SIDA and IRENA

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About IRENA

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
Membership

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

Knowledge, Policy and Finance Centre KPFC

IRENA Innovation and Technology Centre IITC
Roadmaps, Technology Solutions, Scenarios and Strategies, Cost and Performance, Facilitation of Markets, RE Standardization, Innovation/IP/R&D

Country Support and Partnerships CSP
RRA, National Strategies, Regional Collaboration, Partnerships and Technical Cooperation, Capacity Needs Assessment, Regional Capacity Building, CB Collaboration, Education and Training Global Database

Analysis
Dialogue
Networks

Input, Tools, Support

Feedback
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
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
Thank you!

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