



Country energy information Nauru

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SIXTH FRAMEWORK PROGRAMME PRIORITY 3

Underpinning the economic potential and cohesion of a larger and more integrated EU

SPECIFIC SUPPORT ACTION

Project Acronym: RECIPES

Project full title: Renewable Energy in emerging and developing countries: Current situation, market Potential and recommendations for a win-win-win for EU industry, the Environment and local Socio-economic development

Contract number: 513733

Start date of contract: 1st January 2005

Introduction

The information in this report was gathered from publicly available sources (the source list is available at www.energyrecipes.org), like surveys, statistical data from the internet and books and other publications. The information consists of:

1. indicators and indices;
2. descriptions of the relevant energy items/subjects /themes.

Due to differences in availability of data per country the level of detail of these reports will differ.

For all the 114 developing and emerging countries of the INCO list a report like this is available. (see also www.energyrecipes.org for the countries) Except for the following 15 countries, where more detailed reports are available.

Argentina	China	Cameroon
Brazil	India	Ghana
Colombia	Indonesia	Niger
Mexico	Pacific Islands	South-Africa
Peru	Thailand	Uganda

The RECIPES project

The RECIPES project aims to contribute to the implementation of renewable energy in emerging and developing countries. The RECIPES project is financed under the 6th Framework Programme for Research and Technological Development of the European Commission.

The main objective of the RECIPES project is to provide the European Commission and other stakeholders with pragmatic information and recommendations facilitating appropriate action to further the implementation of renewable energy in emerging and developing countries, taking into account:

- | The effects on the local socio-economic situation.
- | The competitive position of European renewable energy industry.
- | The impacts on the local and global environment.

Data collection on the situation and potential of renewable energy in emerging and developing countries is the core of the RECIPES project.

An identification of the RE market potential is carried out for 15 developing and emerging countries. Local experts gathered data for all of these countries. The results of these in-depth studies are extrapolated to 99 other developing and emerging countries for which data is gathered through desk research.

See the RECIPES website (www.energyrecipes.org) for relevant data collected and reports produced.

Environmental problems

Limited natural fresh water resources, roof storage tanks collect rainwater, but mostly dependent on a single, aging desalination plant; intensive phosphate mining during the past 90 years - mainly by a UK, Australia, and NZ consortium - has left the central 90% of Nauru a wasteland and threatens limited remaining land resources

Environment - international agreements

Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection

signed, but not ratified: none of the selected agreements

Energy situation

Diesel generators have been the traditional source of electrical energy for Nauru since the establishment of the mining activities. The Nauru Phosphate Corporation (NPC) has an installed capacity of 15 MW (derated to 11.1 MW) with approximately 43% of the energy generated by NPC being used by the mining operation. The whole population on Nauru has access to electricity, and there are a number of standalone generators that are used for standby purposes.⁴¹

Limited use is made of solar photovoltaic or solar hot-water systems, although with Nauru situated almost on the equator the climate and long hours of solar radiation lend themselves to this alternate form of renewable energy.⁴¹

All other forms of energy (petroleum products, LPG, etc.) are imported into Nauru.

Energy sector organisation

The Nauru Phosphate Corporation (NPC) is responsible for the bulk importation of all petroleum fuel and products to Nauru, and supplies all petroleum fuel for domestic use such as diesel oil (ADO), petrol, dualpurpose kerosene (DPK), lubricants, solvents and LPG. A number of small businesses individually also import lubricants, solvents and small amounts of LPG for which records were not readily available.⁴¹

Renewable energy potential

Indigenous energy resources in Nauru are limited solely to solar radiation and a small amount of biomass. However, as the electricity is supplied from diesel generation and has been abundantly available over the past 80 years, these other renewable energy sources have not been extensively exploited. Due to Nauru's limited biomass resources it is unlikely that this could be considered to be a sustainable energy resource for the future. Solar energy offers the best alternative, but considering the high usage of electrical appliances, i.e. air conditioners, stoves, etc., the practicalities of adopting a solar-replacement policy would need to be carefully evaluated from an economic point of view.⁴¹

Renewable energy

Solar photovoltaics have sparsely been used as an energy source on Nauru as the island is 100% electrified by grid-distributed power. However, the government still continues to consider the use of the sun and solar photovoltaics as an energy source, and originally indicated this at the 1995 South Pacific Forum Meeting.⁴¹

	Nauru	Unit
General		
Population (2005)	13048	
Country area	21	km ²
Total density of population (people/km ²)	621.000	capita/km ²
Growth of people % /year	1.830	%
Land use arable (%)	0.000	%
Land use perm crops (%)	0.000	%
GDP in ppp mostly \$ 2004 est	60	million
Income /capita \$ mostly 2004	5000	
Inflation rate (consumer prices) (%)	-3.600	%
Year of estimation	1993	
Oil consumption	1000.000	bbl/day
Year of estimation	2001	
Coal consumption (Million Short Tons)	0.000	millions short tonnes/year
Nuclear power production (Billion Kilowatthours) 2003	0.000	billion kWh/year
Hydro electricity capacity (2003)	0.000	million kilowatts

Renewable energy situation		
Geothermal, Solar, Wind, Wood and Waste Electricity Installed capacity (2003)	0.000	million kilowatts
RE energy electricity consumption (2003)	0.000	billion kWh/year
Total coal production (Million Short Tons)	0.000	millions short tonnes/year
Electricity consumption GWh (2003)	21.000	GWh