



Africa Renewable Energy Access Program (AFREA)



**Meeting Africa's Energy Needs and
Widening Access to Sustainable
Energy in Sub-Saharan Africa**

WHAT IS AFREA?

The Africa Renewable Energy Access program (AFREA) was established in 2009 to help meet energy needs and widen access to energy services in Sub-Saharan African countries in an environmentally responsible way. AFREA was set up through a US\$28.875 million contribution from the Kingdom of the Netherlands to the Clean Energy Investment Framework Multi-Donor Trust Fund (CEIF-MDTF) of the World Bank's Energy Sector Management Assistance Program (ESMAP).

AFREA funds support the implementation of the Africa Energy Unit (AFTEG) strategy and its clients, through analytical and advisory activities, while also providing recipient-executed technical assistance and investment grants that help speed up the deployment of renewable energy systems regionally.

OUR FOCUS AREAS

Energy Access

AFREA is helping to expand access to reliable and affordable modern energy services by supporting improved service delivery and the scale-up of innovations in electricity, lighting and cooking.

Green Growth

Low carbon development, energy efficiency and climate change adaptation programs are vital to Africa's future. AFREA supports green growth for a reliable, low carbon and sustainable power supply, supporting competitiveness and employment, enabling more businesses and people to realize their economic potential.

Capacity Building and Filling the Knowledge Gaps

AFREA's role enhancing the capacity of key institutions—government ministries, rural energy agencies (REAs), power utilities, regulators and power pool operators—is essential to successful energy access scale-up.



AFREA

“If traditional biomass energy use in Sub-Saharan Africa was modernized, it could bring far-reaching benefits in both the short and long term and raise household living standards (BEIA Biomass report 2010).”

OUR INITIATIVES

Making Biomass Energy Sustainable

AFREA is building the foundation for AFTEG's increased engagement in household biomass interventions through a range of activities like the *Biomass Energy Initiative for Africa* (BEIA), which is supporting nine pilot projects and published a paper on how wood-based biomass energy resources can best be developed and managed.

Lighting Africa

Transforming markets and consumer behavior in Africa, the Lighting Africa initiative helps speed up the adoption of clean off-grid lighting technologies by households and businesses. The goal is to provide cleaner, more affordable lighting to 2.5 million people by 2012, and 250 million people by 2030.

Energy and Gender

Since 2010, AFREA's *Gender and Energy Program* has been applying a gender-sensitive approach to energy project design and policy dialogue in African countries. In Benin, Kenya, Mali, Senegal, and Tanzania, the work has begun towards an approach to energy access that addresses the needs of men and women focusing on action on the ground, partnerships and learning.

Africa Electrification Initiative

The AFREA-supported Africa Electrification Initiative (AEI) brings together over 230 representatives from African energy ministries, utilities, regulatory entities, research centers and NGOs, providing a dynamic platform to share practical information on ground-level implementation issues relating to electrification.



“Women and girls are disproportionately affected by a lack of access to modern energy services.

AFREA's Gender and Energy program is a cross-cutting initiative that attempts to integrate gender considerations into the work not only of AFREA but of rural energy agencies in the region.”

OUR ACHIEVEMENTS

Since Fiscal Year 2009, AFREA has provided over US\$25 million to support more than 25 activities including:

- Support to *Lighting Africa*, which has reached close to 2.5 million people with cleaner, quality-certified off-grid lighting products.
- Improving electrification planning and mobilizing resources to expand energy access through Sector Wide Approaches (SWAp) in Kenya and Rwanda and one is underway in Ethiopia.
- Upgrading capacity of the *West African Partners in Renewable Energy Education* program, to include renewable energy technology into the teaching curricula in Burkina Faso and Ghana.
- Provision of small grants to NGOs to support innovation and develop scalable models for cook stoves, sustainable charcoal production, social biofuels and bio-electricity under BEIA.
- Creation of the *Africa Clean Cooking Initiative* program.
- Creation of a community of practice for African electrification practitioners, including knowledge exchange and capacity building through workshops, blogs and online discussions under the Africa Electrification Initiative (AEI).
- Publication of the *Wood Based Biomass Energy Development for Sub-Saharan Africa: Issues and Approaches* paper.

- Completion of studies on the potential for Concentrated Solar Power (CSP) in Southern Africa and *Enhancing Climate Resilience of Growth in Nigeria*.

AFREA also provided support and direct grants for governments to carry out activities that complement existing World Bank operations including:

- Integration of renewable energy technologies into Mali's off-grid electrification program under the *Household Energy and Universal Access* project.
- Small grants for innovative proposals for affordable micro-energy services in rural Tanzania.
- Assistance to the Government of Liberia to establish a Rural and Renewable Energy Agency to catalyze the development of new renewable energy in rural Liberia.
- The *Modernizing Biomass Energy in Benin* program to promote sustainable wood fuel production and a market management system for 300,000 hectares of forests.
- A project to strengthen the regulation of Rwanda's Lake Kivu methane gas as a power source.
- Integrating gender-sensitive approaches to improving access into World Bank-financed energy projects.



AFREA II: MOVING AHEAD

The Energy Sector Management Assistance Program (ESMAP) and the World Bank's Africa Energy Unit (AFTEG) have proposed a new dedicated ESMAP program for Sub-Saharan Africa: the second phase of the Africa Renewable Energy Access Program (AFREA II) providing multi-year funding to support the region's energy access and renewable energy agenda.

Managed by AFTEG, AFREA II will continue to help find workable, scalable solutions to Africa's energy deficit in the following ways:

- Promoting increased access to energy, with an emphasis on meeting basic household energy needs, and developing renewable energy and other low carbon energy sources;
- Creating an enabling environment for regional cooperation and private sector participation in energy generation, transmission and distribution; and
- Complementing and supporting AFTEG's "Energy-Driven Development" vision of poverty reduction, green growth and making biomass sustainable in low income and post conflict countries.

Specific activities will include:

- Support to rural energy agencies and utilities including energy efficiency programs;
- Continued support to *Lighting Africa's* efforts to help meet the long-term target of reaching 250 million people (50 million lights);
- Implementation of the *Africa Clean Cooking Initiative* piloting and promoting improved cook stoves, improving sustainability of wood-fuel supply, inter-fuel substitution, and development of biomass energy strategies;
- Disseminating information and building capacity among stakeholders to improve access and scale up renewable energy and offering low carbon development and climate change adaptation programs;
- Continued priority for gender mainstreaming and sharing lessons learned in AFREA's first phase;
- Building private-public partnerships for the delivery of sustainable energy services; and
- Promoting regional cooperation, in particular the increased use of renewable energy via regional power pools.



“Only about one quarter of Sub-Saharan Africa's population has access to electricity. Poor households spend US\$20 billion a year on low quality, fuel-based lighting.”

Partners

The Kingdom of the Netherlands
International Finance Corporation (IFC)
Africa Energy Group (AFTEG), The World Bank
Energy Sector Management Assistance Program (ESMAP)
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
European Union Energy Initiative Partnership Dialogue Facility (EUEI PDF)
Global Alliance for Clean Cook Stoves
Global Partnership on Output-Based Aid (GPOBA)

Photo Credits

Cover | ©Lighting Africa
Panel 1 | ©Klas Sander, The World Bank
Panel 2 | ©Jamie Seno, Lighting Africa
Panels 3-4 | ©Sylvie Nenonene, The World Bank

Production Credits

Editor | Ciara O'Sullivan
Production Editor | Marjorie K. Araya
Original Design | Naylor Design, Inc.
Adapted by | Marti Betz Design/Illustrations
Reproduction | Automated Graphic Systems, Inc.

Copyright © May 2012
The International Bank for Reconstruction
and Development/THE WORLD BANK GROUP

The text of this publication may be reproduced in whole or in part and in any form for educational or nonprofit uses, without special permission provided acknowledgement of the source is made. Requests for permission to reproduce portions for resale or commercial purposes should be sent to the AFREA Program Manager at the address below. AFREA encourages dissemination of its work and normally gives permission promptly. The AFREA Program Manager would appreciate receiving a copy of the publication that uses this publication for its source sent in care of the address above.

All images remain the sole property of their source and may not be used for any purpose without written permission from the source.



Africa Renewable Energy
Access Program (AFREA)

Africa Renewable Energy Access Program (AFREA)
The World Bank
1818 H Street, NW
Washington, DC 20433 USA
Email: africaenergyunit@worldbank.org
Web: www.worldbank.org/afr/energy



Energy Sector Management Assistance
Program (ESMAP)
The World Bank
1818 H Street, NW
Washington, DC 20433
Email: esmap@worldbank.org
Web: www.esmap.org