FDE2002 SPECIAL REPORTS - Water and Energy Reports on South Pacific Islands -

Independent State of Papua New Guinea

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1. General Information

Population ^{*1}	5,049,055 (July 2001 est.)		
Population density [/km ²] ^{*1}	10.91	10.91	
Languages ^{*1}	English, pidgin English, Motu		
Ethnic Groups ^{*1}	Roman Catholic	22%	
	Lutheran	16%	
	Indigenous beliefs	34%	
	Anglican	5%	
	Evangelical Alliance	4%	
	Seventh-Day Adventist	1%	
	Other	18%	
Climate ^{*1}	Tropical; northwest monsoon (December to March)		
	southeast monsoon (May to October); slight		
	seasonal temperature variation		
Land Area [km ²] ^{*1}	462,840	462,840	

Comments for General Information^{*1}

The eastern half of the island of New Guinea - second largest in the world - was divided between Germany (north) and the UK (south) in 1885. The latter area was transferred to Australia in 1902, which occupied the northern portion during World War I and continued to administer the combined areas until independence in 1975. A nine-year secessionist revolt on the island of Bougainville ended in 1997, after claiming some 20,000 lives.

2. Economy

GDP [US\$] ^{*1}	12.2 billion (purchasing power parity, 2000)
GDP-per capita [US\$] ^{*1}	2,500 (purchasing power parity, 2000)
Imports [US\$] ^{*1}	1 billion (2000)

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	Machinery and transport equip	Machinery and transport equipment, manufactured goods, food, fuels, chemicals		
	fuels, chemicals			
Exports [US\$] ^{*1}	2.1 billion (2000)			
	Oil, gold, copper ore, logs, palm oil, coffee, cocoa, crayfish, prawns			
Composition of Sector ^{*1}	Agriculture & Fishery [%]	30 (1999)		
(Ratio to GDP)	Industry [%]	35 (1999)		
	Service [%]	35 (1999)		

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Comments for Economy^{*1}

Papua New Guinea is richly endowed with natural resources, but exploitation has been hampered by the rugged terrain and the high cost of developing infrastructure. Agriculture provides a subsistence livelihood for 85% of the population. Mineral deposits, including oil, copper, and gold, account for 72% of export earnings.

3. Energy

<u>y</u>	Electricity production [kWh] ^{*1}		1.82 billion (1999)
Electricity	Electricity consumption [kWh] ^{*1}		1.693 billion (1999)
sctr	Electricity		Fossil fuel: 54.95%; hydro: 45.05%;
Ele	- production by source ^{*1}		nuclear: 0%; other: 0% (1999)
	Production ^{*2}	Oil	NA
		Coal	0
s		Gas	0
y Irce	Consumption ^{*2}	Oil	16 (thousand barrels per day)
Energy Resources		Coal	0
En		Gas	4 (billion cubic feet)

Comments for Energy *1,*6

In Papua New Guinea, the heavy reliance on the imported fossil fuel is the main energy issue. To be independent on the fossil fuels and to reduce the cost of electricity supply for the outer islands and isolated regions, the small scale and distributed power supply system based on the renewable energy are the one of the countermeasure. In terms with the environmental protection and challenge to the global warming, the installation of the renewable energy has to be taken into consideration for the sustainable development for the next generation.

4. Water

Precipitation ^{*3}		3,141.7 mm	
Internal renewable Water Resources ^{*3}		801 cubic kilometers	
Population with Access to Improved Water Supply ^{*3}		42%	
Total		Industry [%]	22
Water Withdrawal ^{*3}	0.1 km^3	Domestic [%]	29
		Agriculture [%]	49

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Comments for Water^(*4)

1.Water quality

- > Health problems occur frequently because water supply pipes are not regularly replaced.
- > General water supply is not safe for drinking.
- 2.Water quantity
- Amount of water is not enough to adequately supply all residents during the dry season. Government has not enough reserve tanks.
- 3. Inadequate Government policy
- Water Authority is only responsible for the main supply system. If there are problems with water pipes, it is residential responsibility.
- There is no policy comprehensively covering water districts. As a result, there are a lot of problems with landowners.

5. Environment and Pollution

CO ₂ Emission ^{*5}	Total metric tons	2,407
	Metric tons per capita	0.55

Comments for Environment^{*1}

- Rain forest is subject to deforestation as a result of growing commercial demand for tropical timber. Pollution from mining field is acceralating the deforestation.
- Severe drought.
- > Pollution of seawater by sewage and oil leakage.

References

- *1 http://www.cia.gov/cia/publications/factbook
- *2 http://www.eia.doe.gov
- *3 http://geodata.grid.unep.ch
- *4 Issue raised by NGO's working in the water sector in the pacific
- *5 http://cdiac.esd.ornl.gov
- *6 Energy and Sustainable Development Pacific Regional Submission to the 9th Session of the Commission on Sustainable Development (CSD9)-

Information

http://www.pngonline.gov.pg/