

Renewable Energies on Islands

Supporting IRENA's Global Renewable Energy Islands Network (GREIN)

This project is funded by

The German Federal Ministry for the Environment, Nature Conservation,
Building and Nuclear Safety (BMUB) / International Climate Initiative (IKI)



Content

1. Project definition
2. Small Island Developing States and Renewable Energies
3. State of affairs on islands states in the Pacific, the Caribbean and West Africa
4. Activities to be undertaken in the context of the project
5. Expected impacts of the project

- 1 -

Project definition



Overview

- Title: „Renewable Energies on Islands – Supporting IRENA’s Global Renewable Energy Islands Network (GREIN)“
- Scope: Policy advice
 - Development of roadmaps
 - Implementation of roadmaps
 - Strengthen GREIN structures
- Duration: 2 years (June 2014 – May 2016)
- Project funded by BMUB / IKI (International Climate Initiative)
- Implementation: GIZ jointly with IRENA
- Location: 3-5 islands in 3 regions (Pacific, Caribbean, West Africa)

- 2 -

Small Island Developing States and Renewable Energies



Characteristics of Small Island Developing States (SIDS)

- Vulnerability to effects of climate change
- Scarce natural resources
- High exposure to natural hazards
- High population densities and growth rates
- Strong dependence on imported fossil fuels for energy needs (severe impact of oil prices volatility)
- High energy infrastructure costs
- Electricity prices among the highest in the world
- High potential of renewable energies



On SIDS, Renewable Energies are still facing challenges

- Overall share of RE on most SIDS is still low
- Political, administrative, technical and financial barriers complicate the implementation of RE
- Typical barriers:
 - Lack of roadmaps and regulatory frameworks that would encourage investment in RE projects
 - Missing private sector participation
 - Lack of experience and expertise
 - Lack of consultation between stakeholders





Expected benefits of increased deployment of RE on SIDS

- Climate change mitigation
- Decreasing the trade balance deficit and volatility of expenses for electricity
- Decreasing challenges of energy security due to increasing and volatile oil prices
- Decreasing the environmental impact and risk of fossil fuel imports
- Multiplier effects through lessons learned at local level, in the region and internationally (→ GREIN)



© GIZ / Sumi Feufel

- 3 -

State of affairs on islands states in the Pacific, the Caribbean and West Africa



Snapshot: Pacific Islands States

- Latest regional planning document towards transforming the energy system: Framework for Action on Energy Security in the Pacific (FAESP)
- An Implementation Plan to the FAESP was endorsed in 2011, supporting national efforts on implementing policies and roadmaps
- Key priorities under the “Energy Production and Supply” theme:
 - Resource assessment
 - Investment in RE
 - Capacity development
 - Increase share of RE in energy mix
- Some Pacific Island States already endorsed National Energy Roadmaps



Snapshot: Caribbean Island States

- In 2013, CARICOM Ministers of Energy approved the Regional Energy Policy (REP)
- Goal of REP: Fundamental transformation of the energy sector through the provision of secure and sustainable supplies of energy
- REP seeks to guide the Community in its pursuit of Energy Efficiency and Renewable Energies
- RE target of an overall 47% share in the region by 2027
- In the context of the Caribbean Sustainable Energy Roadmap and Strategy, quantitative regional level targets for sustainable energy to be established



Snapshot: West Africa – Cape Verde

- Establishment of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) in Praia, Cape Verde, marks a clear statement towards a sustainable use of energy
- Energy framework and legislation in Cape Verde:
 - National Energy Plan 2003-2012
 - Law Decree n°1/2011
 - Growth and Poverty Reduction Strategy Paper
 - Renewable Energy Plan 2010-2020
- RE target: share of 50% by 2020 **(... or up to 100% !?!)**
- Target still needs to be broken down into concrete action pathways

- 4 -

Activities to be undertaken
in the context of the project



Work packages of the project

#1: Development of roadmaps

Formulate clear pathways for an effective and efficient transition towards RE

- Most cost effective options
- Optimal supply cost curve

#2: Implementation of roadmaps

Operationalize national roadmaps, energy policies and strategic action plans

- Workshops
- Draft regulations, codes and standards
- Financial models
- Cope with barriers

#3: Strengthen GREIN structures

- Interest Cluster Activities
- Policy exchange
- Know-how transfer through regional organizations serving as regional hubs
- Thematic studies

- 5 -

Expected impacts of the project



SIDS – Transformation towards Renewable Energies

- Support authorities in the development of National RE Roadmaps
- Make roadmaps operational by
 - identifying political, administrative and technical barriers
 - assisting in the development of policies and action plans (regulations, standards and codes) to overcome barriers
 - strengthening expertise and capacities of key actors
 - identifying financing models and supporting private developers
- Share results and lessons learned through IRENA's "Global Renewable Energies Islands Network" (GREIN)
- Integrate regional organizations as know-how hubs
- Climate change mitigation



Contact information

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn
Germany

Energy for Sustainable Development
Water, Energy and Transport Division

Mike Enskat
Mike.Enskat@giz.de
+ 49 (6196) 79-4100

Uwe Mades
Uwe.Mades@giz.de
+ 49 (6196) 79-1392

International Renewable Energy Agency (IRENA)

IRENA Innovation and Technology Centre
Robert-Schuman-Platz 3
53175 Bonn
Germany

Dolf Gielen
dgielen@irena.org
+49 (228) 3917-9091

- Backup-



What is GREIN?

- GREIN stands for the Global Renewable Energies Islands Network
- GREIN was created following the Malta Communique on Accelerating Renewable Energy Uptake for islands in 2012, where Ministers from 48 countries called on IRENA to establish this global network
- GREIN provides a platform for pooling knowledge and sharing best practices to speed deployment of RE on islands
- GREIN showcases the business case for RE technologies on islands
- GREIN invites participants to discuss on six main themes (clusters):
 - Roadmaps for Deployment
 - Power Grid Integration
 - Resource Assessment
 - Tourism Applications
 - Desalination
 - Waste to Energy



Insight into further activities of GIZ in West Africa

- Program: “Promoting a Climate-Friendly West African Power Pool”
- In collaboration with ECREEE, it is planned to promote the use of RE connected to the grid and improve Energy Efficiency within the ECOWAS community
 - Development of NREAPS, NEEAPs and SE4ALL action agendas as well as a comprehensive ECOWAS Capacity Building Action Plan
 - Technical support to RE “flagship” projects preparatory phases
 - Reduction of distribution losses
- Duration: 3 years (Nov 2013 – Dec 2016)
- The program receives funding from the German Federal Ministry for Economic Cooperation and Development (BMZ)