UNICEF Burundi
Decentralized Rural Electrification Strategy (2015-2017)

Background

Burundi is one of the poorest countries in the world, currently occupying position 180 out of 187 on the Human Development Index. Energy poverty is especially critical and presents one of the key bottlenecks towards overall social and economic development. Currently, only 3% of the population has access to the national electricity grid. The situation with social infrastructure is equally grim: almost 96% of primary schools, 71% of health centers, and 52% of district hospitals remained without electricity in 2014.

The vast majority of the country is reliant on simple biomass fuels, such as wood, coal, and kerosene, to meet their daily cooking, heating, and lighting needs. These dirty energy sources negatively impact all aspects of daily life – exposing households to severe health risks, restricting income-generating opportunities to daylight hours, stunting learning outcomes for children, and preventing the delivery of critical health services.

In this context, UNICEF Burundi has made renewable energy – and environmental sustainability more broadly – a key focus of its country programme for 2015-17.

Strategy

Through its recently formed Innovation Lab, the Burundi Office is uniquely positioned to convene key actors, including government, development organizations, academia, civil society, and private sector, to co-develop solutions to pressing local challenges.

A major area of focus is the development of a Decentralized Rural Electrification (DRE) Strategy.

The DRE Strategy aims to maximize the social impact of decentralized renewable energy and tackle energy challenges at all levels, from household to policy. A key objective is to bring the benefits of modern energy technologies to rural children and families, and promote the sustainable transfer of new skills and approaches to institutional, commercial, and community level structures.

The Strategy is based on a three-pronged approach:

- **Situation analysis, evidence generation, and policy advocacy**
- **Building of partnerships with key actors for rapid, effective, and sustainable implementation of proven solutions at scale**
- **Development and implementation of off-grid energy projects at the household, community, and social infrastructure level**

Action Plan

Over the course of 2013-14, UNICEF Burundi laid the groundwork for the Strategy, which included carrying out a comprehensive set of research, market analysis, and scoping activities. Several innovative products and business models were piloted, including Project Lumiere – a micro enterprise model for delivering household energy supply to rural communities – and the installation of five solar fridges in health centers and a solar-powered computer kiosk in a youth center.

Based on the results and outcomes of this work, an action plan was developed to support the further implementation of the Strategy. The action plan focuses on fostering an enabling environment, enhancing supply and demand for clean energy, and promoting rigorous evaluation and documentation through the following activities:

Activity 1: Establishing necessary legal and regulatory frameworks

Activity 2: Supporting national use and development of off-grid energy solutions

Activity 3: Electrifying social infrastructure through solar PV systems

Activity 4: Expanding energy access for vulnerable households through off-grid energy solutions and rural distribution models

Activity 5: Rigorous M&E to document and support scale-up of proven renewable energy solutions

Activity 1: Establishing necessary legal and regulatory frameworks

- A study visit of government officials, national market experts, and researchers to a North African country for replicable models of photovoltaic (PV) coverage
- Recruitment of international expertise to support the development of specific by-laws and regulations on product taxation, sector-specific standards, quality control standards, etc.
- Analysis on supply chains and local manufacturing of energy products

Activity 2: Supporting national use and development of off-grid energy solutions

- Creation of an Energy Research, Development, and Training Hub in collaboration with international partners to provide advanced training in PV technology and promote sustainable transfer of skills and technologies
- Establishment of two VET/youth centers to stimulate demand and reinforce domestic capacities for PV electrification and maintenance, and prepare youth for entry into the labor market

Activity 3: Electrifying social infrastructure through solar PV systems

- Provision of solar PV systems to schools and health centers for improved service delivery
- Provision of basic PV training to Parent-Teacher Associations and health center administrators to guarantee sustainability of these systems

Activity 4: Expanding energy access for vulnerable households through off-grid energy solutions and rural distribution models

- Scale-up of Project Lumiere
- Creation of an Energy Ladder by widening the range of energy products offered to households
- Public information and awareness raising campaigns, and expanded trainings in basic finance, business, and marketing to increase demand for quality energy products

Activity 5: Rigorous M&E to document and support further scale-up of proven renewable energy solutions

- An impact evaluation of the overall approach and individual projects
- Use of RapidPro to systematically monitor and report on progress
- Dissemination of results and recommendations at national level for adaptation and replication in similar contexts