



# How SIDS generate financial resources for adaptation through the energy sector: SIDS DOCK case study

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# SIDS DOCK

- ▶ SIDS DOCK serves as a “docking station” to increase SIDS access to international financing, technical expertise and technology, as well as a link to the multi-billion dollar European and US carbon markets
- ▶ Mission: To catalyze the transformation of the energy sector of SIDS to increase energy security, reduce greenhouse gas emissions (GHG), and **generate resources for investment in adaptation to climate change**

25%

*25 percent  
(2005 baseline)  
increase in  
energy  
efficiency*

50%

*50 percent of  
electric power  
from renewable  
sources*

25%

*25 percent  
decrease in  
conventional  
transportation  
fuel use*

BY  
2033

*SIDS DOCK  
needs to  
mobilize in  
excess of USD  
20 Billion*

# Maldives: Climate Change, the single biggest threat to humanity.“

- ▶ About 1200 islands (189 inhabited and 105 active resorts)
- ▶ Population: 350,000
  - ▶ Greater Male Region (Capital Island): about 130,000
  - ▶ Outer Atolls : about 220,000
- ▶ Average elevation is 1.5 meters
- ▶ Economic Activity: Tourism and Fisheries
- ▶ GDP: US \$2.2 billion
- ▶ Heavily import dependent: over 90% of what is used is imported
- ▶ Extremely vulnerable to impacts of Climate Change
- ▶ Emission: 1300 - 1500 Gg of CO2 equivalent



# Challenges to Adaptation

***“The measure of intelligence is the ability to change.” — Albert Einstein***

Life is neither static nor unchanging. With no individuality, there can be no change, no adaptation and, in an inherently changing world, any species unable to adapt is also doomed.” — Jean M. Auel

- ▶ Low lying small island
  - ▶ Increases the vulnerability to impacts of climate change
  - ▶ 1.5m average altitude
  - ▶ 80% lives 100m from shore (not by choice)
- ▶ Lack of economic strength
  - ▶ Adaptation requires high cost for small island geography
  - ▶ Maldives has a debt of 34.9% of GDP
- ▶ Lack of technical capacity
  - ▶ Not enough trained people available



# Energy Sector

*"We first make our habits, then our habits make us." — John Dryden*

- ▶ Key service sector for all economic activities and services
- ▶ Almost exclusively dependent on fossil fuel (>99% as of 2012)
- ▶ Energy Use: 247,038 toe (as of 2012)
- ▶ Expenditure: **US \$476 million (as of 2012)**
- ▶ Energy use is distributed as below
  - ▶ Electricity generation and use : 40%
  - ▶ Transport : 54%
  - ▶ Other uses: 7%
- ▶ Growth rate: 7-10% annually
- ▶ Responsible for >90% of GHG emissions



# Scaling up Renewable Energy Program (SREP)

- ▶ Grant of 30 million dollars from Climate Investment Funds initially
- ▶ Exclusively for renewable energy investments and readiness activities in electricity generation sector
- ▶ Split into 3 parts
  - ▶ ASPIRE: Accelerating Private Investments in Renewable Energy
  - ▶ POISED: Preparing Outer Islands for Sustainable Energy Development
  - ▶ TA: Technical Assistance
- ▶ **SIDS DOCK to contribute to enhance SREP investment plan**



# Accelerating Private Investments in Renewable Energy (ASPIRE)

- ▶ Renewable Energy Investments under Feed in Tariff
- ▶ Investments include:
  - ▶ Solar PV investments in Greater Male Region
  - ▶ Solar and Wind investments in outer islands
  - ▶ Utilization of Waste to Energy where possible
  - ▶ Implementation support and institutional development
- ▶ Expected outcome:
  - ▶ **US\$ 92 million investments**
  - ▶ 20-25 MW RE installations



# Preparing Outer Islands for Sustainable Energy Development (POISED)

- ▶ Prepping and demonstrating sustainable renewable energy systems in small outer islands
- ▶ Investments include
  - ▶ 100% RE in 10 small islands with storage (too small for commercial RE)
  - ▶ Power systems rehabilitation of all small islands (prepping to accept RE to existing grid)
  - ▶ Implementation and support
- ▶ Expected outcome:
  - ▶ **Over US\$ 100 million investments** (on RE , EE and other energy related infrastructure)
  - ▶ At least 2 MW RE installations





# Technical Assistance

- ▶ Greater Male' Area Renewable Power System Integration
- ▶ Improved Access to quality data
- ▶ Creating enabling environment
- ▶ Human Capacity Building



# Expected Achievements of SREP

- ▶ 27 MW of RE installation
- ▶ 551 tons/day of desalinated water produced
- ▶ 22 million liters of diesel reduced per year
- ▶ 65 Gg of CO<sub>2</sub> reduced per year
- ▶ US \$ 22 million per year on fuel import
- ▶ US \$ 10 million reduced on fuel subsidy
- ▶ Capacity built
- ▶ Establishment of Maldives Green Fund

# Linkages: Adaptation and RE investments

- ▶ Increase energy security increase reliability of key community services
  - ▶ Energy services is key underlying factor in providing health services, water supply, communication etc
  - ▶ Indigenous production of energy reduces energy service black outs
- ▶ Reduced expenditure of fossil fuel import reduces economic vulnerability
  - ▶ Stronger the economy becomes, its easier and safer for private sector investments in various sectors like agriculture and fisheries
- ▶ Monetary savings could be used for Adaptation
  - ▶ The subsidy and other income through FIT can be used through Maldives Green Fund
  - ▶ Maldives Green Fund could provide much needed financial assistance to enhance adaptation activities in the country

Thank You!