



The global challenges  
of tomorrow drive our work  
today. We shape sustainable  
development worldwide.

**IRENA - CYPRUS EVENT ON  
RENEWABLE ENERGY APPLICATIONS FOR ISLAND TOURISM**  
*Intercontinental Hotel, Aphrodite Hills Paphos, Cyprus 29-30 May 2014*

STRATEGIES TO ACCELERATE RENEWABLE ENERGY DEPLOYMENT IN  
ISLAND TOURISM - DEVELOPMENT PARTNERS' EXPERIENCES

**Alexander Haack**, Team Leader Energy, GIZ



## Strong support for renewables

- Support for the development and implementation of energy supply systems based on renewable energies on islands and isolated mini-grids on the mainland.
- In 2012, more than **1.9 billion USD** were spent **on energy related projects in over 60 partner countries**, making energy the largest sector within the Federal German Ministry for Economic Cooperation and Development.
- Close **collaboration with the private sector** (promoting entrepreneurial activity and thinking; working to improve conditions for private sector engagement; helping to create vibrant, attractive and fair economic areas)



## GIZ Worldwide

- As a federal enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development.
- GIZ operates in more than 130 countries worldwide.
- In Germany we maintain a presence in nearly all the federal states.
- GIZ employs more than 17,000 staff members across the globe – some 70% of whom are employed locally as national personnel

In addition there are around:

- 1,000 development workers
  - 599 integrated and 453 returning experts
  - 493 *weltwärts* volunteers
- In 2012, GIZ had a business volume of EUR 2.3 billion





## GIZ Services in the energy sector

- Increase capacities and competencies
  - Provision of up to date technical and management expertise
  - Strengthening of sector institutions and key stakeholders
- Create favourable framework conditions
  - Supporting conducive national policy frameworks
  - Supporting the implementation of national RE strategies
  - Promoting private sector participation
- Facilitation multistakeholder dialogue in the energy sector
  - Working as an „honest broker“ between policy institutions, society and the private sector
  - Supporting national or regional policy processes
- Technical Advice
  - Technology transfer and introduction of innovative RE/EE-technologies
  - Planning and implementation of demonstration projects





## Fields of action (products) in the energy sector



### Basic energy services

- Household energy
- Rural electrification



### Renewable energies

- Wind energy
- Bioenergy
- Sustainable use of large-scale water power
- Solar energy
- Others (Geothermal energy ...)



### Energy efficiency

- EE in buildings
- EE in End-Use Equipment
- EE in the industry
- EE in thermal power plants
- EE in the transport sector (new)



### International energy policy

- International processes and networks
- Energy planning
- Cooperation with business



# Soneva Fushi Resort, Kunfunadhoo Island, Baa Atoll

*Most advanced case of Renewable Energy (RE) use on the Maldives*

## Achievements

### Solar Power

70kW Photovoltaic (PV) power plant,  
the largest renewable energy plant in the  
Maldives when installed in November 2009.



### Biomass to Charcoal

Wood waste is made into biochar fertilizer and charcoal that is used at the resort.

The Adam Retort oven cooks the wood, allowing to store carbon, improve soil fertility and reduce imports of charcoal for barbecues



# Soneva Fushi Resort, Kunfunadhoo Island, Baa Atoll

## Obstacles

### Solar Power

- Not enough space on buildings and on the island to use full solar potential, because of natural roof material and use of tree shadow to avoid direct solar heating of villas;
- Lack of storage for solar energy to meet high energy needs during the night.



### Wind Power

- Soneva in its plan to become the first carbon positive resort planned to support a wind turbine on the neighbouring island of Eydafushi, but failed due to lack of wind data and possibility to feed in local network
- This Suzlon 1,5 MW turbine was built by Soneva with NGO partners in Tamil Nadu, India, to support local communities and offset all flight emissions of Soneva guests.





## Banyan Tree Hotel, Seychelles

### Actions and impacts:

- Tests to transform used cooking oil into Biodiesel - successful
- Now running the resort's entire fleet of diesel vehicles on recycled cooking oil
- Hotel also collects used cooking oil at no charge from nearby resorts (usually shipped to Africa for disposal)
- Resulted in wider plan of implementation for similar biofuels in other locations in 2010
- Total production approximately 2,000 litres of Biodiesel a month; savings: US\$1,700 / month







## The case of the Dominican Republik

- 40% off on RE Investment (reduced VAT) does not work with many hotels who are exonerated from the VAT for 5 or 10 years;
- In all provinces energy **monopolies** exist (up to 50 years). Neither energy contracting nor power purchase agreements between hotels and RE investors possible;
- **Exception:** private company builds and operates a RE facility to generate own energy with a limit of 1 MW. **But:** agreement needed with the energy provider – mostly refused;
- No **finance** offer with acceptable conditions for hotels to build RE facilities – for Peso-credits, 22% interests have to be paid; access to international finance at more favorable conditions is not given for hotels at current.



## The case of the Dominican Republik (continued)

- The **3 major solar parks** planned for the Dominican Republic do all have **substantive financial problems**;
- A major reason was that the contract for the **feed-in tariff** requires to start **energy delivery within one year**, which is virtually impossible under the local conditions;
- All **wind parks** built so far in the DR do not resist the **rapid corrosion** due to the hot, humid and salty air and will be out of order in 1-2 years; one private investor already had to close his wind park, another major project was stopped;
- The **public energy firm** which would have to pay up to 40 US\$ cents as feed-in tariff is **chronically under-financed**; as a consequence, they have declared not to be able to implement the feed-in tariff regulation.



## Typical barriers for renewable energy in the tourism sector on islands

### **Policies**

- The tourism sector is affected by national legislation in the energy sector. Changing businesses means changing the business environment.

### **Subsidies**

- In some islands subsidies drive down energy prices thus making investments in RE/EE a non-economical choice.

### **Administrative barriers and lacking capacities**

- Unclear, slow administrative processes.
- Building codes, standards etc.
- Specialized human capacities are a scarce resource



## Typical barriers for renewable energy in the tourism sector on islands

### Local energy providers, often monopolies

- Often, local energy providers do not agree to allow RE being fed into their energy supply system, especially if they have a safe and considerable profit from conventional energy generation;
- If local energy providers have the monopoly to sell energy, this makes it impossible to implement energy contracting solutions with hotels even if no feeding-in is necessary.

### The “technology gap”

- 100% RE Systems (especially on smaller islands) are costly;
- Hybrid systems are possible to some extent but not very popular as they require hotels to operate and maintain 2 separate energy systems;
- In some places, early trials with not well developed RE equipment, created a negative image of RE technologies.



## Typical barriers for renewable energy in the tourism sector on islands

### Owner-operator constellation (international brand hotels):

- The **owner** has no interest because he does merely profit from energy savings or renewable energy.
- The **operator** normally has a keen interest in saving energy/costs (for many hotels energy is the main cost driver) – but cannot get access to finance for investing in an asset that does not belong to him.

### Smaller hotels face higher costs:

- Most of the small hotels do not have the owner-operator-problem. Instead, their relative costs for the investment are higher, leading to longer payback times. Low Cash-Flow means low capital reserves which are spent on renovation every 5-10 years.



## Overcoming barriers

- **Analyze thoroughly** past successes and failures of initiatives and trials / pilot projects to promote RE for hotels and tourism -> identify the specific obstacles and success factors for such investments **under the specific country conditions**
- Feasible approaches and solutions should be identified in **multi-stakeholder formats** (hotel owners, authorities, investors, project developers)
- Develop and implement a **joint strategy** with hotel&tourism and energy sector and other relevant stakeholders in order to make RE use in hotels&tourism an easy and attractive option



Thank you

[alexander.haack@giz.de](mailto:alexander.haack@giz.de)

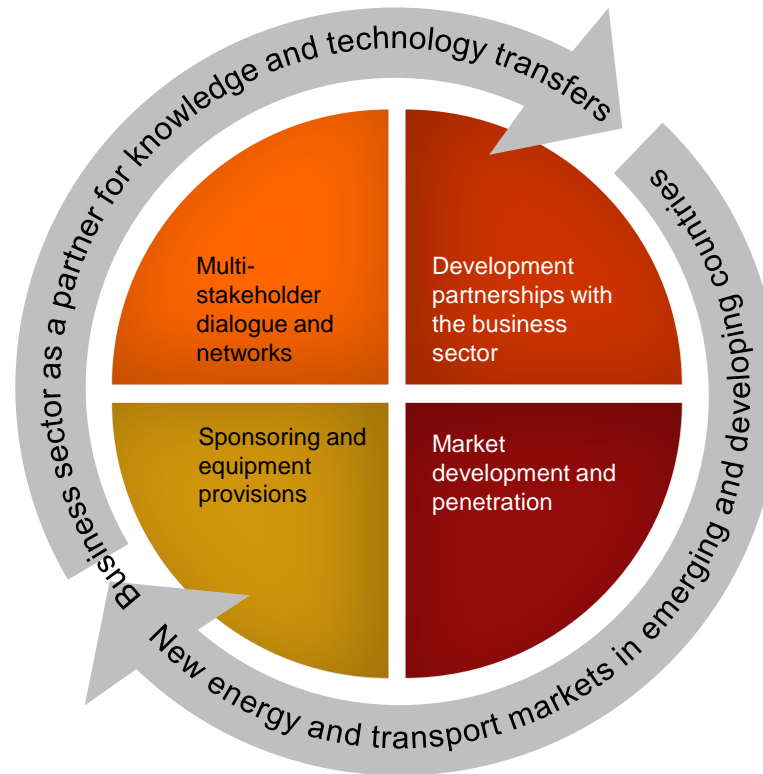
[www.giz.de](http://www.giz.de)





## Cooperation with the Business Sector

- Cooperation with German associations
  - Development cooperation scouts
  - Bilateral energy partnerships
- Sponsoring and equipment provisions



- Integrated development partnerships
  - Competition of ideas
  - Strategic alliances
- Project development programmes
  - Technology support programmes





# Multi-level approach for GIZ renewable energy activities

