

## SETUP SCHEME – ACCESS TO ENERGY SERVICES AS A ROUTE OUT OF POVERTY

With structured, ongoing access to energy services in isolated rural areas, value can be added to farm production and sustainable economic activities can be developed.

### OBJECTIVES

- Reducing energy dependency by offering innovative access to renewable energy sources
- Offering a sustainable alternative to manual activities
- Reducing the arduousness of tasks, especially those done by women
- Promoting entrepreneurship and strengthening the local economic fabric
- Ensuring the involvement and inclusion of local institutional actors

### BENEFICIARIES

#### The project is primarily aimed at:

- Housewives and their daughters (3000 rural households)
- Agricultural producers and women who process foodstuffs
- Craftspeople and traders
- Energy service operators

## PROJECT BACKGROUND & CHALLENGES



Since the early 2000s, GERES has been working in Benin to support the small-scale food-processing sector. Experience over these years has made it clear that the expansion of rural very small and micro-enterprises (VSMEs) is constrained by an unfavourable environment: industrial sectors are unstructured and people do not have access to modern energy sources or the financial and technical resources (training) that would enable them to modernize processes.

In Benin, 70% of the population live in rural areas, where only the municipal centres are connected to the electricity grid, covering only 10 to 15% of the population. Many of the households that could technically connect to the grid cannot afford to do so. In this rural environment, there is therefore no option but to rely on primary energy sources:

- firewood for cooking;
- paraffin for lighting;
- muscle power as the driving force for farming and craft activities.

While biomass constitutes the main energy source, Benin is also dependent on imports of fossil fuels and the distribution sector is unstructured and informal in rural areas (80% of national requirements are met through informal supplies from Nigeria).

This situation results in serious energy poverty, especially in view of the yearly rise in fossil fuel prices due to market pressure.

All these constraints represent substantial obstacles to development, as access to reliable, affordable energy in rural areas is a vital precondition for modernizing the craft and food processing sectors, which are the source of income-generating activities.

One of the ways to overcome these shortcomings in rural areas has been to offer access to energy services. To this end, GERES through SETUP project (Energy and Technical Services for Productive Uses in Benin), has opted to apply its expertise to come up with a practical, structured, comprehensive solution that will promote energy self-sufficiency and, as a result, economic development for communities in Zou.

## THE PROGRAMME OF ACTION 2007-2013

The GERES hopes that this project can take up some of the challenges of fuel poverty by structuring services at local level:

- **A horizontal approach** developing service provision tailored to productive needs, minimizing operating costs and fostering multi-functionality (various services available at the same site);
- **A vertical supply chain approach**, addressing both upstream (raw material supply and storage) and downstream (processing, sales and outlets) constraints).

### Operational arrangements

- **Training and support for VSMEs** (very small and micro-enterprises) in a technical aspects and funding opportunities;
- **Development of financial services** specifically adapted to the energy sector and businesses in rural areas;
- **Building capacity** so that local authorities can set up and monitor projects which can be maintained using local skills.

### Activities

**27 multifunction platforms (or units)** offering services appropriate to a large range of food-processing or craft applications (milling cereals, soldering irons, etc.).

**30 self-contained energy centres:** some of these will be mobile for use at the side of the field (e.g. grinding unit), while others will operate with photovoltaic technology to recharge batteries and provide lighting for shops.

**Development of a biofuel** meeting local needs. Production of pure vegetable oil based on Jatropha can partially replace diesel as fuel for energy platform motors. As it is restricted to local demand, the biofuel supply chain encourages community self-sufficiency.

**Local energy assessment** to ensure that institutional actors take account of energy access issues in strengthening the local economic fabric.

## EXPECTED IMPACTS AND RESULTS

### Social impacts

- Reduction of arduousness of tasks, mainly those performed by women
- Improvement of living conditions
- Creation of attractive jobs in rural areas
- Reduction of energy dependency

### Environmental impacts

- Reduction of greenhouse gas emissions
- Promotion of renewable energies

### Institutional impacts

- Validation of an innovative decentralized energy service model
- Validation of an innovative local biofuel supply chain

### Economic impacts

- Structuring and sustaining energy service is in isolated rural areas
- Strengthening the productive environment
- Strengthening VSMEs in rural areas
- Improvement of rural household income

## PARTNERS

### Technical partners

- The NGOs CEBEDES and PlaNet Finance
- The implementing agency of the Ministry of Energy for Rural Electrification and Energy Management (ABERME)
- Union of Mayors of Zou

### Financial partners

- European Union
- French Ministry of Foreign Affairs
- ADEME
- POWEO Foundation
- SCAC Benin



Cassava milling unit

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