

Present Condition And Outlook Of Energy Resource Industry In Bangladesh

Presented by :

MD. Kazi Nazir Hossain

Deputy Secretary

Energy & Mineral Resources Division

BANGLADESH AND REGION

Updated by ReliefWeb: 8.6.96



The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations or ReliefWeb. These maps may be freely distributed. If more current information is available, please update the maps and return them to ReliefWeb for posting.

Bangladesh : A small dot on the world map

But it is the poet's "Golden Bengal". A small green spot beside the Bay of Bengal of world map.

Bangladesh emerged as an independent and sovereign country on 16 December 1971.

Boundaries :

West Bengal, India on the west; West Bengal, Assam and Meghalaya of India on the north; Assam, Tripura and Mizoram of India together with Myanmar on the east and the Bay of Bengal on the south.

Situated in the north eastern part of South Asia, covering a total area of 147,570 sq km and its capital city is Dhaka.

Climate : Sub-tropical Monsoon. six season in a year, best time for the tourists is from October–March.

Temperature : 18° C in cold season and 38° C in summer.

Tourist Point : Cox' s Bazar, Rangamati, Chittagong, Sylhet, Kuakata, Sundarban.

Archaeological Sites : Paharpur, Mahasthangarh, Mainamati.

Population : 164.4 million. Density 1,099.3 persons/sq. km.

currency : The unit is Taka, made up of 100 paisa.
1 US \$= BDT 70 (approx.).
1.00 BDT= 1.10871 JPY

Language : Bangla, but English is widely spoken and understood.

Time : GMT + 6 hours.





Sundarban : The world's largest mangrove forest and home of the Royal Bengal Tiger.



Srimangal: most of the tea gardens are located here. There is a Rain Forest



Cox's Bazar Sea Beach



Cox's Bazar : The longest Sea Beach, 120 km (unbroken) in the world. Miles of golden sands, rare conch shells etc. are found. Cox's Bazar is called the tourist capital in Bangladesh.



St. Martin Island: It is a small Island. The area is 8 sq. km. It is only the place in Bangladesh where you can observe living



Kuakata: One of the most unique beaches in the world having vast coast line from where you can enjoy both the sunrise and sunset.



Paharpur: It is the single largest Buddhist monastery in the world. It was build between 7th to 8th century AD. It covers an area of about 27 acres, and consists of many structures enclosed by a continuous line of walling.



National Park : Situated in Rajendrapur, Gazipur, 40 km north of Dhaka. This is a vast 1600 acres national recreational forest. It's an ideal forest for those who love nature.



National Memorial : It is situated at Savar near Dhaka city. It was built to commemorate the martyrs of the war of

Introduction

Primary Energy of Bangladesh

Primary commercial energy resources in Bangladesh include

- i) natural gas
- ii) oil
- iii) condensates from gas
- iv) coal, peat
- v) bio-mass and renewable energy

Biomass plays an important role in the country's energy consumption particularly in the rural area.

Introduction

Contd.

Commercial Energy of Bangladesh

Commercial resources of the country are well-developed natural gas sector and undeveloped coal sector. Demand of energy increases at the rate of 7% per annum in the country. To meet this increasing demand of energy a long term strategic plan is under implementation for systematic exploration and proper appraisal both in the offshore and onshore areas in Bangladesh. Bangladesh has good potentialities of hydrocarbon in the offshore and deep sea areas.

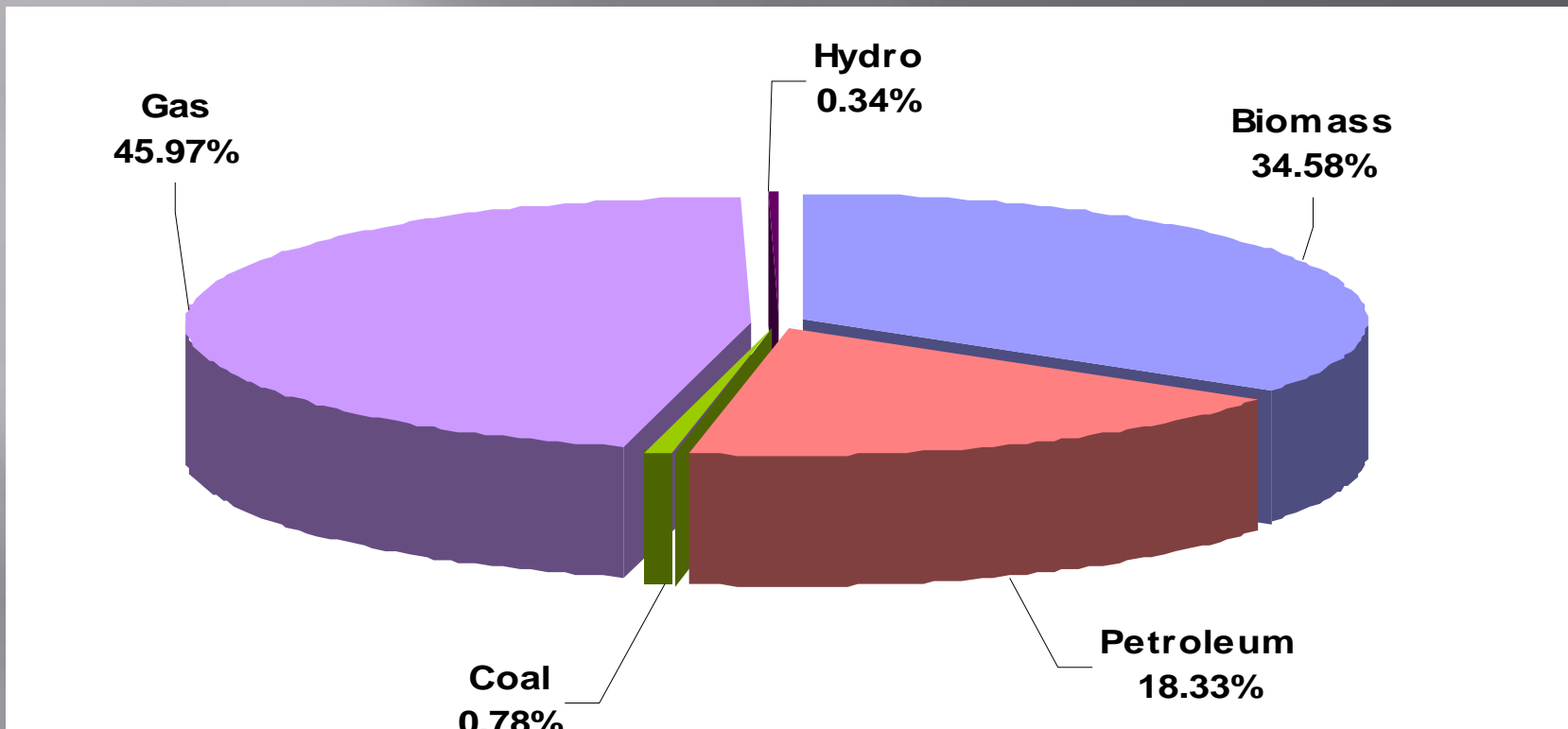
Bangladesh has got the potentialities of solar energy (solar voltaic cell). Government and non-government organization are working on it. Government is also working for installation of nuclear power plant in the country to meet the increasing energy demand.

Policy

- To provide energy for sustainable economic growth so that the economic development activities of different sectors are not constrained due to shortage of energy.
- To meet the energy needs of different zones of the country and socio-economic groups.
- To ensure optimum development of all the indigenous energy sources.
- To ensure sustainable operation of the energy utilities.
- To ensure rational use of total energy sources.
- To ensure environmentally sound sustainable energy development programmes causing minimum damage to environment.
- To encourage public and private sector participation in the development and management of the energy sector.

Share of Primary Energy

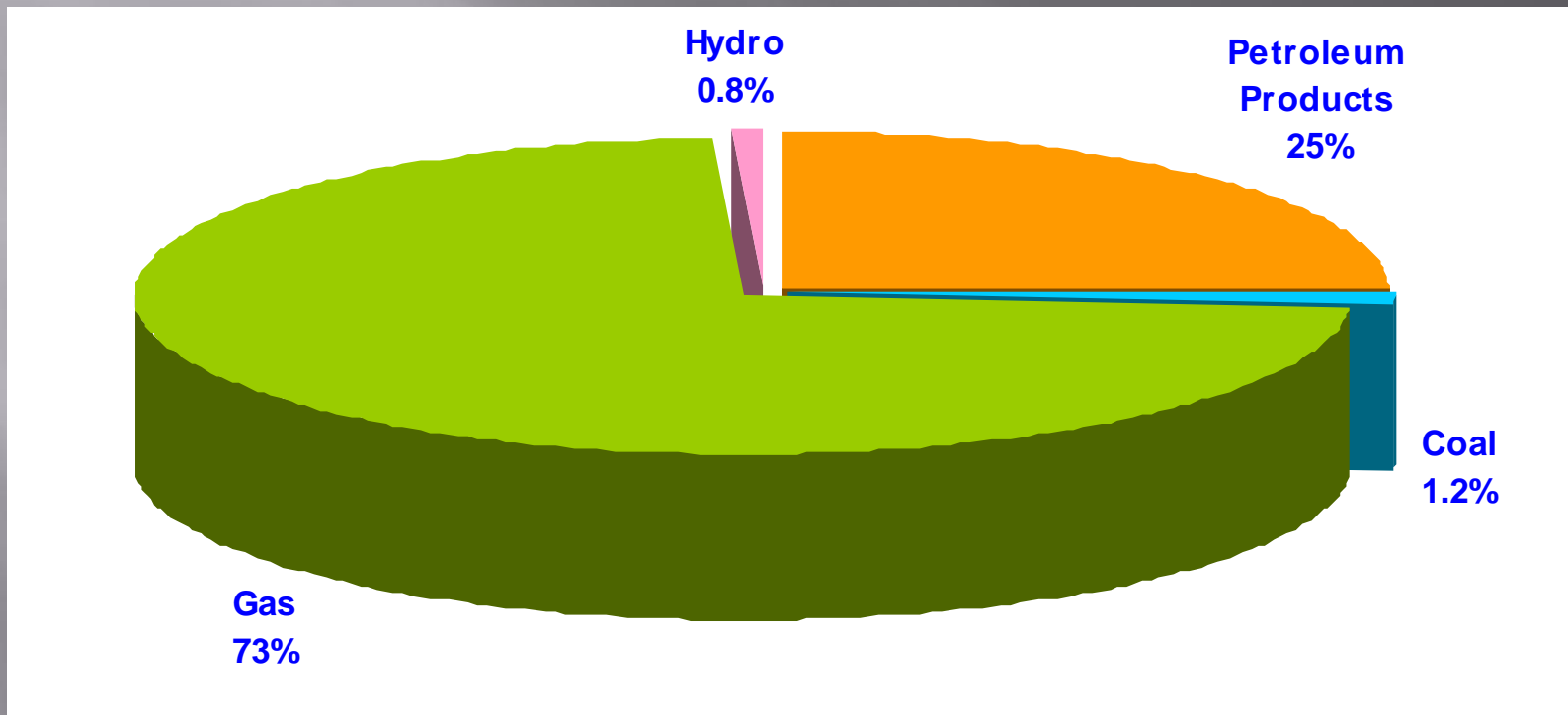
Quantity in MTOE



MTOE: Million tonne of Oil Equivalent

Share of Commercial Energy

Quantity in MTOE



Energy

Natural Gas :

- ▣ In Bangladesh natural gas is one of the most important sources of energy that accounts for 73% of the commercial energy of the country. Till now 23 gas fields have been discovered in the country. As of December 2010 the estimated proven recoverable reserve was 15.32 TCF, total 9.43 TCF gas has been already produced leaving only 5.89 TCF of recoverable category (P1), 5.31 TCF of probable (P2) and 7.01 TCF under possible (P3) category.
- ▣ 79 wells in 17 gas fields are in production. Average production of natural gas was about 2000 MMCFD.
- ▣ During present government's tenure 284 MMCFD gas production capacity has been increased.
- ▣ Daily gas demand is 2500 MMCFD having shortages of about 500 MMCFD.

Energy

Contd.

CNG:

- Government has been encouraging private sector participation for installation CNG re-fuelling stations. To facilitate CNG use, about 500 CNG re-fuelling stations and 146 conversion workshops have already been set-up in the country and 1,88,034 CNG vehicles run in the country as of February 2010.
- CNG activities is keeping positive role in economy of the country. Average CNG usage (approx.) is 110 MMCFD.

Energy

Contd.

Petroleum:

Bangladesh imports about 1.2 million metric tons of crude oil along with 2.6 million metric tons (approx) of refined petroleum products per annum. Locally liquid fuels in terms of condensate and other liquid products are also extracted from different gas fields. Major consumer of liquid fuel is transport followed by agriculture, industry and commercial that is mostly met by imported liquid fuel.

Energy

Contd.

LPG:

Those hydrocarbons which are gaseous at normal atmospheric pressure, and condensed to the liquid state at normal temperature, stored and transported as liquids under pressure about 200 psi. LPG evaporates to produce about 250 times volume of gas. LPG is mostly made up of propane. It is mainly used for cooking and also in vehicles as fuel.

There are two main sources from which LP gases are produced

(A) Wet Natural Gas (B) Refinery Operations (Crude Oil).

- i) 22500 MTons of LPG produces from Refinery and Gas Condensate.
- ii) Bangladesh import in private sector 73000 MTons of LPG yearly
- iii) Present demand of LPG is around 3 Million Tons.

Energy

Contd.

Coal:

In Bangladesh, five coal deposits namely Barapukuria, Phulbari, Dighipara (in Dinajpur District), Khalashpir (in Rangpur District) and Jamalgonj (in Joypurhat District) were discovered. Total in-situ proven+probable reserves is 3300 Million Tones. So far, only one coal field i.e. Barapukuria has been developed. Commercial production of Barapukuria coal mine commenced from 2005 with the targeted capacity of one million metric tons per year and present average production 0.6-0.8 Million Tones per year.

Renewable Energy:

Hydro Power:

There is one large hydro facility in the country at Kaptai, installed in the 1960s and producing 1000GWh per year. More assessments for hydropower have to be carried out to identify handful possible sites.

Nuclear Energy:

In Bangladesh steps are being taken to setup nuclear plants to meet up the emerging demand of energy in future.

Renewable Energy:

Contd.

Biogas:

Biogas may be the most promising renewable energy resource for Bangladesh. Presently there are ten thousands of households and village-level biogas plants in place throughout the country.

Solar photovoltaic:

Solar photovoltaic are in use throughout the country with over 2,00,000 household-level installations comprising around 12 MW total capacity. Scaling-up of solar PV systems has been supported by the World Bank and implemented through both the Rural Electrification Board (REB) and the Infrastructure Development Company (IDCOL).

Power Supply Position

In Bangladesh total Installed Electricity Generation Capacity 5,400 MW, De-Rated Electricity Generation Capacity 4,800 MW and Generation Capacity around 4,000 MW. Total around 43% people have got access to electricity. Per capita consumption of electricity is 165 kWh.

Promote Renewable Energy

Government has given emphasis on expansion on Renewable Energy Technology. Through Renewable Energy power shortage can be reduce to some extent and can supply Energy to remote and inaccessible areas. This will help to establish small and cottage industries and to educate and raise awareness on important issues to the people of remote and inaccessible areas. It will have positive impact on poverty reduction.

Energy Cooperation for Asia and Middle East

Bangladesh imports 3.8 million Tons of Crude and Refined Oil every year and this volume is increasing every year. Middle East is a Oil rich country. They export Energy all over the World. So both Bangladesh and Middle East may be benefited through cooperation on Energy.

Thanks

Contact : report@tky.ieej.or.jp