



## The Clean Energy Initiative : Mozambique

Providing sustainable energy and employment from locally manufactured micro-wind turbines

### Project description

Since 2009 the project has provided electricity for rural areas using energy generated from micro wind turbines. This also generates employment and income, and promotes entrepreneurial skills at the local level by providing capacity building trainings.



### Business model

The initiative introduces wind power as an affordable source of energy through the provision of robust locally-built wind turbines.

The micro wind turbines are manufactured locally. The vocational training programme for unskilled youths and entrepreneurs supports the development of rural enterprises.

The majority of the population in Northern Mozambique lives in rural areas which commercial utilities using conventional approaches are not able to connect to the power grid. This gap can be filled through the use of wind turbines.

### Scaling up activities

- Tour 3 to 4 sites to demonstrate the principles and benefits of wind power
- 'Hands-on' practical workshops to demonstrate the principles of wind power to apprentices and students of the Eduardo Mondlane University in Maputo
- Establish and equip local workshop with tools, materials and components to enable cost-effective fabrication of micro wind turbines
- Manufacture and sell 8 micro wind turbines.
- Establish The Clean Energy Community Fund with contributions of the established apprentices; this will offer vocational training, providing the means for low-income communities to invest in wind power.

### Immediate needs

- Technical input to enhance the skill-set and knowledge about wind and solar PV hybrid, wind- powered water pumping systems and isolated micro-grids
- Technical support to gain insights into rural electrification
- Assistance in developing a commercial framework



# SEED Awards 2009

for entrepreneurship in sustainable development

## WINNER

### Partnership

- ❶ **The Clean Energy Company** oversees the manufacturing, installation and maintenance of the micro wind turbines.
- ❷ **Serralharia Angelina** helps with sourcing local components and materials, and with manufacturing the turbine's alternator frame mounting tower.
- ❸ **Aga Khan Foundation** (AKF) assists in the selection and support of low-income rural communities seeking to use wind power.
- ❹ **The Eduardo Mondlane University** offers the vocational training workshop facilities relating to renewable energy provision and rural electrification.



### Social, environmental and economic impacts

**Social impact:** The initiative aims to teach up to 10-12 apprentices, trainees and members of rural communities per year how productively to use wind power for income revenue. The vocational training programme for unskilled youths and entrepreneurs furthermore builds local capacities and provides youths with future employment perspectives.

**Environmental impact:** By tapping into the local recycling networks for the fabrication of wind turbines, the initiative advocates a sustainable 'zero-waste'

principle. There is a wealth of recycled automotive parts and reusable scrap metal available locally. In addition the initiative fully promotes renewable energy sources.

**Economic impact:** Company profits will be reinvested into 'The Clean Energy Community Fund' which will subsidise and facilitate micro enterprises' investment in wind power. This mechanism will allow small businesses to benefit economically from the added value and growth that wind energy provision can provide.

### Contact

**Jason Marc Morenikeji**

Email: [jason@tcei.info](mailto:jason@tcei.info) / [jason\\_morenikeji@hotmail.com](mailto:jason_morenikeji@hotmail.com)

[www.tcei.info](http://www.tcei.info)

### SEED Partners

SEED is hosted by the United Nations Environment Programme (UNEP). Other current partners are the United Nations Development Programme (UNDP); IUCN (International Union for Conservation of Nature); and the governments of Germany, India, the Netherlands, Norway, South Africa, Spain, the United Kingdom and the United States of America.



### About the SEED Initiative

The SEED Initiative identifies and supports promising small scale social and environmental entrepreneurs around the globe, entrepreneurs that while working towards a greener economy also tackle poverty, marginalisation and social exclusion.

SEED provides these social entrepreneurs with know how and networks, taking the lessons learnt at local level up to decision-makers to promote evidence-based policy making.

More information: [www.seedinit.org](http://www.seedinit.org)

### SEED Secretariat

[info@seedinit.org](mailto:info@seedinit.org)