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# Renewable Energy in Africa: UNEP's Initiatives

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# Rural Energy Context in Africa

- African countries have diversified energy balances.
- Diversified stock of RE resources as well as energy access rates.
- Millions of people lack access to any source of modern energy.
- Key challenge is to provide:
  - Lighting, Cooking, Heat, Mechanical Power for water pumping, & Transport in a more efficient manner and with less Environmental & Human Health Impacts.

- The willingness to pay for good quality energy services is there.
- Technology solutions are available.
- Various business development models are available.
- Energy services will have to be provided by rural &/or small enterprises.

- But these small & medium energy service enterprises are facing a host of challenges:
  - Financial intermediaries (both urban & rural-based) not willing to provide products & services needed by these enterprises:
    - Lack of collateral..
    - Credit officers limited RET knowledge.
    - Businesses limited knowledge of business proposals.
  - Limited market intermediaries as an ingredient for a functioning a business development model.
  - Lack of trained caliber of rural energy practitioners.
  - Regulatory environment sometimes not conducive for growth in rural energy services sector.

# Basic ingredients for a successful rural energy enterprise business

- Needs to receive some type of enterprise development & support services.
- Capacity building & toolkits.
- Start up financing.
- Adequate demand for the offered services.
- Regulatory environment conducive for growth of these enterprises.

- As a leading UN agency in the area of environmental protection & promotion of clean energy technologies, UNEP is engaged in a number of technical assistance programs that addresses several of these barriers.

## First Initiative

- At the toolkits and awareness raising level, there is *The Sustainable Energy Finance Initiative* (SEFI).
- A platform providing financiers (including those in Africa) with tools, support & networks to introduce innovative financing mechanisms leading to provision of products and services for clean energy enterprises.
- SEFI has recently released a publication:
  - *Public Finance Mechanisms to Catalyze Sustainable Energy Sector Growth*, (downloadable from SEFI site).

## Second Initiative

- UNEP, in collaboration with UNDP & World Bank is conducting a two-year, GEF-funded study assessing financial risk management instruments for RETs in developing countries, including in Africa.
- Study aims to generate new thinking of financial risk management for renewable energy in developing countries based on analyses of 5-10 selected risk management instruments.

## Third Initiative

- The African Rural Energy Enterprise Development (AREED) Initiative
- Designed to nurture new, clean energy enterprises in Africa by providing enterprise development services & early stage seed finance.
- AREED is one of five similar programs in other regions.
- AREED has debt & equity investments in 32 clean energy enterprises ranging in scale from \$20,000 to \$120,000.
- Supporting businesses in the areas
  - Solar crop drying
  - Efficient cook stove manufacture
  - Wind water pumping
  - Solar water heating
  - Liquefied petroleum gas (LPG) distribution.

## Fourth Initiative

- A program aiming at supporting market deployment of Solar Water Heaters in North African countries.
- Through this program, residential and commercial buildings are able to obtain subsidized loans to install solar water heaters.
- Local banks participate in the program to offer these loans.
- Loan repayments are made by adding a line item in the monthly utility bill.
- Banks accept this as loan guarantee hence offer a lower interest rate on the loans.
- Since launch in April 2005, three partner banks have lent almost US\$ 6 million in the program in Tunisia which has led to the installation of 8,000 systems.
- In Morocco and Egypt, two similar programs are being designed based on the lessons learned from the success story in Tunisia.

## In Conclusion

- There are great opportunities for innovation in the area of Energy and technical assistance for Africa.
- Limited institutional capacity in most African countries to address energy issues, governments, industries & citizens need support & advice on sustainable energy policies and strategies.
- Which is the basis for UNEP's Energy Programme in Africa.

**Thank You**