

Country energy information Burkina-Faso

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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 detailled reports are available.

| Argentina | China | Cameroon |
|-----------|-----------|----------|
| Brazil | India | Ghana |
| Colombia | Indonesia | Niger |
| Mexico | Pacific | South- |
| | Islands | 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

Recent droughts and desertification severely affecting agricultural activities, population distribution, and the economy; overgrazing; soil degradation; deforestation

Environment - international agreements

Party to: Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Life Conservation, Ozone Layer Protection, Wetlands *signed, but not ratified:* none of the selected agreements

Energy situation

Growing demands for power have prompted Burkina Faso to seek <u>import electricity</u> from neighboring Cote d\'Ivoire. Burkina Faso employs <u>diesel generators</u> to produce electricity, but high production costs attributed to fluctuating oil prices, forcing the government to begin interconnecting Burkina Faso\'s grid with that of neighboring countries like Ghana and Cote d\'Ivoire to import additional electricity requirements.²

Burkina Faso has <u>no national transmission network</u> and the <u>distribution network</u> is limited. Only 7% of the country has <u>access to electricity</u> and electricity is expensive. There are plans to extend electrification, both in terms of generating facilities (particularly <u>hydro projects</u>) and extending distribution systems to additional urban areas.¹⁴

About 45 per cent of the economic <u>hydropower</u> potential has been developed. In 1997, 30MW of hydro capacity was in operation, of a total capacity of 109.6 MW. The average annual generation from hydroelectricity in 1997 was 95 GWh/year. Two small-hydro plants are in operation in Burkina with a total capacity of 2MW. No additional small-hydro plant projects were planned in 1997 except the 2.5MW Samandeni project.¹⁴

Energy sector organisation

Societe Nationale Burkinabe d'Electricite, known as Sonabel, is Burkina Faso's <u>sole electricity supply utility.</u>¹⁴

Renewable energy potential

The gross theoretical <u>hydro potential</u> of Burkina Faso has been evaluated at 150 MW (1316 GWh/year), and both the technically and economically feasible potential are now estimated to be 75 MW (about 215 GWh/year).¹⁴

Renewable energy

No information is available on Burkina Faso's Renewable Energy Policy.

| | Burkina-Faso | Unit |
|---|--------------|-------------------------------|
| General | | |
| Population (2005) | 13925313 | |
| Country area | 267950 | km² |
| Total density of population (people/km2) | 52.000 | capita/km ² |
| Growth of people % /year | 2.530 | % |
| Land use arable (%) | 14.430 | % |
| Land use perm crops (%) | 0.190 | % |
| Percentage of total people living in cities | 17.400 | % |
| HDI (2002) | 0.302 | |
| Social | | |
| | 26 600 | 0/ |
| | 20.000 | 70 |
| Corruption (CPI 2003) 0-high 10-low | 0.000 | |
| GDP in nnn mostly \$ 2004 est | 15 74 | hillion |
| | 13.74 | Dimort |
| Economic | | |
| Income /capita \$ mostly 2004 | 1200 | |
| Variability of income/capita GINI index (2004) | 48.200 | |
| Population below poverty line | 45.000 | % |
| Year of estimation | 2003 | |
| Total External Debt in % GDP (2004 est.) | 0.000 | % |
| Inflation rate (consumer prices) (%) | 2.400 | % |
| Year of estimation | 2004 | |
| Growth of economy | 4.800 | % |
| Year of estimation | 2004 | |
| EDI energy development index | 0.000 | |
| Energy development | | |
| Percentage of people connected to the grid (electricity) | 10.000 | % |
| Traditional fuel consumption (% of total energy requirements 2002). Estimated consumption of fuel wood, charcoal, bagasse (sugar cane waste) and animal and vegetable wastes. | 91.700 | |
| Oil consumption | 8000.000 | 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) | 0.032 | 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 | 0.000 | |
| RE energy electricity consumption (2003) | 0.000 | billion kWh/year |
| Total Primary Energy Supply 2000 | 0.000 | billion kWh/year |
| Share of total renewables in % of TPES 2000 | 0.000 | % |
| Share of renewables excluding combustible renewables and waste in % of TPES 2000 | 0.000 | % |
| TPES 2003 | 0.000 | billion kWh/year |
| Share of Renewables in TPES % (2003) | 0.000 | % |
| Hydro (2003) | 0.000 | % |
| Geothermal, Solar, Wind, Tide (2003) | 0.000 | % |
| Combustible Renewables and Waste (2003) | 0.000 | % |
| Total kWh per capita | 0.000 | |
| Energy consumption for various sectors | | |
| Industry | 0.000 | % |
| Transportation | 0.000 | % |
| Agriculture | 0.000 | % |

| Agriculture | 0.000 | % |
|--------------------------------|-------|---------|
| Commercial and public services | 0.000 | % |
| Residential | 0.000 | % |
| 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 | 0.000 | GWh |

Electricity

| Electricity production from coal % | 0.000 | % |
|---|---------|-----|
| Electricity production from oil % | 0.000 | % |
| 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 % | 0.000 | % |
| 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) | 349.000 | GWh |
| Total final electricity consumption GWh (2002) | 0.000 | GWh |
| Electricity used by Industry % (2002) | 0.000 | % |
| Electricity used by Transport % (2002) | 0.000 | % |
| Electricity used by Agriculture % (2002) | 0.000 | % |
| Electricity used by Commerce and Public Services % (2002) | 0.000 | % |
| Electricity used by Residential % (2002) | 0.000 | % |
| Electricity used by Other Non-Specified % (2002) | 0.000 | % |
| Electricity used by Non-Energy Use % (2002) | 0.000 | % |
| | | |