

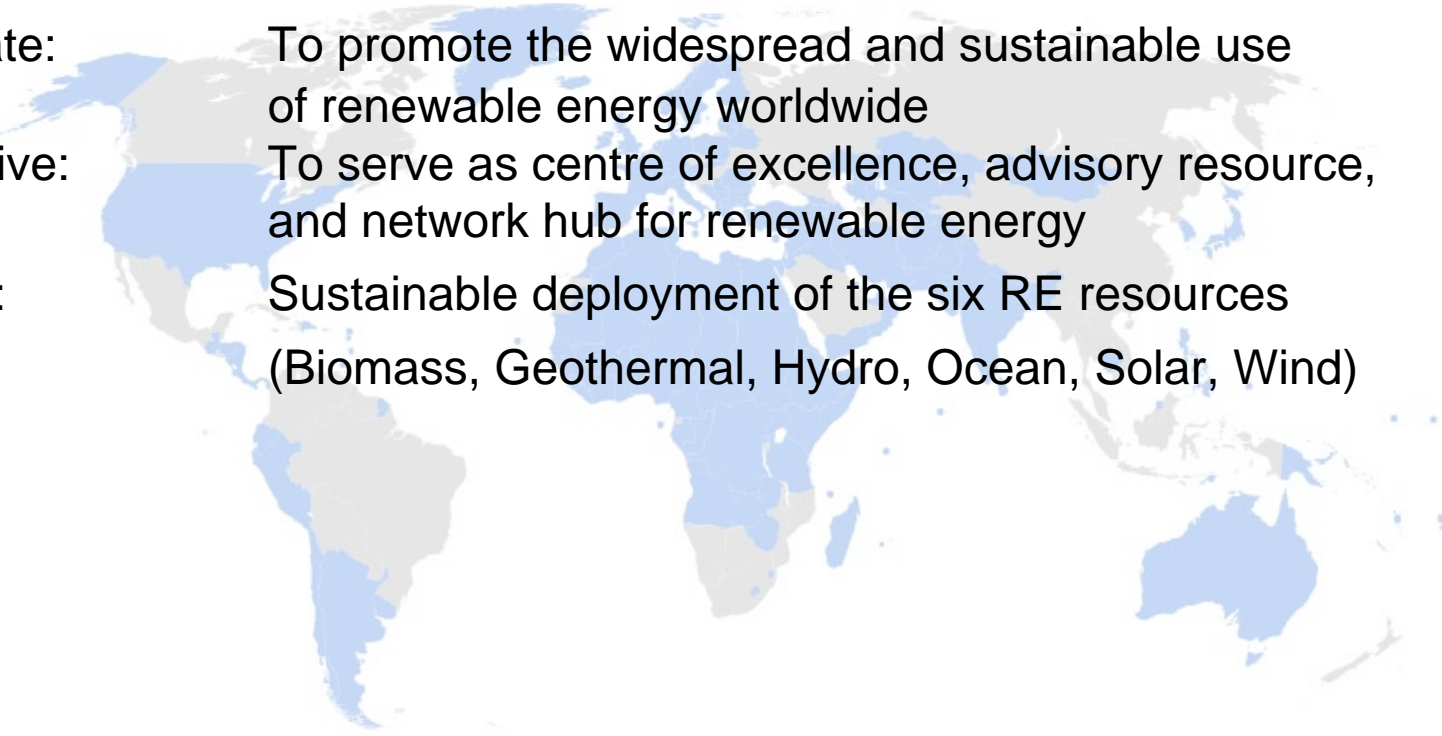
# **SIDS and IRENA**

**Elizabeth Press**

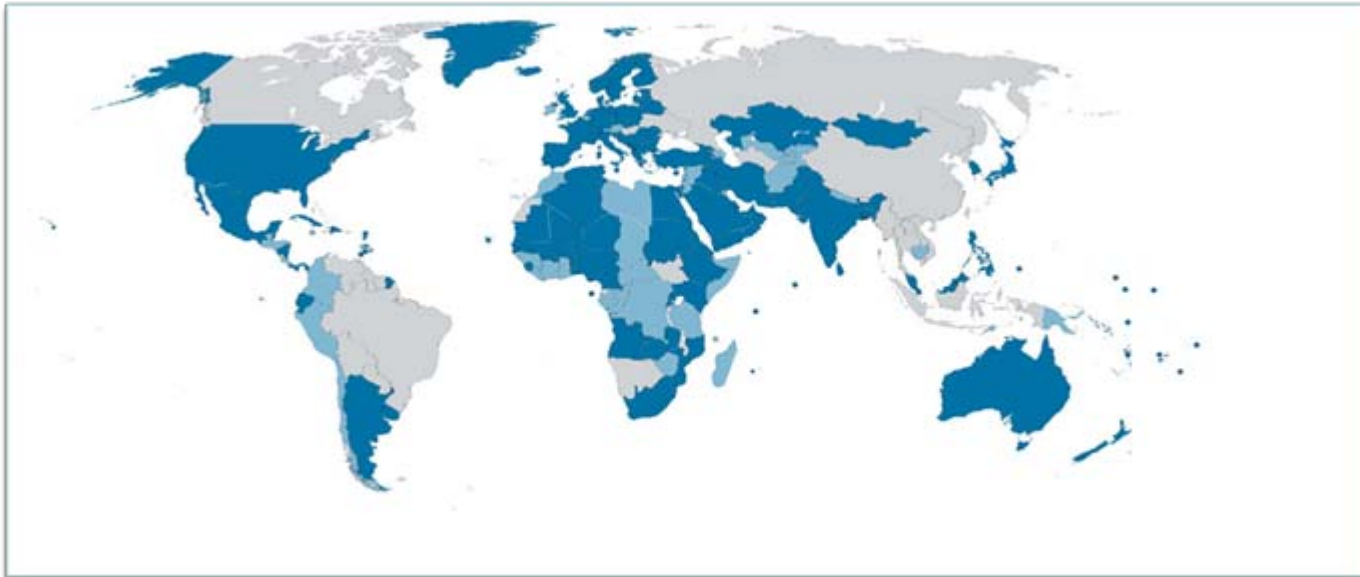
**Deputy Director**

**IRENA Innovation and Technology Centre**

# About IRENA

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- Mandate:** To promote the widespread and sustainable use of renewable energy worldwide
- Objective:** To serve as centre of excellence, advisory resource, and network hub for renewable energy
- Scope:** Sustainable deployment of the six RE resources (Biomass, Geothermal, Hydro, Ocean, Solar, Wind)

- Formally established in 2011
- Headquartered in Abu Dhabi, United Arab Emirates
- Offices in Bonn, Germany (IRENA Innovation and Technology Centre) and New York, USA
- Permanent Observer to the United Nations
- Some 120 staff, 70 core staff from 41 countries



- 118 Members (as of 04 Aug 2013), including 22 SIDS
- 43 additional countries in the process of becoming Members, (7 SIDS)

 Members

 States in Accession

# IRENA's programmatic work





- Largest-ever initiative to **assess renewable energy potential** on a global scale
- Compiles data on **high-resolution maps**
- **39 countries contributing data** (as of May 2013)
- Initially includes **solar and wind** data, in the future will also include data on bioenergy, geothermal and other renewable energy sources
- Will incorporate **cost data** and available **infrastructure**



- **Abu Dhabi Fund for Development (ADFD)** concessional loans
- Technical review by IRENA
- **USD 350 million** over seven years
- Supporting **innovative, replicable** renewable energy projects in developing countries
- Applications from **nearly 50 countries** for first, USD 50 million funding cycle (2013)
- Requests for over USD 850 million in first cycle



- **SE4ALL RE Hub**
- The goal is to **double the share of global energy mix by 2030**
- **Assess implications** for countries, sectors and technologies
- Evaluates impacts on **sustainable development, climate change, cost and investment, and policy**





### Renewables Readiness Assessment

- Country-led, collaborative process to shape **national action plans**
- Identifies **effective policies** for renewable energy deployment
- Crafts **investor-friendly regulations**
- Brings together stakeholders
- Provides framework for future IRENA **engagement and advice**

RRAs:  
**11 countries**  
 (June 2013)

## IRENA Engagement in SIDS

- Early focus:
  - Pacific Leaders Meeting, 13 January 2012, Abu Dhabi (Communiqué)
  - Malta Summit, June, 2012, Malta (Communiqué)
  - Renewable energy readiness assessments (Kiribati, Grenada)
    - Support island energy roadmap development (Tonga, Nauru)
    - 3 technology expert workshops for international best practice technology and energy transitions (Sydney, Okinawa, Vanuatu)
    - Various publications document the outcomes and recommendations



■ **Global Renewable Energy Islands Network (GREIN)** is a platform for pooling knowledge, sharing best practices and seeking innovative solutions for accelerated uptake of clean and cost-effective renewable energy technologies on islands.



- GREIN develops clusters of interested islands aimed at resolving specific issues
- The development of an interest cluster involves gathering interested islands, selecting a cluster leader and preparing a work plan to resolve common issues
- The interest clusters on RE technology roadmaps and grid integration were activated at the Pacific Energy Summit in March 2013

## Ingredients to a GREIN Interest Cluster

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## Assessing Grid Stability with a Greater Share of Renewable Power

- Aims of IRENA study:
  - Provide islands with better understanding of the levels of variable RE integration without affecting the power quality (energy planning).
  - Develop capacity in islands to conduct grid stability assessment.
  - Develop a comprehensive methodology for the grid stability assessment.
  - Provide technological options for grid stability and RE integration
- Training: 26-28 February, Bonn, first pilot study for Palau in collaboration with PPA, 10-12 April, Palau
- Four more case studies in 2013, continue in the years ahead

## Some islands RE roadmaps

- Pathways and roadmaps which lay out implementation plans and strategies are critical to achieve the transition to RE in islands.
- Existing and planned RE roadmaps
  - Pacific region: Tonga (TERM), Vanuatu, Nauru, Micronesia, Tuvalu
  - Caribbean region: Antilles, Dominican Republic, Haiti, US Virgin islands, C-SERMS (regional roadmap)
  - AIMS: Cape Verde, Jamaica
  - Any others?



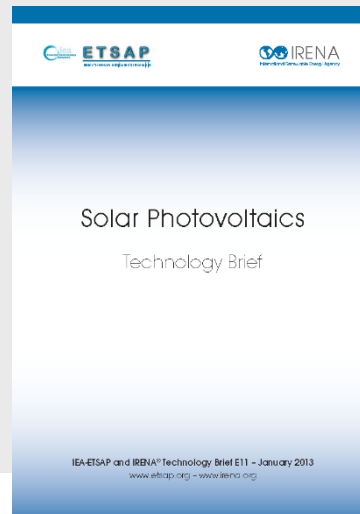
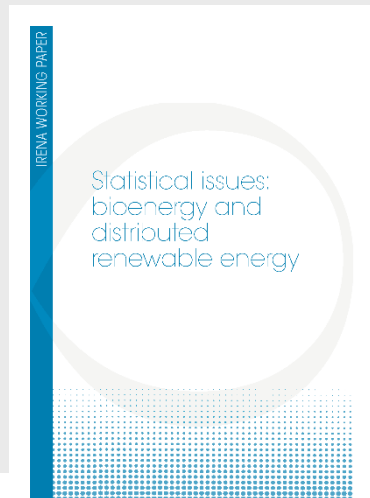
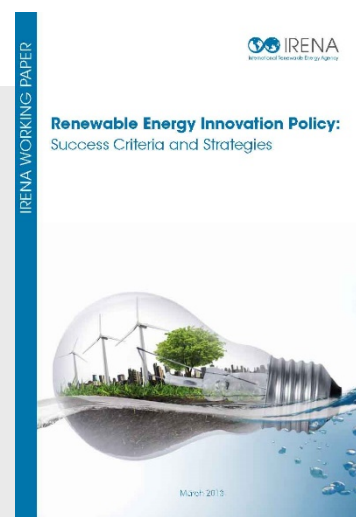
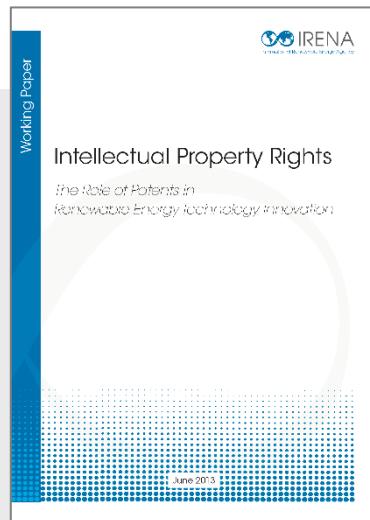
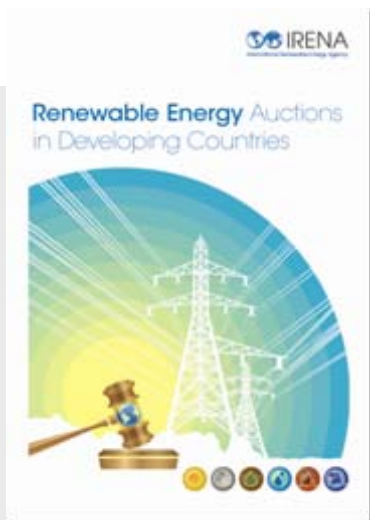
## Roadmap development methodology for islands

- Develop a clear understanding of the current state (baseline)
  - Reliable energy use statistics
  - Renewable Readiness Assessment / Resource Assessment
  - Regional/technological context assessments incl. evaluation
  - Grid Stability Study
- Objective setting considering political and institutional aspects
  - Energy planning starting from today's situation with a 10-20 year time horizon
  - Policy objectives and policy framework should be credible and stable
  - An institutional framework that can carry a transition
  - A pathway and concrete actions to get from today's situation to end point
- Discussion of roadmap with stakeholders
  - Agreement of way ahead – which actions in which order
  - Identification of tasks and implementation framework
  - Identify a sustainable strategy to maintain or obtain necessary expertise
  - Bankable project proposal development, financing, sustainable business models etc
- Plan – Do – Check – Act cycle
  - Monitor and report progress against roadmap
  - Adjust roadmap regularly if necessary

## Ongoing and planned activities

- Grid stability assessments
- Renewables Readiness Assessments
- Project Navigator: design bankable RE project proposal
- Capacity building activities: policy and regulation, finance and investment, technical capacity
- Assessment of RE for transport and energy/water/land use nexus issues
- Pacific regional roadmap – launch at the PIF meeting in Marshall Islands
- Ongoing cooperation with countries and partners

# Recent Publications







**Thank you !**

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