



Country energy information Togo

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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

Deforestation attributable to slash-and-burn agriculture and the use of wood for fuel; water pollution presents health hazards and hinders the fishing industry; air pollution increasing in urban areas

Environment - international agreements

Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Law of the Sea, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands
signed, but not ratified: none of the selected agreements

Energy situation

With no proven oil or natural gas reserves, Togo is forced to import all of its petroleum, which is the only fossil energy used in Togo. Electricity is generated mainly from hydropower and petroleum.

Combustibles like fuelwood are used for residential energy consumption, which is the main cause for deforestation. Togo does not utilize any type of new renewable energy source like geothermal energy or wind energy.¹³

Togo receives about four-fifths of its electricity in the form of hydroelectric power from the Akosombo Dam in Ghana. The transmission line was formally inaugurated in July 1975. There is also a hydroelectric station at Kpimé, near Kpalimé, built with Yugoslav assistance. The 65-MW Mono River hydroelectric plant, near Atakpamé, began operating in 1987. The project has an annual output of 150 million kWh, enough to meet 25% of the combined demand of Togo and the joint project's partner, Benin. A 15–20 MW hydroelectric plant has been proposed for Adjalarala, 75 km downstream on the Mono River.

Togo's installed capacity in 2001 was 34,000 kW (approximately 90% conventional thermal and 10% hydroelectric). Electrical output that year totaled 97 million kWh, of which 97.9% was from fossil fuels and 2.1% from hydropower.¹⁵

Energy sector organisation

No information is available on Togo's energy sector organization.

Renewable energy potential

Togo, just like its neighbour Ghana, has considerable wind potential, but is so far not

being exploited.⁵¹

Renewable energy

No information is available on Togo's RE policy.

	Togo	Unit
General		
Population (2005)	5681519	
Country area	56785	km ²
Total density of population (people/km ²)	100.000	capita/km ²
Growth of people % /year	2.170	%
Land use arable (%)	46.150	%
Land use perm crops (%)	2.210	%
Percentage of total people living in cities	34.500	%
HDI (2002)	0.495	
Social		
Illiteracy	60.900	%
Year of estimation	2003	
Corruption (CPI 2003) 0=high 10=low	0.000	
GDP in ppp mostly \$ 2004 est	8.68	billion
Economic		
Income /capita \$ mostly 2004	1600	
Variability of income/capita GINI index (2004)	0.000	
Population below poverty line	32.000	%
Year of estimation	1989	
Total External Debt in % GDP (2004 est.)	0.000	%
Inflation rate (consumer prices) (%)	1.000	%
Year of estimation	2004	
Growth of economy	3.000	%
Year of estimation	2004	
EDI energy development index	0.176	
Energy development		
Percentage of people connected to the grid (electricity)	17.000	%
Traditional fuel consumption (% of total energy requirements 2002) . Estimated consumption of fuel wood, charcoal, bagasse (sugar cane waste) and animal and vegetable wastes.	88.600	
Oil consumption	10000.000	bbl/day
Fossil fuel consumption		
Year of estimation	2001	
Coal consumption (Million Short Tons)	0.000	millions short tonnes/year
Natural gas consumption, year 2001 if not mentioned others		
Nuclear power production (Billion Kilowatthours) 2003	0.000	billion kWh/year
Hydro electricity capacity (2003)	0.003	million kilowatts
Renewable energy situation		
Geothermal, Solar, Wind, Wood and Waste Electricity Installed capacity (2003)	0.000	million kilowatts
RE biomass production of primary energy from combustible		

Renewables and Wast TJ/Year 2002	45271.000	
RE energy electricity consumption (2003)	0.000	billion kWh/year
Total Primary Energy Supply 2000	17.450	billion kWh/year
Share of total renewables in % of TPES 2000	67.700	%
Share of renewables excluding combustible renewables and waste in % of TPES 2000	0.000	%
TPES 2003	30.200	billion kWh/year
Share of Renewables in TPES % (2003)	72.100	%
Hydro (2003)	1.100	%
Geothermal, Solar, Wind, Tide (2003)	0.000	%
Combustible Renewables and Waste (2003)	98.900	%
Total kWh per capita	2849.000	

Energy consumption for various sectors

Industry	14.000	%
Transportation	15.000	%
Agriculture	0.000	%
Commercial and public services	1.000	%
Residential	70.000	%
Other purposes	0.000	%
Total oil production	0.000	bbl/day

Energy production

Total coal production (Million Short Tons)	0.000	millions short tonnes/year
Total natural gas production		
Total Electricity Production GWh	53.000	GWh

Electricity

Electricity production from coal %	0.000	%
Electricity production from oil %	94.000	%
Electricity production from gas %	0.000	%
Electricity production from biomass %	0.000	%
Electricity production from waste %	0.000	%
Electricity production from nuclear %	0.000	%
Electricity production from hydro %	6.000	%
Electricity production from geothermal %	0.000	%
Electricity production from solar thermal and PV %	0.000	%
Electricity production from other sources %	0.000	%
Electricity consumption GWh (2003)	654.000	GWh
Total final electricity consumption GWh (2002)	542.000	GWh
Electricity used by Industry % (2002)	36.000	%
Electricity used by Transport % (2002)	0.000	%
Electricity used by Agriculture % (2002)	0.000	%
Electricity used by Commerce and Public Services % (2002)	18.000	%
Electricity used by Residential % (2002)	46.000	%
Electricity used by Other Non-Specified % (2002)	0.000	%
Electricity used by Non-Energy Use % (2002)	0.000	%