

# **RENEWABLE SOURCES OF ENERGY SMALL ISLAND DEVELOPING STATES PERSPECTIVE**

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## **INTRODUCTION**

SIDS, with few exceptions, have significant renewable energy resources that provide a base for reducing dependence on high cost, environmentally damaging fossil fuels. For SIDS, the benefits of using renewable energy are many-fold.

- Clean, green, dynamic in age and marketing tool
- Preservation of natural and tourism resources
- Economic benefits, including reducing imports, thus saving scarce foreign exchange
- Creating employment and generating new income; and
- Providing cheaper and more reliable energy to users

## RENEWABLE ENERGY SOURCES IN SIDS

SIDS are an exceptional case, with very special characteristics from the energy dimension. Most islands have excellent renewable energy sources which are often enough to guarantee ample energy self-sufficiency. The Renewable Energy Sources in SIDS are:

- Solar
- Wind
- Micro-hydraulic
- Biomass
- Geothermal
- Ocean
- Photovoltaics

**By the end of the 20th Century, the average costs for KWh produced were:**

Type of Energy	Euro/KWh
Coal	3.70
Gas	4.00
Biomass	5.30
Wind	5.33
Geothermal	7.00
Small Scale Hydro	8.25
Photo voltaics	30.00

As can be observed, wind power has a prevailing position with regard to its large scale implementation and appears to be the most rational option. In fact, most islands have plenty of wind resources available.

## SOME SUCCESS STORIES IN SIDS

- **Vanuatu** converted all government vehicles to biofuel, coconut oil, since July 01, 2005. All the island Fuel Company Fleet of trucks, up to 5 ton crane trucks, are running on it
- **Fiji** is working in close collaboration with India for the production of fuel from both bagasse and sugar, with assistance from UNDP  
Coconut Methyl Ester (CME), a processed (esterified) product of coconut oil, with glycerine removed, is being used by the Fiji's Land Transport Authority with various mixtures of CME and diesel fuel

- **Marshall Islands** has developed an energy efficient lighting programme. 10,000 energy efficient bulbs have been installed at government buildings, schools and houses. Solar home system has been established on two of its outer islands by making use of solar photo voltaics
- **Caribbean Islands**  
The Geo-Caribes Project is aiming to tap energy from geothermal. Governments of St.Lucia, St. Kitts and Nevis, Grenada and Barbados have Sustainable Energy Plans included in their National Energy Policy

- **Kiribati:** Use of Solar energy for rural electrification
- **Seychelles:** Installation of PV and Solar Water heaters to maintain Curieuse Island as a Marine Park for Tourism industry and fishery breeding grounds and reserves

## WAY FORWARD

- Establishment of a Renewable Energy Centre
- Development of a Sustainable Energy Plan and its inclusion into National Energy Policies
- Keep abreast of Global Developments in Sustainable Energy Resources
- Mobilise resources to transform energy base from fossil fuels to a system based on renewables and energy efficient technologies

