



renewable
energy
& energy
efficiency
partnership



Enabling the environment for micro-hydro in developing countries

Sustainable Energy For All Conference

16 May 2012

Thomas Thorsch-Krader

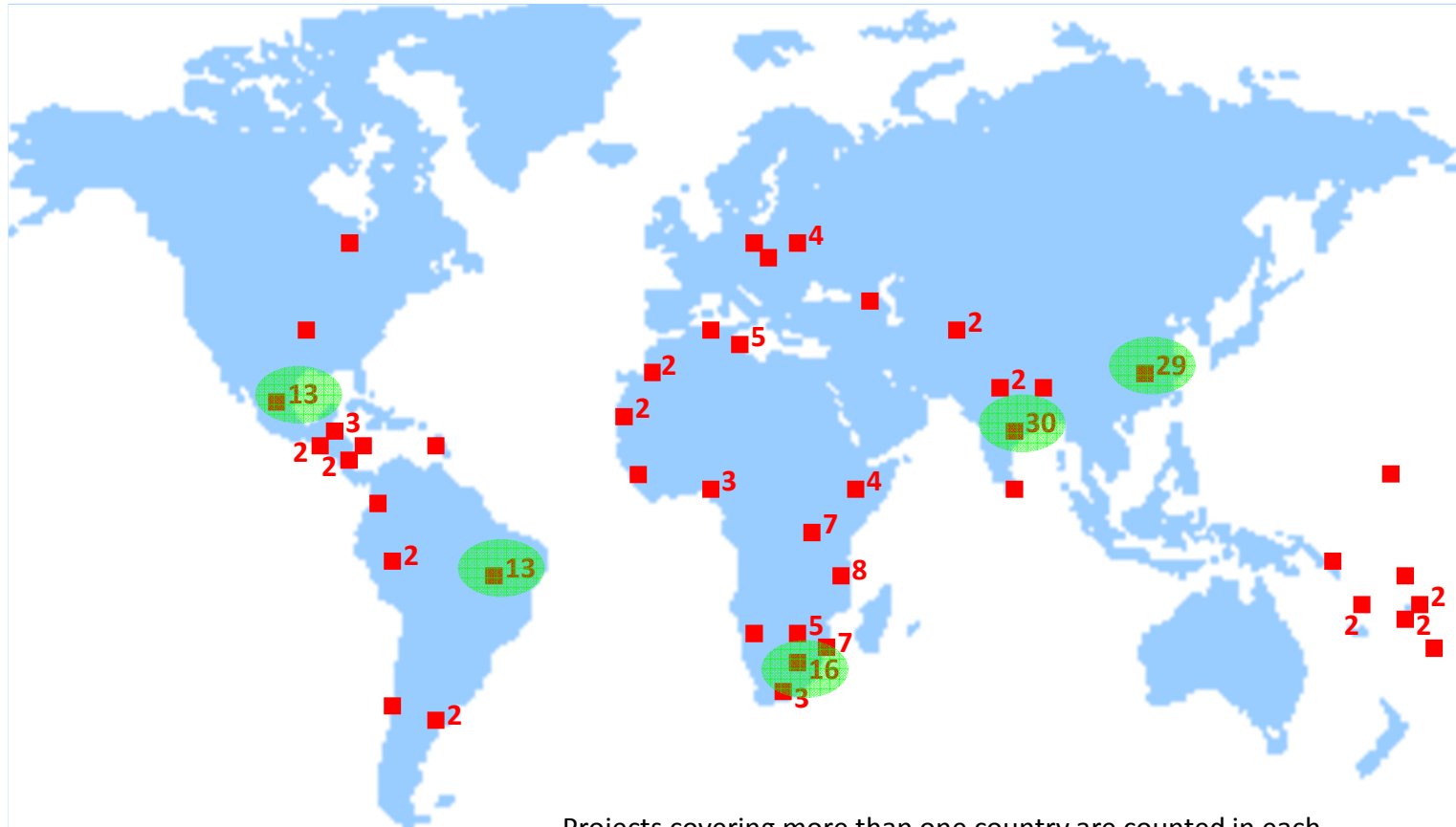
What is REEEP?



**renewable
energy
& energy
efficiency
partnership**

- A **market accelerator** for renewable energy and energy efficiency projects
- Connect **private and public sectors**
- Focus on **energy-poor** developing economies
- **Intervention mix:** market, policy and finance
- Technology mix: **hydro**, solar, wind, biomass

REEEP has funded 150+ projects in nearly 50 countries



Projects covering more than one country are counted in each

Micro-hydro | REEEP

REEEP micro-hydro investments

- Tend to be through indirect interventions
- Climate Technology Initiative / Private Financing Advisory Network in Uganda and Mozambique
 - ✓ Obtain funding for 4-8 clean energy projects

REEEP direct micro-hydro project

- OFID / Institute for Sustainable Technologies
 - ✓ Develop community center powered by micro-hydro in Tanzania

OFID-REEEP funded project in Tanzania: Innovative Communal Utility and Meeting House

Project site: Village of Mwamgongo (population 8000)

Project purpose:

- Build 50 kW micro-hydropower plant + install a PV array of 10 kW
- Erect a small local grid for energy consumers: medical center + small businesses
- Covers battery charging, facilities, telephone services
- Train people in the operation and maintenance of equipment

Benefits:

- Constant electricity generated and accessible for households and businesses
- Direct creation of local jobs and possibilities of income generation
- Necessary condition to attract tourism > economic growth



Structuring micro-hydro projects

Priorities

1. Leveraged funding
2. Access to finance
3. Technical assistance / community training
4. Income generation
5. Risk mitigation
6. Scalability

Micro-hydro upsides | REEEP

- Long-term resource (running time @ 20 years)
- Feed-in tariffs
 - ✓ Investing in systems that will interact with evolving grid maps create **income potential**
- Potential for CO₂ reduction credits (small hydro)
- Community involvement
 - ✓ Milling grains

Micro-hydro flags | REEEP

Reasons for REEEP's limited exposure to micro-hydro

- ✓ Short-term investment window (2 years)
- ✓ Relatively small capital investment
- ✓ As a mature technology, M-H is further along development curve
- ✓ Standalone, rural, not easily scaleable

Risks

- ✓ Long-term – climate change
- ✓ Community organisation, buy-in
- ✓ Peak demand

Micro-hydro | REEEP





renewable
energy
& energy
efficiency
partnership



Thank you.

REEEP

Vienna International Centre, Room D-2166
Wagramer Strasse 5
A-1400 Vienna, Austria

info@reeep.org

www.reeep.org
www.reegle.info