PRE- ELECTRIFICATION

- Median Monthly Income (p.p.): **8 to 14 USD** (Households of 20 pp.)
- Households' Monthly expenditure on energy : **21 USD**
- Main Sources of Energy for households: Paraffin, candles, solar lamps
- Main Sources of Energy for productive users: Diesel-powered generators
- Productive Users' Monthly expenditure on energy : **70 USD**
- Economy based on the proceeds from agricultural yields and seasonality of income

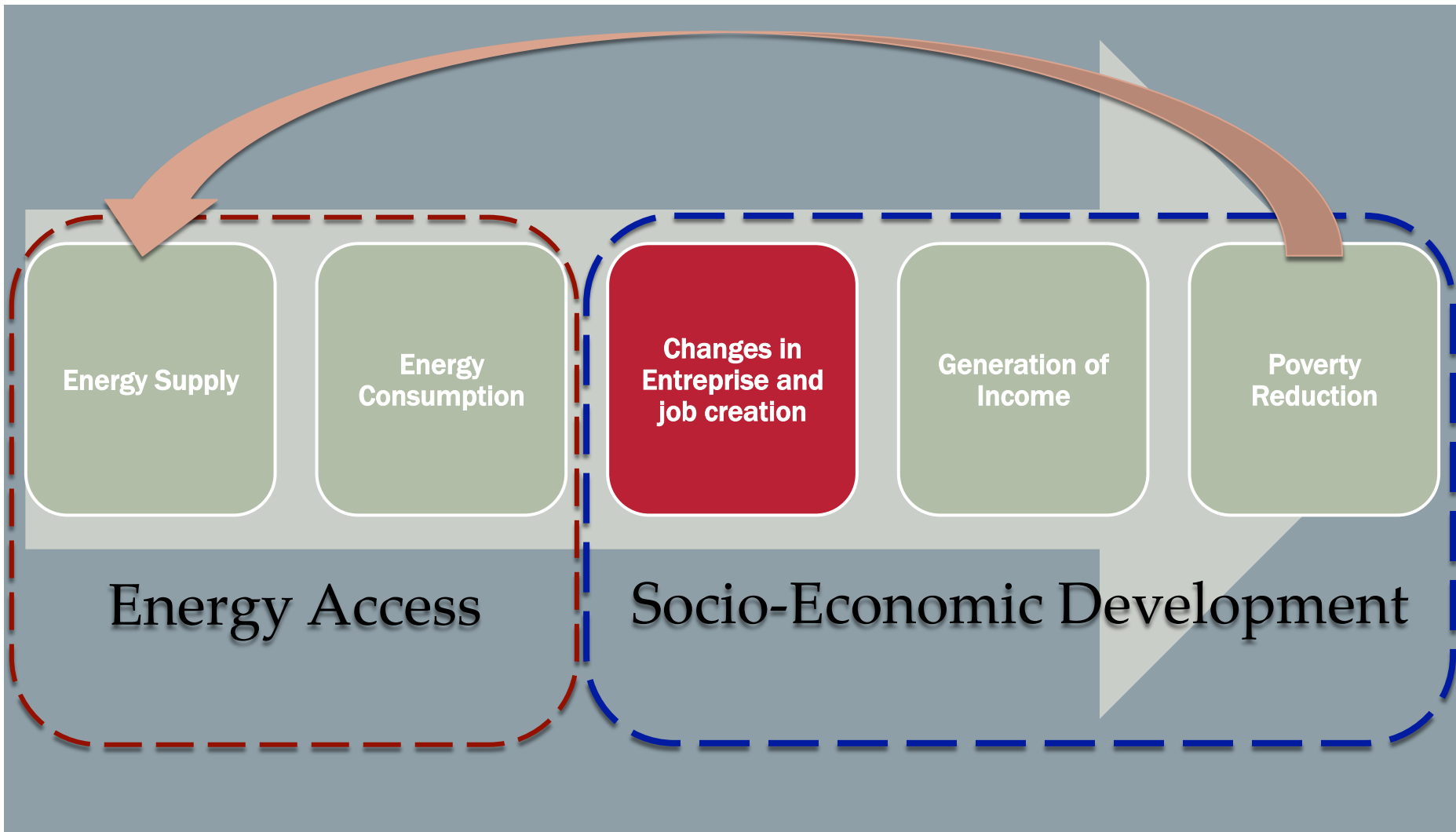
# KEY ASPECTS OF RURAL ELECTRIFICATION



- Electrification helps empower communities
- Electrification affects all areas of the socio-economic life of a community
- Electrification transforms communities

**Access to electricity is a tool for socio-economic development  
and not an end in itself**

# FROM ENERGY SUPPLY TO POVERTY ALLEVIATION

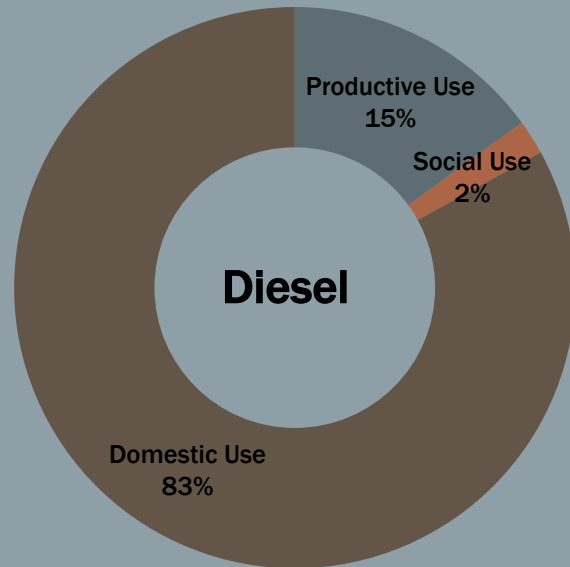


# CHANGES IN ENTERPRISE

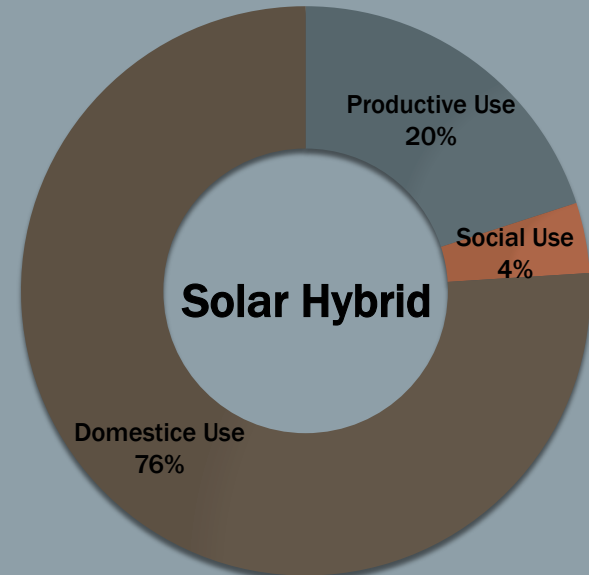


- Diversification of income sources
- Creation of new income sources
- Increase in work efficiency
- Savings on energy bill
- Creation of local jobs

# ENERGY CONSUMPTION: DIESEL / SOLAR HYBRID



- Short hours of operation
- High costs of production
- Limit opportunity for productive and social users
- High cost of energy (USD0.5/kWh)



- Long hours of operation
- Low production costs
- Cheaper for consumers (USD0.3/kWh)
- Stimulate productive use
- Encourage public and social use

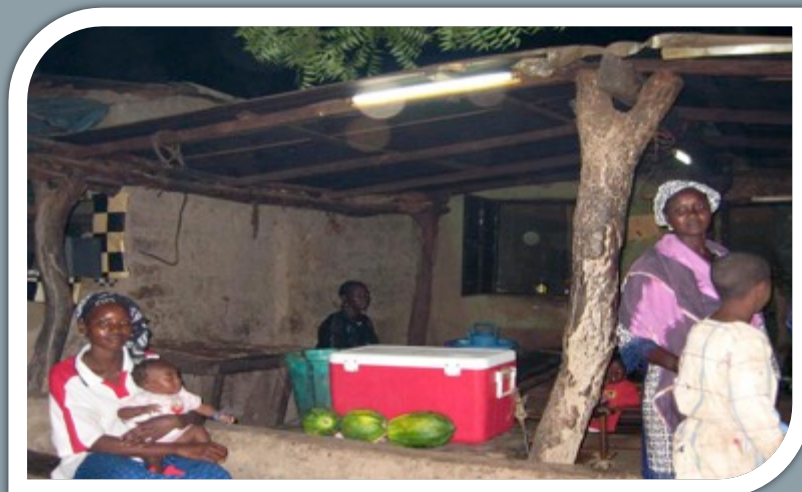


# PRODUCTIVE USE OF ENERGY



Increase in productivity because:

- work does not have to stop at sunset
- Acquisition of better equipment
- Savings on the energy bill (32 USD on average against 70 USD)
- Job creation (direct & indirect)

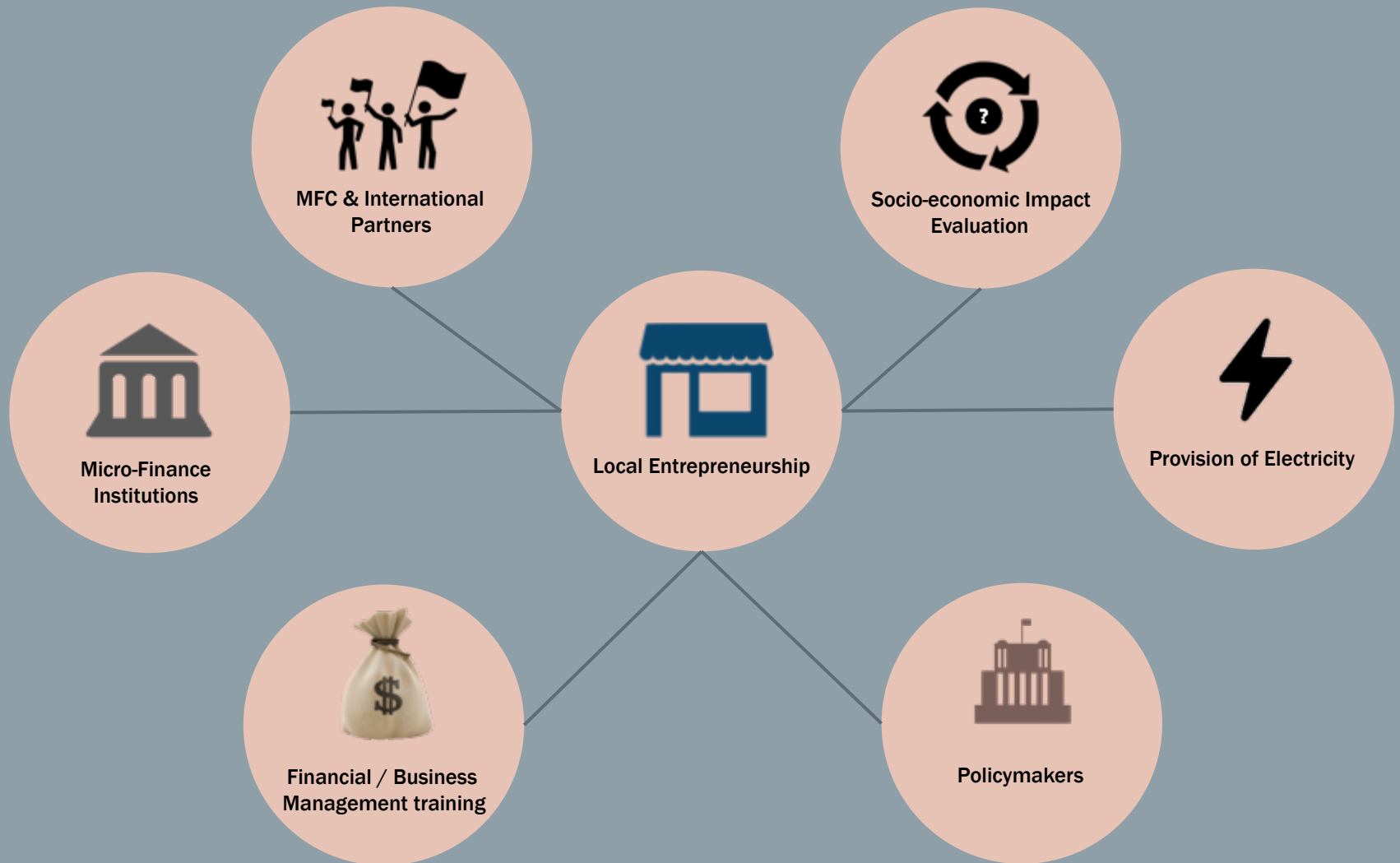




# HOW TO SUPPORT THAT PRODUCTIVE USE OF ENERGY?

## MFC Nyetaa's Approach

# ENTREPREISE DEVELOPMENT SERVICES



# THANK YOU



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