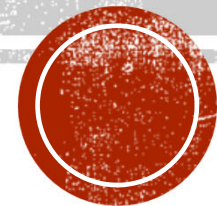


Rural Electrification Workshop Round Table Discussion

Date: June 24, 2019

Venue: Hilton double tree Kuala Lumpur



ROUND TABLE DISCUSSION

- Planning and implementation
- Assessing the Impacts of Rural Electrification



PLANNING AND IMPLEMENTATION

Q1: Cost

There is a cost to rural electrification, there are different perception towards who is responsible for the cost of electrification for the rural communities:

- i) The government should provide electricity at a lower cost or even free
- ii) The government should provide electricity at the same price as other users
- iii) The rural community should be responsible for the running cost of electricity supply, with some subsidy/support from government
- iv) The rural community should be self-sustained or migrate to locations with electricity supply.



Domestic Rates for different utility companies

TARIFF D-DOMESTIC	Price per unit
For 1 to 100 units per month	18 sen
For 1 to 150 units per month	18 sen
For 1 to 200 units per month	22 sen
For 1 to 300 units per month	25 sen
For 1 to 400 units per month	27 sen
For 1 to 500 units per month	29.5 sen
For 1 to 700 units per month	30 sen
For 1 to 800 units per month	30.5 sen
For 1 to 1300 units per month	31 sen
For above 1300 units per month	31.5 sen
Minimum monthly charge	RM 5.00

Tariff A - Domestic Tariff	Price per unit
For the first 200 kWh (1 - 200 kWh) per month	21.80 sen
For the next 100 kWh (201 - 300 kWh) per month	33.40 sen
For the next 300 kWh (301 - 600 kWh) per month	51.60 sen
For the next 300 kWh (601 - 900 kWh) per month	54.60 sen
For the next kWh (901 kWh onwards) per month	57.10 sen
The minimum monthly charge is RM3.00	



PLANNING AND IMPLEMENTATION

Q2: Site Selection

- Given that there are many rural communities to be electrified, how can the government determine which site to prioritize over the others?



PLANNING AND IMPLEMENTATION

Q3: Technology Selection

- How the implementers decide on technology for rural electrification?
- Minimum level of performance ? (hour of electricity, power capacity?)



System B System A	Centralized Solar System	Solar Home System	Solar Charging Station	Solar lights
Centralized Solar System		<ul style="list-style-type: none"> - Extendable to increase capacity - Higher capacity allowing work-assisting appliances - Better utilization of installed solar PV - Allow collective responsibility (such as fees collection) for system maintenance 		
Solar Home System	<ul style="list-style-type: none"> - Lower cost of implementation - Medium technical barrier - Clear (individual) ownership 		<ul style="list-style-type: none"> - Clear (individual) ownership 	<ul style="list-style-type: none"> - Higher power capacity allowing basic appliances
Solar Charging Station	<ul style="list-style-type: none"> - Possible lower cost of implementation - Low technical barrier 			<ul style="list-style-type: none"> - Can be scaled up (by increasing the batteries) to power larger appliances
Solar lights	<ul style="list-style-type: none"> - Lowest cost of implementation - Lowest technical barrier - Zero operating cost 			

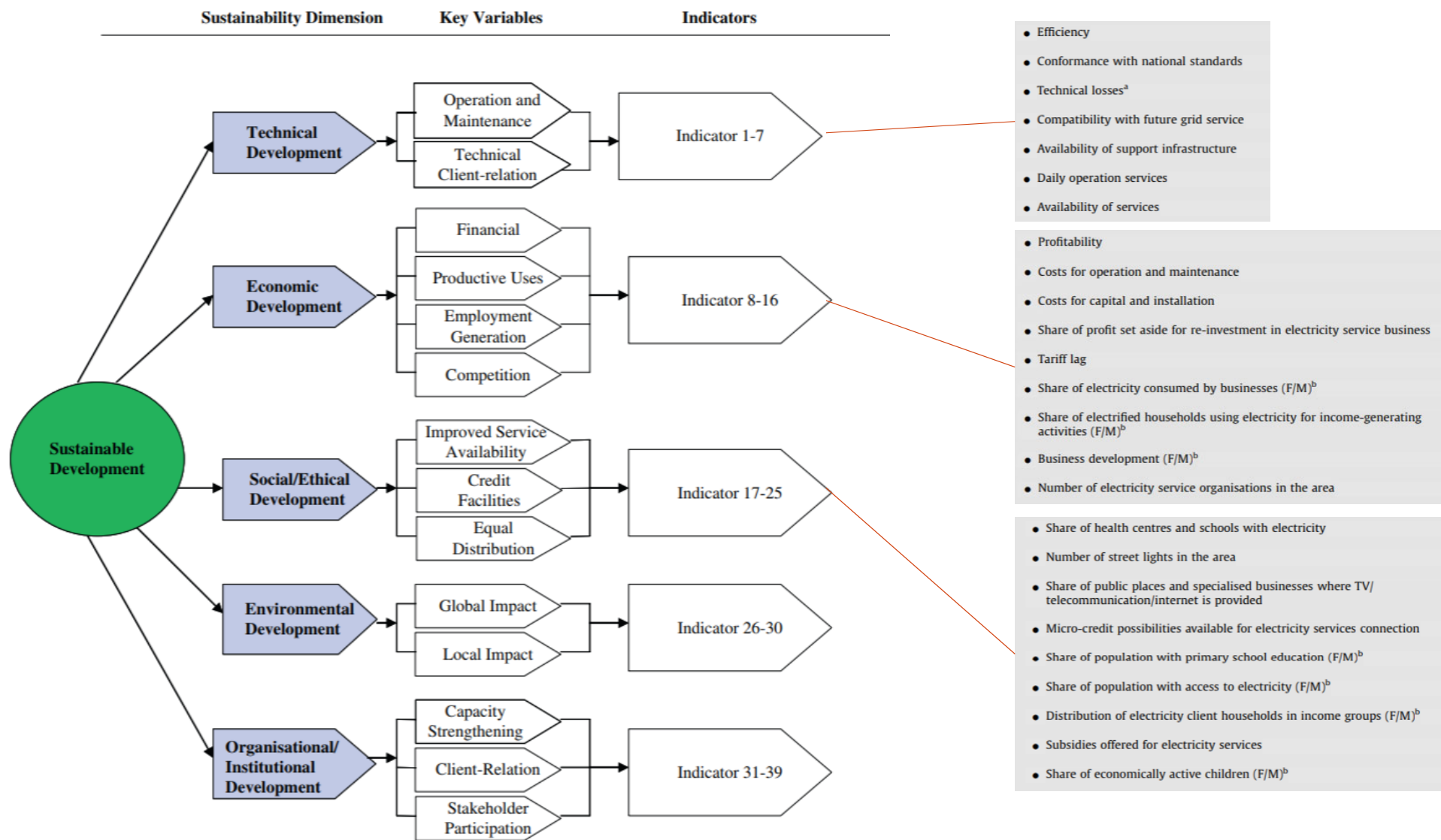


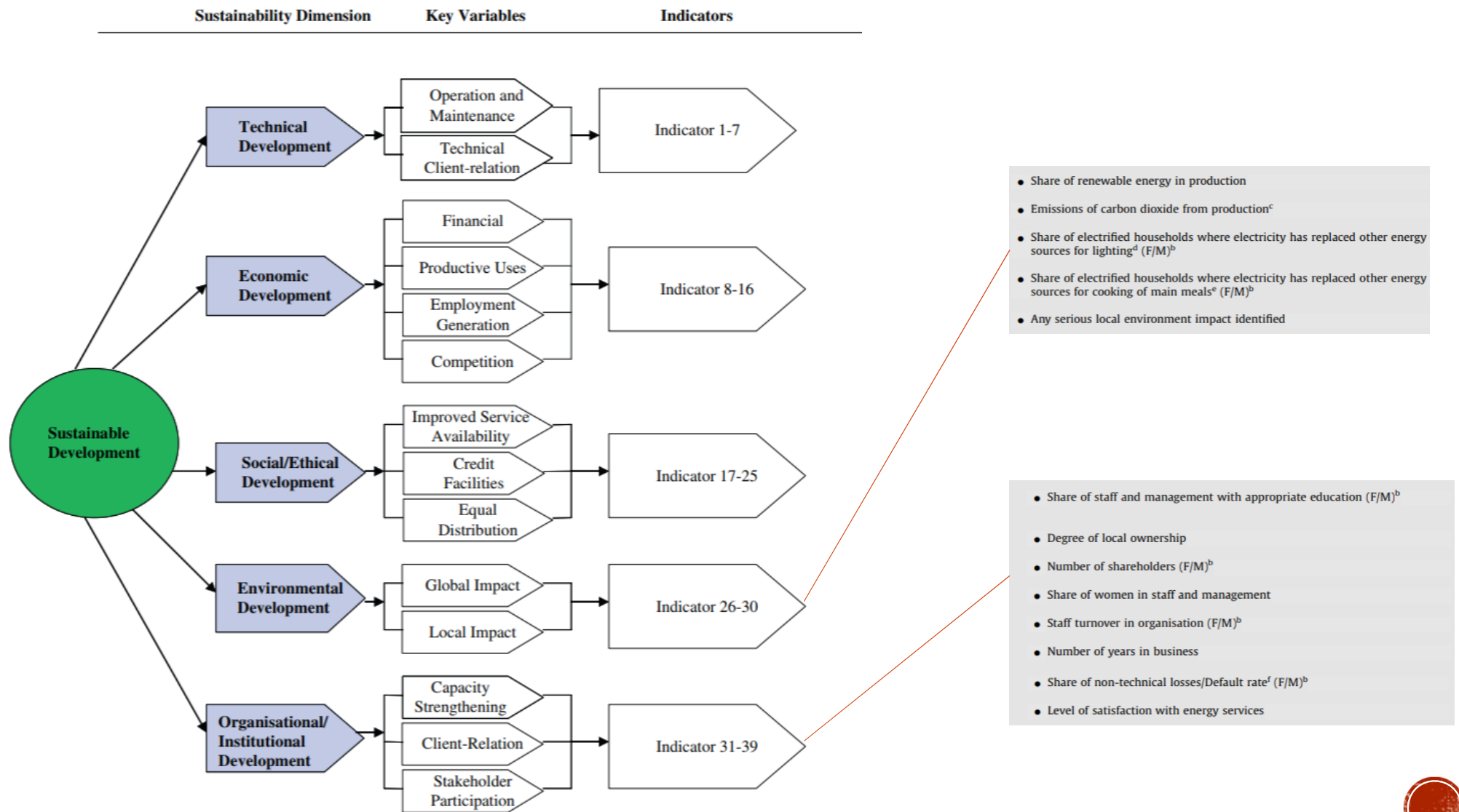
PLANNING AND IMPLEMENTATION

Q4: Project Sustainability

- Of the key issue of many rural electrification project is the issue of sustainability. What can be done to improve the sustainability of the projects?
 - i) Technical sustainability
 - ii) Financial sustainability
 - iii) Environmental sustainability







PLANNING AND IMPLEMENTATION

Q5: NGO & Community Initiated Projects

- What are the implementer's policies towards rural electrification projects that are initiated and completed by NGOs as well as local communities?



ASSESSING THE IMPACTS OF RURAL ELECTRIFICATION

- Perspectives of Implementors
- Perspectives of Rural Communities



ASSESSING THE IMPACTS OF RURAL ELECTRIFICATION

Q1: Perspectives of Implementors

What are the impacts that the implementors look for and how to assess these impacts?

Q2: Perspectives of Communities

What are the impacts that the communities expect for and how to assess these impacts?



Domain		
Comfort	Lighting	Has electrical lighting system improved comfort and safety?
	Space heating or Cooling	Has electricity helped in space heating or cooling that increased the comfort of space?
	Cooking	Has electrical lighting system improved the comfort of cooking? (less smoke, less noise)
	Communication	Has electricity improved the communication service? (phone, internet, fax, etc)
	Entertainment	Has electricity allowed entertainment in the form of TV, radio, HiFi, handphone or other form of electrical entertainment system?
Productivity	Lighting	Has electrical lighting system prolonged your working/study hours?
	Household appliances	Has electricity allowed the use of household appliances, that are previously not possible, to increase productivity? (reducing the time to do house chores, to gather food and/or fuel)
	Work equipment	Has electricity allowed the use of equipment/tools that increase your work output? (agricultural yield, fish catch, product quantity, etc)
	Income generation	Has electricity increased your net income? (taking into account the expenses of paying for electricity)
Facility/Amenity		Has electricity allowed new facilities which are previously not available? (postal service, health care, education etc)



