

Project Fact Sheet

Updated: May 2009

Poverty Alleviation through Cleaner Energy from Agro-industries in Africa (PACEAA)

Programme area: COOPENER, Community cooperation with developing countries
Target countries: Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Sudan, Swaziland, Tanzania, Uganda, Zambia
Status: Started September 2007, in progress

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Partners: IED, France
 UNEP (with sub-contractors AFREPREN/FWD, Kenya and EATTA, Kenya)

Website: <http://www.paceaa.org>

Objectives:

- (a) to identify policy, commercial and regulatory barriers currently restricting the uptake of cogeneration and renewable energy systems from agro- industries, and to propose ways of overcoming these barriers;
- (b) to develop detailed policy and regulatory guidelines and incentives for incorporation of cleaner energy from agro-industries into rural electrification programmes and plans;
- (c) to enhance local and regional capacity of public institutions, private sector for the effective utilisation of cogeneration and other cleaner energy systems from agro-industries in the rural electrification process.

Benefits: Increased access to electricity in rural areas, based on clean and locally available energy resources, contributing to poverty alleviation

Keywords: rural electrification, clean energy, agro-industries, small hydro, cogeneration

Duration: 05/2007 – 04/2010

Budget: €1,267,245 (EU contribution 50%)

Contract number: EIE-06-247/SI2.448126

Countries Participating in Greening the Tea



Countries Participating in Cogen for Africa



PACEAA - Poverty Alleviation through Cleaner Energy from Agro-industries in Africa

Short description

PACEAA cooperates closely with two large initiatives from the agro-industries in East and Southern Africa, both supported by the Global Environment Facility (GEF) through UNEP. The support from GEF is justified by the potential reduction in GHG emissions resulting from substituting fossil fuel use with renewable energy. From the GEF project point of view, the activities thus focus on the electricity generation side, whereby CO₂ emissions are reduced. The PACEAA project integrates with the two GEF projects but focuses on the use of electricity, and especially its potential consumption by communities surrounding and associated with the agro-industries.

The Project “**Greening the Tea Industry in East Africa (GTIEA)**” (<http://greeningtea.unep.org/>) executed by the East Africa Tea Trade Association (EATTA) will support the development of small hydropower for the tea factories as a substitute for expensive and unreliable electricity from the grid and diesel backup power. The project “**Cogen for Africa**” (<http://cogen.unep.org/>) executed by AFREPREN/FWD aims to help transform the cogeneration industry in Eastern and Southern Africa into a profitable cogeneration market and promote widespread implementation of highly efficient cogeneration systems by removing barriers to their application by strengthening the capacity of cogeneration project developers, technical service providers and local manufacturers, and

establishing more favourable policies and institutional arrangements that support cogeneration with focus on the Agro-industry.

Four **pilot sites** in Kenya, Malawi, Rwanda and Tanzania have been selected on the basis of pre-feasibility studies. These sites have potential for developing small hydro potential to power both a tea factory and the surrounding communities. Business models and rural electrification plans for these sites are now being prepared.



Expected and/or achieved results

The results of the PACEAA project may be grouped according to the five principal areas of activity: (i) review of policy and regulatory options for agro-industry-led and – induced rural electrification (*now available at project website*) ; (ii) elaboration of organisational and management models; (iii) development of local rural electrification plans; (iv) adoption of rural electrification packages; and (v) training and capacity building to support the planning and implementation of clean energy from agro-industries.

Direct Outcomes are:

- A framework for the removal of policy, commercial and regulatory barriers that are currently restricting the uptake of rural electrification from cogeneration and renewable energy systems from agricultural industries in East and Southern Africa.
- Detailed policy and regulatory guidelines and financial incentives for agriculture sector involvement in rural electrification for selected countries.
- Completed methodology and tools for rural electrification plans for regions with agro-industries interested in cleaner energy project development.
- Enhanced local, national and regional capacity for successful rural electrification development in the vicinity of cogeneration and small hydro projects led by agro-industries.

Lessons learnt

Cooperation between GTIEA, Cogen for Africa and PACEAA is facilitated by the fact that the main subcontractors of the PACEAA project (AFREPREN/FWD and EATTA) are the implementing agencies for GTIEA and Cogen for Africa. Expertise on the supply side aspects of small-hydro and cogeneration will be available through the consultants sub-contracted by EATTA and AFREPREN/FWD under the two UNEP/GEF projects.

Therefore, while the GEF projects focus on the generation aspects including feasibility studies for small hydro power plants and IPP contracts, PACEAA will cooperate with these initiatives by elaborating regulatory and financial models that encourage the involvement of agro-industries in rural electrification distribution through public private partnership, training target groups for the adaptation of these models to each specific context and disseminating the results to a wide group from all over the Continent.