

**Welcome to**  
**Country Report Presentation On**  
**Energy Scenario**  
**of**  
**Bangladesh**

**8 May 2012**

# Bangladesh: Country profile

- Bangladesh is located in the north-eastern part of South Asia.
- The land area of the country is 147,570 square kilometres with the greater part of the country comprising of flat river basins and deltas.
- Due to this geographic formation, Bangladesh has been vulnerable to natural calamities such as floods and cyclones.
- In 2010, population of Bangladesh was about 150 million.
- Bangladeshi economy is heavily reliant on service sector, agriculture and light industries.
- An average economic growth rate of about 5.5% was maintained during the last decade.
- However, the high level of population growth had put continuous pressure on the country's growing economy.

# Energy Resources and Use

- The energy sector is governed by a hierarchy of state organizations and the Ministry of Power, Energy and Mineral Resources (MOPEMR) functions at the top of this governing structure.
- Natural gas in Bangladesh was first discovered in 1957.
- According to the latest estimates, Bangladesh has about 3,300 million tons of coal resources out of which 880 million tons are proven reserves.
- Though smaller in quantity compared to gas and coal reserves, oil deposits (of about 40 million barrels) also have been discovered in Bangladesh.
- Due to the natural flat terrain, the hydroelectric potential is relatively small and is estimated to be around 330 MW, out of which 230 MW have already been developed.

# Energy Resources and Use

- Apart from the use of these indigenous energy resources, liquid petroleum fuels are imported, mainly for the transportation sector.
- To achieve Millennium Development Goals (MDGs) and to alleviate poverty in line with Vision 2021, Bangladesh has to meet increasing energy demand.
- In order to ensure energy security as well as to meet the increasing energy demand, the primary energy source of the country especially gas, coal and other energy resources have been taken into consideration.
- To achieve this goal mid-term and long-term plan has been undertaken for exploration, development and production of domestic primary fuel such as gas and coal.

# Present status of Energy Sector

- Known commercial energy resources in Bangladesh include indigenous natural gas, coal, imported oil and hydro-electricity.
- Biomass accounts for about 38% of the primary energy and the rest 62% is being met by commercial energy.
- Natural gas accounts for about 75% of the commercial energy.
- Imported oil accounts for the lion's share of the rest.
- Average increase of energy consumption is about 7% per annum.
- Per capita consumption of energy in Bangladesh is on an average 160 kgoe (Kilogram Oil Equivalent) and per capita generation of electricity is 250 kWh, which is lower than those of South Asian neighboring countries.

# Natural Gas

- Presently, 79 wells in 18 gas fields are in production.
- A total of 708.92 billion cubic feet (BCF) gas was produced in the fiscal year 2010-2011.
- The existing gas source is mainly used in electricity, fertilizer, industry, transport and household.
- Followings are the data related to gas production:
  - *Total no. of gas fields* : 24
  - *Total recoverable reserve (proven and probable)* : 20.605 Trillion Cubic Feet (TCF)
  - *Total gas consumption up to June 2011* : 9.788 TCF.
  - *Total remaining reserve (proven and probable)* : 10.817 TCF
  - *Daily gas production* : 2000 Million Cubic Feet (MMCF).
  - *Daily demand of gas* : 2500+ MMCF
  - *Daily shortage of gas supply* : 500+ MMCF

# Natural Gas

- In order to meet the increasing energy demand, it will be possible to supply 1920 Million Cubic Feet gas per day to the national grid produced by the National and International Oil Companies including import of 500 Million Cubic Feet gas per day in the form of LNG by June 2013 under mid-term plan.
- Besides, it will be possible to supply 880 Million Cubic Feet more gas per day to the national gas grid at the end of December 2015 under Long-term plan.
- After implementation of mid-term and long-term plan, it will be possible to supply additional 2800 Million Cubic Feet gas per day to the national gas grid with presently supplied 2000 Million Cubic Feet gas per day.

# Demand and Supply Situation

- Only 710 BCF (Billion Cubic Feet) gas is being supplied against the average annual demand of 912 BCF.
- As a result, there exists a shortage of 202 BCF of gas annually.
- According to the projections ,in 2014-15, total annual demand for gas will stand at 1335.0 BCF.
- If the present supply of 2.0 BCF per day remains unchanged then daily shortage may stand at 1.66 BCF on the basis of the projected demand.
- Hence, it is not possible to meet this shortage with the existing reserves.
- If the reserve capacity does not increase according to the estimation of the Gas Sector Master Plan, then, there would be huge difference between demand and supply by 2015.



## Sector-specific Projected Demand for Gas during the Sixth 5Y Plan

Sector	2010-11	2011-12	2012-13	2013-14	2014-15
Power	300.5	324.5	350.5	378.5	415.8
Captive Power	142.6	164	188.6	216.9	238.6
Fertilizer	94	94	94	94	94
Industry	160.7	184.8	214.4	246.5	271.1
Household	99.5	111.4	124.8	139.8	153.8
CNG	44.7	51.4	56.5	113	124.3
Others	30.8	31.9	32.7	33.7	37.4
<b>Total</b>	<b>872.8</b>	<b>962</b>	<b>1061.5</b>	<b>1222.4</b>	<b>1335</b>

# Exploration Activities and its result

- National Company BAPEX has drilled an exploratory well in Sundalpur and Work over has been completed in a well of Semutang Gas Field.
- Besides, 08 new structures named Kapasia, Rupganj, Srikail, Mobarakpur, Bajitpur, Madon, 'Sunetra' & Khaliyajuri have been identified.
- A new modern drilling rig and a work over rig have also been procured for BAPEX and it is under process of procuring one more drilling rig.
- Besides, modern equipments of 3D Seismic Survey have been procured and for the first time, BAPEX conducted 3D Seismic Survey.
- As a success of this 3D Seismic Survey, BAPEX has identified additional 1 Trillion Cubic Feet gas in the Rashidpur gas field.

# Present Status of PSC activities of Natural Gas Sector

- Exploration activities have been strengthened to explore and develop new gas fields.
- Under the current Production Sharing Contracts (PSCs), four International Oil Companies (IOCs) are working in the country.

**TABLE: BLOCK WISE PSC OPERATION**

Sl No.	Block No.	Operator	Present Status
1	7	Chevron	Exploration
2	9	Tullow	Production
3	12	Chevron	Production
4	13 & 14	Chevron	Production
5	SS-16	Santos	Production
6	DS-08-10&11	ConocoPhillips	Initial Exploration (on 16 June 2011)

# Gas Transmission and Distribution

- In order to expand gas supply network as well as efficient marketing, two gas distribution companies have been created-
  - ◆ Sundarban Gas Company Limited in south-western region of the country
  - ◆ Karnaphuli Gas Company Limited in Chittagong region of the country .
- To supply gas to the western and south-western area of the country through Construction of 356 km gas transmission pipeline.
- Construction under implementation-
  - ◆ 30” dia 61 km Ashuganj-Bakhrabad Gas Transmission Loop Line
  - ◆ Installation of 02 compressors in Ashuganj & Elenga
  - ◆ Increase in gas production of 120 Million Cubic Feet from Titas gas field,
  - ◆ Construction of distribution pipeline of 2”-20” dia,
  - ◆ 845 km in the south-western zone and
  - ◆ Construction of 30” dia 60 km Bakhrabad- Siddhirganj gas transmission pipeline.
- Besides, construction of 36” dia 137 km Bibiyana-Dhanua gas transmission pipeline is under consideration.

# Coal

- Coal resources of Bangladesh can be alternative source of fuel to natural gas.
- These coals can conveniently serve the energy needs of Bangladesh for 50 years.
- Coal of Bangladesh is considered to be high quality in terms of its high level of heat generation capacity as well as low sulphur content.
- Commercial production of Barapukuria Coal Mine commenced from 10 September 2005 using underground mining method with the targeted capacity of one million metric ton per year.
- Almost 65% of the production is being used by 250 MW coal fired power station of Power Development Board of Bangladesh near Barapukuria coal mine.
- Remaining 35% coal is being used in brick fields and other domestic purposes which have an impact of reducing deforestation.

# Estimated coal resources of Bangladesh

Location/ Field	Year of Discovery	Drilled Well	Depth (Meter)	Estimated coal resources (Million Tonnes)	Total in-situ reserves (Million Tonnes)	Proved in-situ reserves (Million Tonnes)	Remarks
Barapukuria, Dinajpur	1985-87	31	118-509	390	390	303***	Only developed coal field. Operated by Barapukuria coal mining company ltd. During 2008 produced about 0.7million tonnes of coal.
Khalashpir, Rangpur	1989-90	14	257-483	685	685	143*	Exploration licence was awarded to a joint venture company of Bangladesh and China. They have submitted a feasibility report and which is under review of GOB.
Phulbari ,Di najpur	1997	108	150-240	572	572	288**	Discovered by BHP. Later exploration license transferred to Asia Energy. Submitted feasibility study report to BMD/ GOB. Awaiting decision to go ahead.

# Estimated coal resources of Bangladesh

Location/ Field	Year of Discovery	Drilled Well	Depth (Meter)	Estimated coal resources (Million Tonnes)	Total in-situ reserves (Million Tonnes)	Proved in-situ reserves (Million Tonnes)	Remarks
Jamalganj, Joypurhat	1962	10	640-1158	1053	-	-	Due to its greater depth commercial coal extraction may not be possible at this stage. May be good candidate for Coal Bed Methane Exploration.
Dighipara, Dinajpur	1994-95	5	328-407	600	600	150*	Exploration license has been awarded to Petrobangla and it has submitted a joint venture exploration plan to GOB for approval. No approval has yet been accorded.
Total				3300	2247	884	

Source: \*GSB, \*\* AEC , \*\*\* Petrobangla (As of December, 2007)

# Peat

- The peat deposits of Bangladesh are located in the low lying areas of the alluvial plain which are generally submerged under water for a large period each year.
- It has a carbon content of 50-60% and has a calorific value between 5500 Btu/lb and 7000 Btu/lb.
- The peat occurs at the surface or at shallow depths below the surface.
- The total peat reserve (dry peat) discovered in Bangladesh is 146.36 million ton.
- Peat can be conveniently used in the form of briquette, ovoid and compressed tablets as an alternative fuel to household work, in brick and lime industries and in small capacity thermal power plant (10 MW) in rural areas.



# Compressed Natural Gas (CNG)

- The use of CNG vehicles was introduced in 1997
  - ◆ to reduce the dependency on imported fuel significantly,
  - ◆ to pull down environment pollution and
  - ◆ to save foreign currency,.
- About 6% of total natural gas was used as Compressed Natural Gas (CNG) in FY 2010-2011.
- For convenience of CNG usage in vehicle, 546 CNG filling stations and 178 CNG conversion workshops are in operations by the public and private entrepreneurs.
- In FY 2001-2002, the number of CNG run vehicles were 6734 and the number has reached to 1,97,493 in FY 2010-2011.
- These CNG Stations are consuming approximately 101 MMCM gas (monthly) which is equivalent to more than 11 (eleven) crore litres.

# Liquefied Petroleum Gas (LPG) and Condensate

- A total of 80,000MT LPG is being supplied per year out of which-
  - ◆ 20,000 MT is being produced in the government sector
  - ◆ 60,000 MT in the private sector from the imported bulk LPG.
- With a view to reducing the import of fuel an LPG plant was installed at Kailashtila in Sylhet in the year 1998.
- In November, 2007 another NGL/Condensate fractionation plant was commissioned at the same premises.
- Both the plants are producing LPG and Motor Spirit (Petrol).
- At present, 23 MT LPG, 53.5 MT MS and 12.3MT HSD are being produced per day.
- A bottling plant of 100,000 Metric Ton will be set up in the public level.
- Besides, initiative has been taken to set up one more LPG bottling plant of 100,000 Metric ton under PPP.
- Installation of these two LPG bottling plants will meet most of the demand of LP gas in the country.
- Taxes have been reduced on different spare parts of LPG Bottle.

# Petroleum Product

- Bangladesh imports liquid fuel-
  - ◆ In terms of crude oil about 1.2 million metric Tons (approx) per annum
  - ◆ refined petroleum products about 2.6 million metric Tons (approx) per annum.
- Total estimated demand of Petroleum Oil for 2011-2012 financial year is 68.80 lac metric ton of which diesel is about 38.50 lac metric ton.
- Activities have been taken for increasing storage capacity including infrastructure development to supply Diesel/Furnace oil to the proposed power plants.
- The lone refinery, Eastern Refinery Limited (ERL), a company of Bangladesh Petroleum Corporation (BPC), is capable of processing 1.2 million metric tons of crude oil per year.
- Sector- wise use of petroleum products are-Power 9%, Industry 4%, Transportation 36%, Domestic 16% and agriculture 20%.

# Petroleum Product

- Total demand of refined oil in the country is about 4.87 million metric ton which is increasing at about 5% per annum.
- Total storage capacity of Oil in the country is about 0.9 million metric ton.
- To increase the refining capacity of Eastern Refinery Limited (ERL), government is actively considering increasing the refining capacity of ERL up to 4 million ton through BMRE.
- Besides these, Single Point Mooring at deep sea will be setup for oil offloading. The total storage capacity of oil in the country will be 1.4 million metric ton by December 2014.

# Liquefied Natural Gas (LNG)

- Initiative has been taken to import LNG to meet up energy demand.
- Under this program activities have been taken to-
  - ◆ set up a 90 km long pipeline from Kutubdia to Anwara and
  - ◆ install a floating LNG receiving and re-gasification station at Kutubdia as a part of importing 500 mmcf gas per day in the form of LNG by 2013.
- In this view to import LNG, MoU has already been signed with Qatar

# Import of Crude Oil

FY	Quantity (MT)	C&F Price/Million USD	Creore Taka
2001-02	12,24,707	220.19	1,277.78
2002-03	13,31,003	289.30	1,693.03
2003-04	12,52,424	314.12	1,848.43
2004-05	10,63,208	364.01	2,261.98
2005-06	12,53,285	573.65	3,901.16
2006-07	12,11,037	604.73	4,196.85
2007-08	10,40,084	762.08	5,288.85
2008-09	8,60,877	494.44	3,431.40
2009-10	11,36,567	646.21	4,491.41
2010-11	14,09,302	978.81	7,037.00
2011-12	15,50,232	1076.69	7,740.70

**Source : BPC**

## Import of Refined Oil

FY	JP, Kerosene, Octane & Diesel		Lubricating Oil		Furnace Oil	
	Quantity (MT)	Price (Crore Taka)	Quantity (MT)	Price (Crore Taka)	Quantity (MT)	Price (Crore Taka)
2001-02	2072300	2535.62	15316	30.59		
2002-03	2213899	3319.36	1911	5.10		
2003-04	2262348	4015.81	6516	18.38		
2004-05	2691750	7213.88	10189	38.14	39935	61.53
2005-06	2380582	9382.77	5137	35.53		
2006-07	2536535	10443.20	4277	25.13		
2007-08	2227753	14343.04	5006	29.94		
2008-09	2507819	10945.24	4828	23.63	29959	60.38
2009-10	2634212	12024.18	7262	52.03		
2010-11	2488456	21403.69	4749	43.75	230524	1123.17
2011-12	2737301	23544.06	4986	45.94	253576	1235.49

**Source : BPC**

# AVERAGE IMPORT PRICE OF CRUDE & HSD

<b>FY</b>	<b>Crude US\$/bbl</b>	<b>HSD (0.25% Sulpher) US\$/bbl</b>	<b>HSFO US\$/MT</b>
<b>2003-2004</b>	<b>33.41</b>	<b>39.32</b>	<b>-</b>
<b>2004-2005</b>	<b>45.85</b>	<b>56.96</b>	<b>-</b>
<b>2005-2006</b>	<b>59.04</b>	<b>75.92</b>	<b>-</b>
<b>2006-2007</b>	<b>63.59</b>	<b>78.31</b>	<b>-</b>
<b>2007-2008</b>	<b>95.70</b>	<b>119.07</b>	<b>-</b>
<b>2008-2009</b>	<b>76.87</b>	<b>83.04</b>	<b>-</b>
<b>2009-2010</b>	<b>75.66</b>	<b>86.17</b>	<b>-</b>
<b>2010-2011</b>	<b>93.13</b>	<b>113.69</b>	<b>682.30</b>
<b>2011-2012</b>	<b>125.50</b>	<b>134.94</b>	<b>744.96</b>



# Current Policy and measures

## The Government's development goals are:

- to provide energy for sustainable economic growth and for maintaining energy security in the country
- to provide energy to all socio-economic groups in the country especially to the less developed areas
- to diversify use of indigenous energy; and
- to contribute towards protection of the environment.

To achieve the above goals, the Government is planning to-

- ◆ take various measures for the petrochemical fuel sector including natural gas such as to increase the proven gas reserves by hastening survey, exploration, prospect drilling, evaluation and production optimization;
- ◆ to make an adequate assessment before the development; to introduce a method of the legal control of natural resources by the state-owned companies.

# Current Policy and measures

## **(1) Policy Framework**

Formulation of Acts, guidelines and Gas Sector Reform Road Map (GSRR) form the action plans to set concrete countermeasures, time frames, monitoring instruments etc, classified into following seven categories.

By implementing these action plans, the government aims to improve operational performance in the gas sector and reform the inadequate investment, uneconomic tariffs, inadequate investment resources, inefficient use of gas and inadequate capacity in the state-owned gas companies and government agencies.

# Current Policy and measures

## **(2) Regulator Instruments**

To develop rules and regulations for private sector participation and to establish competitive and effective markets in terms of gas purchases, sales, and transmissions.

## **(3) Sector Planning**

To update the gas master plan and disseminate investment options for the private sector.

## **(4) Increased Access to Natural Gas**

To develop a strategy for the exploration and utilization of undiscovered reserves.

## **(5) Corporate Governance**

To reduce the accounts receivables from public and private customers and minimize system losses in distribution and transmission in order to improve financial management.

## **(6) Gas Sector Restructuring**

To establish TGTDCCL as three separate companies and BGSL into two separate companies in order to improve management performance.

## **(7) Private Environment**

To allow private financing in the gas sector in order to reduce dependence on government funds.

# Current Policy and measures

## (8) other issues

- Improving energy efficiency, including the efficiency of using scarce gas resource.
- The prevailing practice of setting gas prices below international prices is encouraging inefficient use of gas and its use for applications for which more economical alternatives are available;
- Discouraging the use of gas for captive power generation by industries using suboptimum and inefficient technologies.
- Purchase higher quality machineries using advanced technology and build up efficient manpower to strengthen BAPEX.

# Current Policy and measures

## (8) other issues

- Ensure the drilling and development of wells as per plan through streamline work procedures and effective monitoring of the international oil companies.
- Secure speedy resolution of the demarcation of maritime boundary issues with India and Myanmar for the blocks located at the deep sea areas.
- Standardization of energy saving electronic machineries
- Setting up 14 thousand solar home system by REB
- The use of solar panel in all large public buildings to be made mandatory within 3 years
- Solar panel imports made duty-free

# Historical Gas Consumption in Bangladesh

Fiscal Year	U.S ENERGY INFORMATION ADMINISTRATION		PETROBANGLA	
	Annual Consumption (BCF)	Avg. Daily Consumption (MMCFD)	Annual Consumption (BCF)	Avg. Daily Consumption
1980	54.8	150.2	44.0	120.5
1981	62.3	170.8	59.0	163.3
1982	66.8	183.0	64.7	177.3
1983	81.8	224.1	70.6	193.4
1984	97.5	267.1	86.6	237.3
1985	106.5	291.8	99.4	272.3
1986	122.2	334.7	115.6	316.7
1987	140.7	385.5	141.0	386.3
1988	157.2	430.5	146.4	401.1
1989	163.1	446.9	159.1	435.9
1990	167.5	458.9	164.1	449.6
1991	189.6	519.5	178.5	489.0
1992	211.0	578.1	194.5	532.9
1993	225.3	617.3	212.1	581.2
1994	247.6	678.2	235.6	645.4
1995	264.9	725.6	254.6	697.6
1996	269.5	738.2	245.8	673.4
1997	279.5	765.8	266.6	730.3
1998	304.6	834.5	292.1	800.3
1999	331.1	907.1	306.9	840.7
2000	353.2	967.5	348.8	955.5
2001	377.9	1035.3	364.6	999.0
2002	410.5	1124.8	400.8	1098.1
2003	445.9	1221.5	427.5	1171.3
2004	478.5	1311.0	457.6	1253.7
2005	517.7	1418.4	505.1	1383.9
2006	557.8	1528.2	535.8	1467.8
2007	603.4	1653.0	584.5	1601.3
2008	664.8	1821.4	643.9	1764.2
2009	697.5	1911.0	706.5	1935.5

# Long-term production forecast (with LNG)

- The amount of gas production all included Proven (P1), Probable (P2), possible reserve (P3) and LNG will be increased until 2017, then gradually decreased thereafter.
- In 2016 and 2017, the production will be greater than the demand and the demand supply gap will be dissolved for a short period of time.
- However, the gap will be split again after 2019. The gap would reach 6,000 mmcfd as of 2030, if the demand supply forecast drastically changes.
- In the Government Target Case, the gas production is derived from the "Gas Evacuation Plan (2010-2015)" and expected gas production from each gas field extrapolated up to 2030.

# Long-term production forecast (with LNG)

<b>Gas Production Projection(mmcfd)</b>	
2009-2010	1,896 (mmcfd)
2010-2011	2,022 (mmcfd)
2011-2012	2,158 (mmcfd)
2012-2013	2,340 (mmcfd)
2013-2014	2,518 (mmcfd)
2014-2015	2,669 (mmcfd)
2015-2016	2,852 (mmcfd)
2016-2017	3,030 (mmcfd)
2017-2018	3,240 (mmcfd)
2018-2019	3,509 (mmcfd)
2019-2020	3,818 (mmcfd)
2020-2021	4,112 (mmcfd)
2021-2022	4,439 (mmcfd)
2022-2023	3,992 (mmcfd)
2023-2024	3,636 (mmcfd)
2024-2025	3,324 (mmcfd)



# Major difficulties in making policies

- With the expected development of the country in the coming years, the energy demand of Bangladesh is also expected to grow at a rapid pace led by electricity demand projected to grow at about 8% a year.
- But a good number of obstacles are in place in order to fulfill this energy demand growth, such as:
  1. Delay in finalization of National Energy Policy.
  2. Finalization of National Coal Policy.
  3. Coal exploitation is constrained by concerns over extraction methods, the technological security and the possible adverse social consequences.

# Major difficulties in making policies

- The Government is taking steps to resolve the problems in the coal sector with a view to making it a major source of primary energy supply in the future.
- The steps being taken include:
  - Formation of coal extraction plan consistent with social and environmental safeguards.
  - Building up mass awareness regarding the extraction procedure of coal especially for the open extraction method.
- 4. The investment deeds are just too large to be met through the Government's own resources.
- 5. Accordingly, a key financing strategy is to mobilize as much financing through PPP arrangements as possible.

# Major difficulties in making policies

4. The Government is also attracting direct foreign investment and domestic enterprises to invest in the energy sector.
5. Improving efficiency and cost recovery of concerned public enterprises and autonomous bodies.
6. The rising world prices of fuel and the increasing reliance on rental power plants will have an adverse effect on the financial health of energy sector entities.
7. Efforts need to be made to help them absorb these costs through price adjustments and efficiency improvements.
8. Political and vested interests.
9. Huge amount of subsidy for oil import and lower price of gas and other petroleum products compare to international price.

# Major difficulties in making policies

A pen picture of subsidy given is stated below:

## GOVERNMENT SUBSIDY LOANS & LIABILITIES TAKEN OVER BY THE GOVT. FROM 2000-2001 TO 2011-2012

<b>FY</b>	<b>Subsidy</b>	<b>Loan</b>	<b>Bank Liabilities Taken Over</b>	<b>Total</b>
<b>2000-2001</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2001-2002</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2002-2003</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2003-2004</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2004-2005</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2005-2006</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1070.00</b>
<b>2006-2007</b>	<b>600.00</b>	<b>1070.00</b>	<b>0.00</b>	<b>600.00</b>
<b>2007-2008</b>	<b>700.00</b>	<b>3400.00</b>	<b>7523.00</b>	<b>11623.00</b>
<b>2008-2009</b>	<b>0.00</b>	<b>1500.00</b>	<b>0.00</b>	<b>1500.00</b>
<b>2009-2010</b>	<b>0.00</b>	<b>900.00</b>	<b>0.00</b>	<b>900.00</b>
<b>2010-2011</b>	<b>0.00</b>	<b>4000.00</b>	<b>0.00</b>	<b>4000.00</b>
<b>2011-2012 (up to 15/03/2012)</b>	<b>0.00</b>	<b>4840.00</b>	<b>2700.00</b>	<b>7540.00</b>
<b>TOTAL</b>	<b>1300.00</b>	<b>15710.00</b>	<b>10223.00</b>	<b>27233.00</b>

## Subject I like to study and Reason

- Resettlement action policy to relocate affected people due to development activities.
- Absence of such policy is making injustice to them and spreading a sense of insecurity.

# Way Forward

- 1. Cross border energy trade**
- 2. Deep sea LNG port**
- 3. Revision of bulk and end-user tariff**
- 4. Raising of fund**
- 5. Development of domestic RE(wind +solar )**
- 6. Oil fired power station**
- 7. Energy efficiency**
- 8. PPP**
- 9. Enactment of special law**
- 10. Increase refining capacity**
- 11. Increase storage capacity**
- 12. On shore and offshore exploration**

# Conclusion

- Securing the higher economic growth targets of the Sixth Plan and Vision 2021 will critically depend upon the ability to address the energy constraint facing Bangladesh.
- The Government has embarked upon a comprehensive energy sector development strategy that seeks to substantially increase power and other energy supplies and improve sectoral efficiency during the Sixth Plan and beyond.
- The underlying strategy entails substantial new investments based on public-private partnerships, diversifying the sources of energy away from excessive reliance in gas to coal, hydro, solar and other renewable sources, engaging in energy trading activities with neighbours, especially India, developing primary energy sources including gas and coal, conserving energy, and better use of installed capacities.
- The associated policy and institutional framework involves proper enforcing of energy, sound legal and regulatory framework for private participation, enabling environment for energy trade and reforms of energy institutions.
- Many of the required actions have already been initiated;