

- ✦ **Priority sectors:** Energy, Agriculture, Transport, Waste, Forestry
- ✦ **Selected technology:** PV
- ✦ **Key barriers to overcome when deploying the technology in the target country:**
 - ✦ Cost (financing)
 - ✦ Required Capacity (professional knowledge)
 - ✦ Lack of information (TNA?)
 - ✦ Infrastructure (grid, off-grid, distance to grid, storage capacities)
 - ✦ Availability of land/Land ownership
 - ✦ Centralization and project size

SDGs to take into account:

★ Why are certain SDGs relevant (1-2):



Stakeholder	Role
Ministry of Finance	Financing, budget
Ministry of Energy	Overseeing of energy market, assessing the access to energy , regulation of energy market
Rural Electrification agency	Distribution of electricity, Infrastructure development
Ministry of Local Government	Assessment of implementation of action,
Ministry of Lands, Housing, and Urban Development	Land use, planning, and zoning
Electricity Generation Companies	Project development and management of hydropower, grid operator
Ministry of Trade and Industry	Knowledge spillover, import of goods (assessment of standards and quality) and technologies,
Local communities	Promoting bottom-up movements
NGOs	Advocacy of local population (especially large project, which large impact), overseeing projects

✦ Baseline situation:

- ✦ Population 42,862,958
- ✦ Total Area (km²) 241,550
- ✦ **Access to Electricity (% of population) - 26.70 –**
- ✦ **Access in rural areas** 7% in rural areas.
- ✦ Regarding electrical power generation, hydropower accounts for about 84% of the total installed capacity of 822 MW.
- ✦ Other sources contribution?

- ✦ In contrast the average solar radiation is 5.1 kWh/m²/day. Existing solar data clearly indicate that the solar energy resource in Uganda is high throughout the year. The data indicate a yearly variation (max month / min month) of only about maximum 20% (from 4.5 to 5.5 W/m²), which is due to the location near the equator.

- ✦ **Expected outcome (if you are successful in dealing with the problem):**

- ✦ Increased access to electricity (decreased disparities, improved chances for education bc of lighting)
- ✦ Increasing the share of renewable energy (cheaper and cleaner)
- ✦ Climate change mitigation (less GHG emissions)
- ✦ Higher live quality (less air pollution)
- ✦ Increased sense of security (electrification and lighting)
- ✦ Increased economic chances (enables manufacturing)
- ✦ Positive economic effects (trade, installation, O&M, electricity generation, deinstallation can be taken over by companies in the country)

Risk	Risk mitigation measure
Technology prices	Funding, procurement
Electricity prices	Regulation
Professional knowledge	Capacity building, knowledge transfer, and education
Land ownership	Involving local population, let them participate (also financially), compensation
Lack of information	Information campaigns
Too expensive projects	Control the flow of money
Technology quality	Set up quality standards

	Indicators / Targets	Means of verification	Assumptions/Risks
Objective <i>Ensure access to affordable, reliable, sustainable and modern energy for all</i>	- Achieve 3200 MW of RES (electricity) installed	- Assess installed capacity (number of plants, and capacity)	- Geographic potential should enable the development of 3.2 GW of capacity installed
	- Enable affordable energy	- Report/Economic analysis about the impact of consumer prizes	- Financing is available - Regulations for affordable electricity exist - Support scheme and donations are available
	- Increase access to renewable electricity	- Assess number of consumers with access to RES - Decentralized small scale developments	- It is affordable to supply consumers with electricity from RES - Grid and storage infrastructure for electricity is existing

Logical framework



Outcome	Increased access to electricity Increasing the share of renewable energy Climate change mitigation Higher live quality Increased sense of security Increased economic chances Positive economic effects
Outputs	Assessment report Economic, technical, environmental, and social analysis
Activities	Impact assessment Stakeholder engagement Compensation Renewable energy deployment

Energy system and market in Uganda

Project management knowledge

Process requires collective cooperation

Stakeholder analysis