



renewable
energy
& energy
efficiency
partnership



REEEP Insights into Clean Energy Development

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22 June 2010
Accra, Ghana.

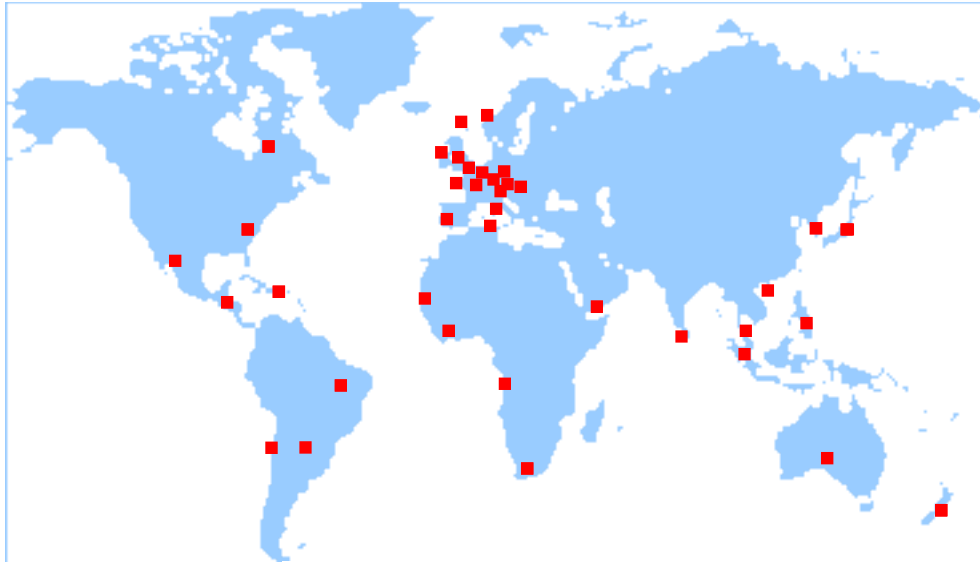
Presentation outline

- Introduction and background to REEEP.
- Insights into low carbon development.
- Policy mechanisms and options to accelerate the uptake of RE in Southern Africa
- Concluding remarks

REEEP vision and focus

- REEEP acts as a **market facilitator** by reducing market barriers for renewables and energy efficiency systems, with particular focus on **emerging markets and developing countries**
- REEEP **accelerates market development** by addressing:
 - policy/regulation development and improvement
 - finance and business models
- REEEP is driven by both a **top-down** and **bottom-up approach** to meet the real needs on the ground
- REEEP works with **governments** as well as with the **private sector**
- REEEP is committed to the achievement of MDGs and aims to **improve access to sustainable clean energy** for the poor

Well established regional and global network that is growing continuously



- 270+ partners including:
 - 45 governments
 - all G7 countries
 - 3 “plus 5” countries (Brazil, SA, Mexico)
 - states and key agencies from China and India (NDRC, IREDA)
 - development banks and international organisations

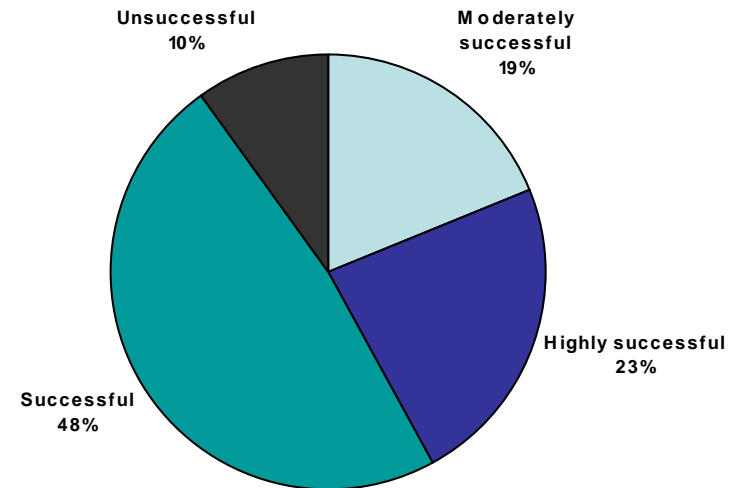
- 3000 friends of REEEP

- Currently funded by 13 governments
 - Austria, Australia, Canada, Germany, EU, Ireland, Italy, the Netherlands, New Zealand, Norway, Spain, US, and the UK (REEEP’s major donor)

An independent Analytical and Synthesis Study confirms that REEEP projects punch above their weight

- **90%** of the 47 projects studied in 2005-7 were rated **successful** against their stated objectives
- **Stakeholder participation** is a central feature of REEEP projects and an **instrumental factor in successes**
- REEEP is a relatively small player in the countries and sectors where it acts, but has **proportionally high results** for the level of funds disbursed
- Projects often have the desired **catalyst effect** in market development.

Project success vs. stated objective



Source: Consortium Le Groupe-Conseil
baastel Itée & Econoler International

REEEP's innovative delivery

regulation & policy

Uganda SWHS Policy:
Integrated policy combining buildings and power sector

Argentina Energy Policy:
Study to establish RE targets in Argentina

Energy regulatory framework in Namibia:
Development of national energy regulations

market creation

China Wind Energy Roadmap:
Planning support for China Wind Market

Social merchant bank:
Innovative end-user financing of small RES

Clean energy supply chain in Karnataka:
creation of small, rural RE/EE businesses

finance

Cornucopia hybrid financing:
Supporting RE in small-scale agricultural uses

Clean energy microfinancing:
Pacific Island MFIs supporting clean energy

PFAN model:
Expand activities to Mozambique & Uganda

REEEP insights into low-carbon development

Summary of key lessons drawn from
funding 130 projects over 5 years

Lesson 1: public sector role is vital



- In most countries, public sector institutions and government essentially own and control the energy sector
- In many markets, they are also among the largest end users of energy
- The potential for transition to renewable sources and for energy efficiency here is largely untapped

Lesson 2: energy efficiency should have highest priority



- In developing parts of the world, end-use energy efficiency can help:
 - make renewable energy more viable economically
 - make the most of tight generation capacity
- Appliance efficiency standards and labelling programmes are the most effective way of promoting end-use efficiency.
- Efficient management of the grid is critical in allowing RE to have a major share in the generation mix.

Lesson 3: CDM reform is needed



- The UNFCCC Clean Development Mechanism (CDM) has supported grid-connected RE sources such as wind, biomass and to a lesser extent hydro
- Has also improved attractiveness of industrial energy efficiency
- CDM has not proved able to help significantly develop:
 - Off-grid renewables
 - End-use energy efficiency
- Should also be widened to include buildings energy efficiency
- CDM is vital for helping developing countries adopt RE more widely

Lesson 4: energy matrix should suit the country



- Energy promotion programmes should reflect a country's resources and specific situation
- Leave technology choices to promoters of specific projects and initiatives.
- Allow multiple technologies and synergies to develop, and ensures choice of technology will fit the situation.
- Programmes limited to a specific technology can run into feasibility issues on the ground.

Lesson 5: SWH is ready for wide-scale use



- Solar water heating is one useful technology that is already commercially viable in most countries
- Superior to conventional alternatives
- An excellent demand-side technology for countries with peak energy demand problems
- Technology is already widely available
- Good vehicle for creating local jobs and wealth

Lesson 6: rural electrification v. rural energy



- Most energy development programmes focus on electricity needs only
- Thermal (heat, cooking) or mechanical (pumps, etc.) needs not included
- Result: fossil fuels are still used, defeating purpose of clean energy development
- Programmes should seek to integrate all energy needs

Lesson 7: public-private financing is difficult, but local financing is available

- Complexity of processes, the limited management skills and the general risk aversion in the public sector makes public-private RE financing in most countries very difficult
- Local development, rural and agricultural banks *do* have resources to support low-carbon energy systems and devices
- What is missing in most cases is a social merchant bank which can channel the funds to low income recipients



Lesson 8: microfinance can transform rural energy services



- Microfinance institutions offer significant opportunities for changing rural energy services
- Three key success factors:
 - Lower transaction costs
 - Long-term availability of low-cost resources
 - Rural credit risk management

Lesson 9: recipients prefer partnership



- Several key developing countries prefer a framework where the recipient can manage the process themselves and call on international expertise as needed
- Contrasts with many bilateral agencies where recipients have little or no influence in the process

Lesson 10: REEEP's bottom-up approach works



- Process of engaging with all partners in the region annually, and identifying local needs as priorities is unique.
- Priorities bubble up rather than being dictated down
- Regional Secretariats are on the ground to provide input to governments, engage key stakeholders, and help refine/target project proposals
- Projects usually have local implementers and build local capacity on the ground

Lesson 11: knowledge management



- Managing knowledge from the projects is important in maximising impact and triggering replication
- General communication
 - Articles, news items, press releases, key events
- Specific tools for developers
 - Digital outputs and documents from projects available online
- Forum for exchange of best practices



- **HOW?**

Examples of policy mechanisms (1): Currently deployed in developed countries.

- **Feed-in tariffs** (e.g. Germany) - guaranteed price for output or a premium rate on the market price of RE produced.
- **Quota mechanisms** (e.g. UK) – or renewable portfolio standards (RPS). Obligation for electricity suppliers to take a certain amount of sustainable power or for customers to source a proportion of their power from RE.
- **Tender schemes** (e.g. Ireland) - competitive bids are put forward to government for individual renewable energy projects following a call for tenders launched by governments.



Examples of policy mechanisms (1): Currently deployed in developed countries.

- **Voluntary mechanisms** such as green certificates (Netherlands) - can be used to support RE generation. Can be traded to consumers willing to pay price premium for sustainable energy.
- **Various hybrid schemes** that may involve any 2 or more mechanisms mentioned above.
- Providing **subsidies** to renewable energy-based power systems.
- Traditionally, these mechanisms have been used on the supply side of systems (power generation and distribution) however, they can be used to **drive demand increases** for electricity from RE sources.

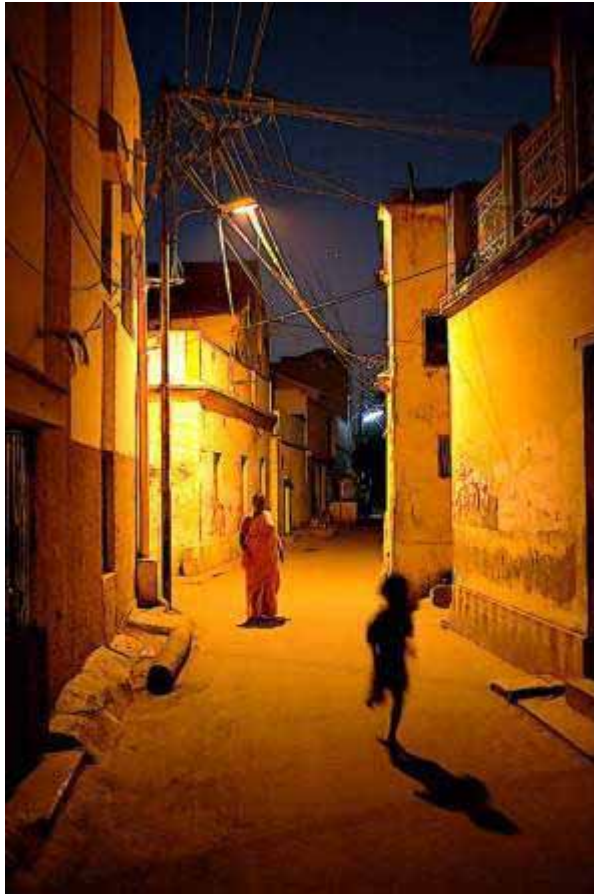


Examples of policy mechanisms (2): Currently deployed in Sub-Saharan Africa

- Establishing standard **power purchase agreements** (PPA's) to ensure green IPP integrated
- Ensuring **long-term generation licences** and PPAs.
- Developing **favourable tariff setting** and adjustment formulas.
- Setting **explicit targets for the RE share** in the electricity mix.
- Enacting legislation to provide **incentives for RE industry**.
- Providing **subsidies to RE-based systems**, especially rural ones
- **Feed-in tariffs** gaining prominence.



Concluding recommendations



- **Governments are vital to setting the stage**
 - establish stable, long-term policy conditions that will encourage uptake of clean energy
 - if governments prioritise RE, other actors will follow to help finance it
- **Develop coordinated RE approach.**
 - coordinated RE plans, integrated actions
- **Explore industrial applications for RE**
 - increase technical expertise and job creation
- **Promote small-scale RE applications**
 - direct benefits – consumers can become producers (and sellers) of energy
 - indirect benefits – with access to energy, consumers and communities can generate income for themselves.

Thank you!

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