

2017 Annual Report



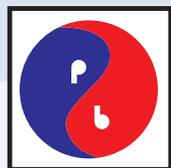
Annual Report 2017



PETROBANGLA

Bangladesh Oil, Gas and Mineral Corporation

Annual Report 2017



PETROBANGLA

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Our Vision

To provide energy for sustainable economic growth and maintain energy security of the country

Our Mission

- To enhance exploration and exploitation of natural gas
- To diversify indigenous energy resources
- To promote CNG, LNG and LPG to minimize gas demand and supply gap as well as to improve environment
- To provide indigenous primary energy to all areas and all socio economic groups
- To develop coal resources as an alternative source of energy
- To contribute towards environmental conservation of the country
- To promote efficient use of gas with a view to ensuring energy security for the future



Tawfiq-e-Elahi Chowdhury, BB, PhD
 Adviser (Minister) to the Hon'ble Prime Minister
 Power, Energy & Mineral Resources Affairs
 Government of the People's Republic of Bangladesh.

Message

The role of energy in the overall development of countries like Bangladesh hardly needs emphasis. Petrobangla and its companies have been playing the dominant role in exploration, production, transmission, distribution and development of the two vital sources of energy - gas and coal in the country. I trust the Annual Report 2017 would document its continued efforts in discharging those responsibilities.

The Father of the Nation Bangabandhu Sheikh Mujibur Rahman bought five gas fields from British oil company, Shell Oil, at a nominal price on 09 August, 1975 for ensuring energy security of the country. Following the path of development envisaged by the Father of the Nation, his worthy daughter, Prime Minister Sheikh Hasina, has also given the country's energy security one of the highest priorities. Extensive development programs were implemented during the last eight and a half years resulting in remarkable growth in the production and distribution of gas. The settlements of maritime boundaries with our neighbors have opened new possibilities for energy resources. Petrobangla is earnestly pursuing initiatives to harness the potentials from the 26 blocks in deep and shallow seas, covering of 19.5 thousand square kilometers. Alongside, energy efficiency and conservation measures should be strengthened. Customers should be encouraged to explore and adopt newer ways for cogeneration and trigeneration in the use of energy.

In order to augment energy supply and thereby support the development of Bangladesh, Petrobangla is about to add LNG for which two FSRUs are being implemented-one is just about to start operation.

I hope the dedicated workforce of Petrobangla and its subsidiary companies will continue to be significant contributor to the prosperity of Bangladesh. My felicitations to the officials associated in the publication of the Annual Report 2017.

I wish Petrobangla continued success.

Joy Bangla, Joy Bangabandhu

Long Live Bangladesh

Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram



Nasrul Hamid MP

Minister of State

Ministry of Power, Energy & Mineral Resources
Government of the People's Republic of Bangladesh

Message

Indeed, I am glad to know that Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) is going to publish its Annual Report, 2017 encompassing the activities of the organization and its companies for the FY 2016-17. I welcome to all who are related to publish this time demanding report.

Bangladesh has engineered a unique development paradigm of steady economic growth with broad range of improvements in the life of citizens as demonstrated by the human development indicators. At its heart is the visionary and focused leadership of Prime Minister Sheikh Hasina. The country has already achieved low middle income status and is in the cusps of becoming middle income by 2021.

Energy plays a pivotal role in the developmental transformation process. Petrobangla, as the apex organization in providing primary energy to diverse users- power plants, industries, commercial concerns and others, has been assigned this key responsibility. Despite remarkable increase in the gas supply capacity during the tenure of present government, the supply and use of fuel are to be increased manifold. In order to explore new gas fields for meeting the rising energy demand, initiatives are underway to implement various work including ramping up of production, transmission and distribution capacities and import of LNG. Initiation has been taken by the government to drill 108 wells in onshore by 2021. The drilling programme of Bhola North has successfully completed and it has been declared as the 27th gas field of the country. Test production at the gas field has begun on 27 January, 2018.

Import liquefied natural gas (LNG) in order to meet the growing demand of gas against a backdrop of its shortage is now a reality. LNG imports are the foremost among the preferential mega projects taken up by the government. On 6 May, 2017, the Hon'ble Prime Minister laid down the foundation stones for installation of 2 separate floating LNG terminals at Moheshkhali for supplying 500 MMSCFD of LNG each and expected to be commissioned by July and October, 2018 respectively. Besides this, Petrobangla has already started its activities to install one or more land based/floating LNG terminal(s) at Moheshkhali, Kutubdia and Paira port. Two long term LNG sales and purchase agreement (SPA) have already been signed with RasGas of Qatar and Oman Trading International (OTI) on G to G basis. Petrobangla is also accelerating extensive mining in the existing Barapukuria mine and has taken up project to develop and extract coal from Dighipara coal mine.

I wish Petrobangla every success in its ongoing and future ventures. I hope this organization, through its relentless efforts by a dedicated workforce will continue to be a significant contributor in the prosperity of Bangladesh.

Joy Bangla, Joy Bangabandhu

Long Live Bangladesh.

Nasrul Hamid, MP



Secretary
Energy & Mineral Resources Division
Ministry of Power, Energy & Mineral Resources
Government of the People's Republic of Bangladesh

Message

I am happy to know that Annual Report, 2017 of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) highlighting its activities for the financial year 2016-17, is going to be published. The report consists of different activities undertaken by Petrobangla with its' 13 companies and its future plans and priorities. My heartiest thanks and gratitude to all of its officials contributed in publishing the Annual Report.

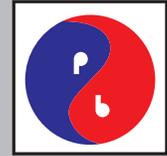
Energy is the key primary resource which is necessary for economic development and for keep running the wheels of Industry. Bangladesh achieved impressive economic growth over the recent years. It is striving to further accelerate the growth in order to materialize its vision to become a middle income country by 2021 which will obviously require secured and higher rate of energy supply. Energy division is taking numerous initiatives for enhancing and ensuring energy security so as to keep the pace of development moving. Petrobangla, the flagship organization in the country's primary energy sector entrusted with the responsibilities of exploring, developing, producing and marketing natural gas as well as extracting country's coal resources has been playing vital role in fuelling the economy.

Rapid economic development, urbanization and industrialization have increase demand for energy. To meet the demand-supply gap, Petrobangla has been operating a number of projects for enhancing supply through exploration and development of oil and gas both in onshore and offshore as well as improving the transmission capacity of natural gas. In addition to its endeavor for boosting production and supply of gas from domestic sources, Petrobangla is also executing a number of projects for importing liquefied natural gas (LNG).

It may be noted that, success of Petrobangla in one hand contributing to a great extent towards achieving 'Vision 2021' and in other hand saving foreign currencies that is paid for importing petroleum products to keep on running production viz-a-viz development of the country to reach in the take off stage. Mining of coal and granite is also contributing in power and construction sector.

I firmly believe that Petrobangla and its subsidiary companies will make further progress in future through sincerity, greater discipline, devotion, hard work and patriotism. I wish continuous progress of Petrobangla in the coming days.

(Abu Hena Md. Rahmatul Muneem)



Chairman
Petrobangla

Introduction

Since the early 1960's, indigenous natural gas has been playing very important role in the economy of Bangladesh. Due to its versatile use and affordable price, natural gas has been the principal fuel in the country for quite a long time. Although the energy mix of Bangladesh is diversifying slowly, indigenous natural gas still accounts for about three-quarters of commercial primary energy and more than half of the all primary energy supplies in the country. It is indeed a continued challenge to ensure supply of natural gas resources to fuel the economic growth of the country against the backdrop of sharply rising demand.

Bangladesh Oil, Gas and Mineral Corporation (Petrobangla), entrusted with the responsibilities of exploration, production, transportation and marketing of natural gas in the country, has been continuing its endeavors for making natural gas available to its consumers. Along with its traditional role of producing and supplying fuel from the indigenous sources, Petrobangla is set to be a importer and marketer of imported natural gas in the form of liquefied natural gas (LNG) from 2018 in order to supplement indigenous natural gas to meet the demand.

Annual Report, 2017 of Petrobangla provides an overview of the key activities, projects and performances of the corporation in the FY 2016-17, as well as future plans and priorities as it continues its endeavor with its 13 companies for ensuring environment-friendly, sustainable and affordable primary energy and granite supply in the country.

In the FY 2016-17, Petrobangla and its companies produced 971.6 billion cubic feet (BCF) of natural gas, which was equivalent to 24.3 million metric tons of oil worth 8.3 billion US dollars. Besides, about 4.3 million barrels of condensate was extracted from natural gas this year. A portion of it was fractionated into petrol, diesel and kerosene at the process plants of 3 companies under Petrobangla, and rest of the condensate was sold to Bangladesh Petroleum Corporation (BPC) and private fractionation plants. The lone coal mining company of Petrobangla extracted 1.16 million metric tons of coal this fiscal year. That is, Petrobangla and the companies under its umbrella provided fuels, around three-quarters of country's total commercial energy supply, worth around 8.7 billion US dollars in aggregate to the energy basket of the country in FY 2016-17.

Since the first discovery of natural gas in Bangladesh in the year 1955, until today, including recent discovery of Bhola North-1 gas field, 27 gas fields have been discovered in this country. Reserve estimation of Bhola North-1 gas field is underway by BAPEX. Excluding Bhola North-1, total gas initially in place (GIIP) of 26 gas fields has been estimated to be at 39.0 trillion cubic feet (TCF), out of which estimated total recoverable gas reserve (Proved plus probable) is 27.12 TCF. Up to December 2017, as much as 15.22 TCF gas was produced, leaving only 11.91 TCF of recoverable gas.

Currently 19 gas fields are in production with 110 producing wells. Gas supply in the country increased from 600.86 BCF in FY 2007-08 to 971.6 BCF in FY 2016-17 due to various development programmes undertaken by Petrobangla during this period. Of this production, grid power consumed the largest share, about 403.6 BCF (40.88%) followed by captive power and industry which consumed 160.5 BCF (16.26%) and 163.1 BCF (16.52%) respectively; fertilizer 49.1 BCF (4.97%), domestic 154.4 BCF (15.64%), CNG 46.9 (4.76%) and commercial and tea-estates together 9.6 BCF (1%) in FY 2016-17.

Gradual transformation of the country's economy from the agrarian towards industrial one, marked by higher economic growth and consequent uplift of standard of living, is calling for rapid growth in energy demand in recent years. Shunning the sluggish policies of previous regimes, exploration and development activities in the gas sector got a momentum as soon as the Government under the leadership of Hon'ble Prime Minister Sheikh Hasina, the daughter of the Father of the Nation came to power in 2009. Since then, a number of new gas structures have been delineated; 14 exploration and 50 development wells have been drilled, and workover of 24 wells have been completed. These activities added a gross flow capacity of 1,503 million standard cubic feet per day (MMscfd) with net addition of 1,006 (MMscfd) due to natural decline in flow capacity of some wells as well as depletion of two gas fields. As a result gas supply capacity has risen to 2,750 MMscfd. At the same time, a total of 858.00 km transmission pipeline has been laid under different projects in addition to installation of three compressor stations, which has contributed to larger flow of gas in the system.

Although, the problem of energy shortages is confronting since long, the pace of exploration has been rather slow in the past, leaving large area of the country still unexplored or underexplored. To come out of this paradox, Bangladesh Petroleum Exploration and Production Company Limited (BAPEX), the lone national exploration company under Petrobangla, has embarked on implementation of extensive exploration programmes that include drilling of 53 exploration wells, 20 workover wells and 35 development wells within 2021 along with 3,000 line-kilometre of 2D seismic survey during 2016 to 2019 in the onshore.

In order to reduce overwhelming dependence on natural gas and diversify the sources of energy supply, Petrobangla developed the first coal mine of the country at Barapukuria. At present, Barapukuria Coal Mine is producing approximately 4000-5000 metric tons of coal daily. About 1.1 million metric tons of coal was produced in the FY 2016-17. The coal extracted from this mine is mainly used to fuel the only coal fired 525 MW power plant of the country located in Barapukuria. Two feasibility projects, one for extension of Barapukuria and another for development of Dhighipara coal mine, are underway with the objectives of enhancing coal mining in the country.

Apart from these, Maddhapara Granite Mining Company Limited at Dinajpur - the only company of its kind in the country - extracts granite which is used mostly as construction material. Initiative has been taken to conduct a feasibility study to expand the operation of the existing mine. In the FY 2016-17, a total 3,41,982.32 metric tons of granite was produced from Maddhapara Mine and 5,06,971.05 metric tons was sold. Due to some development work the production is pasued provisionally. Considering the rise in demand, Petrobangla has undertaken a feasibility study for expansion of the granite mine. The manufacturing of Ceramic Tiles (Wall Tiles, Roof Tiles, Facing, Pavement) by using stone dust; and manufacturing of Granite Polish Block, Mosaic Block, and Gem Stone are in progress to diversify the use of granite.

To get rid the country from perennial fuel shortage, which is having a heavy toll on the country's economy, Petrobangla is set to import liquefied natural gas (LNG) in tandem with its endeavors to scale up exploration activities for new resources in the country. Two Terminal use agreements (TUA) have been signed with Excelerate Energy Bangladesh Limited and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 floating storage and re-gasification unit (FSRU) at Moheshkhali for supplying 500 MMscfd of LNG each and expected to be commissioned within 2018 and by early 2019 respectively. Besides, Petrobangla has already started its activities to install one or more land based/floating LNG terminal(s) at Moheshkhali, Kutubdia and Paira port. Two long term LNG sales and purchase agreement (SPA) have already been signed with RasGas of Qatar and Oman Trading International (OTI) on G to G basis.



Exploration in the offshore is gathering momentum. Initial exploration activities are in progress in blocks SS-04 and SS-09. In the 1st phase ONGC Videsh Ltd. (OVL) completed 3,008 lkm of 2D marine seismic survey data acquisition. In the 2nd phase OVL carried out 2,520 lkm 2D OBC survey. By January, 2019 OVL will drill one exploratory well in block SS-04 and two exploratory wells in block SS-09. In block SS-11 Santos conducted 3,050 lkm of 2D seismic survey in 2015. Interpretation and integration of the data sets have been completed and submitted the technical report to Petrobangla. Depending upon the outcome of the data interpretation, Santos conducted 305 sq. kilometers of 3D seismic survey in May, 2018. By February, 2019 Santos will drill one exploratory well in block SS-11.

The GOB has given the highest emphasis on rapid industrialization and modernization of the country. Implementation of this program requires increased supply of commercial energy. Accordingly, under "Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010", a PSC was signed for deep sea block DS-12 with POSCO DAEWOO Corporation in March, 2017. Initially POSCO DAEWOO Corporation carried out 3,560 lkm 2D seismic survey. Five Leads have been identified in this block, among the 5 Leads 2 (two) Leads are very potential. POSCO DAEWOO Corporation is planning to conduct 2,000 Sq. kms of 3D Seismic Survey in this block by November, 2018.

During FY 2016-17, Petrobangla group contributed to national exchequer an amount to the tune of Tk. 1,31,894.9 million and saved a considerable amount of foreign exchange by substituting import of fuel.

Petrobangla as the state-owned flagship organization in the energy sector of the country, with its large army of dedicated workforce, is making its all-out efforts for maximizing the supply of fossil fuels, be it from indigenous sources or imported. It is now well perceived that after completion of ongoing efforts of Petrobangla, gas shortage in the country will soon be a matter of past in the country by the grace of Almighty.

I hope this issue of Annual Report will be of interest to a wide variety of readers as a reference document.

(Abul Mansur Md. Faizullah ndc)

Board of **Directors** (Incumbent)



Abul Mansur Md. Faizullah ndc
Chairman
Petrobangla
Chairman of the Board



Dr. Md. Jafar Uddin
Addl. Secy. Finance Division
representing MoF
Director of the Board



Sheikh Md. Abdul Ahad
Chief, Industry & Energy Division
Planning Commission
representing MoP
Director of the Board



Parveen Akhter
Addl. Secy. (Planning)
representing EMRD
Director of the Board



Md. Mostafa Kamal
Director (Admin)
Petrobangla
Director of the Board



Md. Towhid Hasanat Khan
Director (Finance)
Petrobangla
Director of the Board



Md. Ayub Khan Chowdhury
Director (Planning)
Petrobangla
Director of the Board



Md. Mahbub Sarwar
Director (PSC)
Petrobangla
Director of the Board



Md. Kamruzzaman
Director (Operation and Mines)
Petrobangla
Director of the Board



Past and Present

Chairmen of Petrobangla

No.	Name	Tenure
01	Dr. A. Y. M. Habibur Rahman	21.04.1972 - 14.06.1976
02	Dr. Nazrul Islam	19.07.1976 - 14.02.1980
03	Syed Hasan Ahmed	18.02.1980 - 05.10.1981
04	M. A. Faiz	12.10.1981 - 28.02.1983
05	Gr. Capt. Qazi Aftab Ahmed, psc	01.03.1983 - 26.05.1984
06	Shafiul Alam	26.05.1984 - 27.08.1984
07	Jalaluddin Ahmed	27.08.1984 - 10.03.1985
08	Md. Habibur Rahman	07.04.1985 - 09.10.1988
09	Jamiluddin Ahmed	10.10.1988 - 03.12.1988
10	Lt. Col (Retd.) Heshamuddin Ahmed, psc	03.12.1988 - 25.11.1989
11	Ataul Karim	27.11.1989 - 31.12.1990
12	M. A. Lutful Matin	01.01.1991 - 09.05.1992
13	S.K.M. Abdullah	09.05.1992 - 31.12.1995
14	Dr. Mujibur Rahman Khan	04.01.1996 - 25.05.1996
15	Md. Mosharraf Hossain	25.05.1996 - 31.12.1996 15.04.1997 - 22.05.2001
16	Professor Dr. Md. Hussain Monsur	05.07.2001 - 01.11.2001
17	Syed Sajedul Karim	03.12.2001 - 28.04.2003
18	S.R. Osmani	30.10.2005 - 14.12.2005
19	A.M.M. Nasiruddin	30.10.2005 - 14.12.2005
20	M Musharraf Hossain Bhuiyan	14.12.2005 - 09.01.2007
21	Md.Wahidunnabi Chowdhury	14.01.2007 - 14.02.2007
22	Dr. Sheikh Abdur Rashid	14.02.2007 - 24.09.2007
23	Jalal Ahmed	24.09.2007 - 19.04.2009
24	Major Md.Muqtadir Ali (Retd.)	19.04.2009 - 17.10.2009
25	Professor Dr. Md. Hussain Monsur	18.10.2009 - 18.10.2014
26	Istiaque Ahmad	23.10.2014 - 21.12.2016
27	Abul Mansur Md. Faizullah ndc	01.01.2017 - Incumbent



The Genesis

Bangladesh Minerals, Oil and Gas Corporation (BMOGC) was established pursuant to President's Order no. 27 of 26 March, 1972 for dealing with the exploration and development of oil, gas and mineral resources of the country. The activities of the corporation relating to minerals was segregated and placed under a new organization named Bangladesh Mineral Exploration and Development Corporation (BMEDC) formed by President's Order no. 120 of 27 September, 1972. The reconstituted Bangladesh Oil and Gas Corporation (BOGC) was short-named "Petrobangla" by Ordinance no. XV of 22 August, 1974. Through the repeal of Ordinance no. LXX of 1974, Oil and Gas Development Corporation was abolished and all its assets and liabilities were vested in Petrobangla. On 13 November, 1976, by promulgation of the Ordinance no. 88, the import, refining and marketing of crude and petroleum products were separated and vested in the newly-formed Bangladesh Petroleum Corporation (BPC).

BOGC and BMEDC were merged into a single entity under the name "Bangladesh Oil, Gas and Mineral Corporation (BOGMC)" by Ordinance no. 21 of 11 April, 1985. The corporation was short named "Petrobangla" and given power to hold shares or interest in any company formed for the purpose of exploration and exploitation of oil, gas and mineral resources by Act XI of February, 1989.



Functions and Powers of Petrobangla

Petrobangla has been assigned with the following functions by the Bangladesh Oil, Gas and Mineral Corporation Ordinance, 1985 :

- to undertake research in the field of oil, gas and minerals;
- to prepare and implement programmes for the exploration and development of oil, gas and mineral resources;
- to produce and sell oil, gas and mineral resources; and
- to perform such other functions as the Government may, from time to time, assign to the Corporation.

Without prejudice to the generality of the foregoing provisions, the Corporation shall, in particular, have power :

- to undertake research for alternative use of natural gas;
- to carry out geological, geophysical and other surveys for the exploration and development of oil, gas and mineral resources;
- to carry out drilling and other prospecting operations to prove and estimate the reserves of oil, gas and mineral resources and collect all data required for adopting the most suitable extraction and mining method;
- to set up mining industries and to continue production and sale of mined commodities;
- to take up, execute and operate any project on mining and mineral development;
- to contribute towards the cost of any studies, experiments or technical research, connected with the functions of the Corporation and under-taken or done in the interest of the Corporation by any other person, body or agency; and
- to undertake, assist or encourage the collection, maintenance and publication of statistics, bulletins and monographs pertaining to the business of the Corporation.

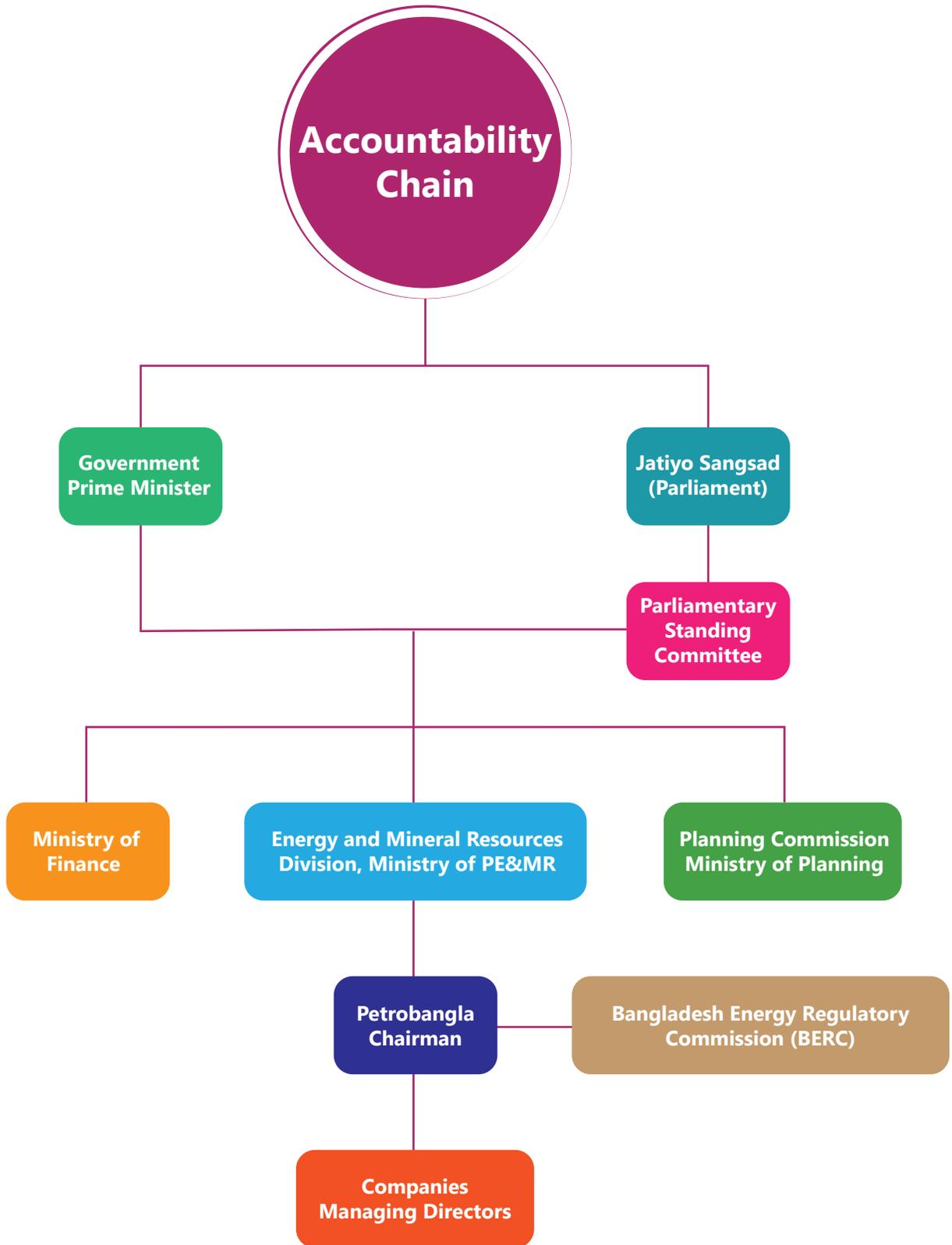
Petrobangla and the Government

Petrobangla operates as a public sector statutory body pursuant to Bangladesh Oil, Gas and Mineral Corporation Ordinance, 1985 and Bangladesh Oil, Gas and Mineral Corporation (Amendment) Act, 1989. The general direction and administration of the affairs and business of the corporation vest in its Board of Directors. It is the policy making and managing body of the corporation, with members from Energy, Finance and Planning Ministries. The Board in discharging its functions acts on commercial consideration having due regard to public interest. The corporation is under the administrative control of the Energy and Mineral Resources Division of the Ministry of Power, Energy and Mineral Resources. The corporation has also close relationship, through the Ministry of Power, Energy and Mineral Resources, with the Ministry of Finance and the Ministry of Planning for its development programmes. There is also active relationship between the corporation and other functional bodies such as Bangladesh Energy Regulatory Commission, National Board of Revenue, the Department of Explosives and the Department of Environment for relevant purposes.

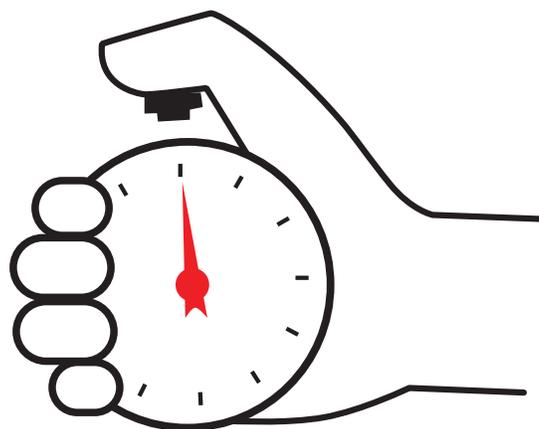
The activities of the corporation is reviewed and examined by the Public Accounts Committee and the Parliamentary Standing Committee on Power, Energy and Mineral Resources.



Prime Minister's Energy Adviser Dr Tawfiq-e-Elahi Chowdhury hands over a cheque for Tk. 8.04 crore to Hon'ble Prime Minister Sheikh Hasina at a function at Ganabhaban. State Minister for Power, Energy and Mineral Resources Nasrul Hamid, MP, Secretary for Energy and Mineral Resources Division Nazimuddin Chowdhury and Petrobangla Chairman Abul Mansur Md. Faizullah ndc were present on the occasion.



A Brief History of Oil, Gas and Mineral Industry In Bangladesh



The beginning : up to 1947

The search for oil and gas in the area constituting Bangladesh began in the later part of the 19th century through some isolated geological mapping. The first serious attempt to find oil and gas was undertaken in Sitakund in 1908 by the Indian Petroleum Prospecting Company, 18 years after the first oil discovery in Digboi, Assam. During 1923-31 Burmah Oil

Company (BOC) drilled 2 shallow wells in Patharia. The wells were abandoned though there was a reported show of oil. A total of 6 exploratory wells were drilled, the deepest being 1047 meters. There was, however, no discovery and the Second World War disrupted further activities.

The interim : 1948 to 1971

The promulgation of Petroleum Act in 1948 generated a lot of interest in oil and gas exploration by international oil companies. The Standard Vacuum Oil Company (STANVAC) of USA, Pakistan Petroleum Ltd. (PPL), Burmah Oil Company affiliate and Pakistan Shell Oil Company (PSOC) carried out exploration till the end of the sixties. STANVAC drilled 3 wells at Hazipur, Bogura and Kuchma in the north-western part of the country without success. PPL drilled wells in Haripur, Patharia, Chatak, Fenchuganj, Patiya and Lalmai and made the first gas discovery in Haripur in 1955,

followed by Chattak in 1959. PSOC was the most successful company and discovered 5 gas fields named Titas, Habiganj, Rashidpur, Kailashtila and Bakhrabad. They also drilled the first offshore well Cox's Bazar-1, which was dry.

Oil and Gas Development Corporation (OGDC) was established in 1961 providing an institutional foundation for exploration of oil and gas in the country. OGDC carried out geological and geophysical surveys including gravity, magnetic and seismic types and drilled wells in Jaldi and Semutang, discovering gas in Semutang in 1970.

The way forward : 1972 to 1979

After the independence of Bangladesh, exploration activities by both national and international companies gathered pace. Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) continued its exploration efforts while the Bangladesh Petroleum Act was passed

in 1974 to facilitate international participation under production sharing contract (PSC). The offshore area of Bangladesh was divided into 6 blocks, which were taken up by Ashland, ARCO, BODC (Japex), Union Oil, Canadian Superior Oil and Ina Naftaplin under PSCs. These companies



carried out gravity, magnetic and seismic surveys (about 32,000 km) and drilled 7 wells. Of them, only Union Oil Company discovered an offshore gas field Kutubdia in 1977. This phase of PSC ended in relinquishment of the blocks by the PSC operators in 1978. On 9 August, 1975, government led by the Father of the Nation Bangabandhu Sheikh Mujibur Rahman purchased 5 gas fields, namely Titas, Habiganj, Rashidpur, Kailashtila and Bakhrabad from British company, Shell Petroleum Company Limited, for a nominal amount of 4.5 million pound sterling. This landmark decision taken by the then government laid the foundation of energy security of the country by introducing sole ownership of the state over these major gas fields.



Ownership Transfer Agreement of 5 Gas Fields from Shell Petroleum Company to Petrobangla.

Gathering Momentum : 1980 onwards

The 1980s saw accelerated exploration activities by Petrobangla. During the time, 12 exploration wells were drilled at Muladi, Begumganj, Singra, Beanibazar, Atgram, Feni, Fenchuganj, Sitakund, Bogura, Kamta, Marichakandi (Meghna) and Belabo (Narshindi); and 7 gas fields were discovered at Begumganj, Beanibazar, Feni, Fenchuganj, Kamta, Marichakandi (Meghna) and Belabo (Narshindi). Among these, Fenchuganj no. 2 well remains the deepest one drilled so far in Bangladesh (4,977 m). Meanwhile, a new milestone was achieved when Petrobangla discovered the first commercial oil pool in Sylhet no. 7 on 23 December, 1986. Since 1989, after the formation of BAPEX as the national exploration company and thereafter exploration and production company, the company has continued exploration and production activities and drilled 4 exploratory wells discovering gas at Shahbazpur, Saldanadi, Srikail and Sundalpur.

In 1981 Shell Oil Company (Shell) was awarded the Chattogram Hill Tracts for petroleum exploration under PSC. Shell conducted geological and seismic survey and drilled the Sitapahar well which was found dry. Subsequently Shell undertook exploration in the extreme north west of the country and drilled the first well in the area - the Salbanhat well which was also dry. In 1988 Scimitar Exploration Limited was awarded another PSC of what is now block no. 13 in the Surma basin. They failed to prove the extent of the oil discovery at Sylhet structure but discovered the Jalalabad gas field.

Formulation of National Energy Policy, 1996 and adoption of a model production sharing contract (PSC) document together with redefining the whole of

Bangladesh territory into 23 exploration blocks ushered in a new phase of exploration and development of oil and gas in the country. In the first stage under the new arrangement, 8 blocks were awarded to 4 companies under PSC. Exploration and development activities in these blocks were rather limited and most of the blocks were moderately covered by seismic surveys. A total of 11 exploration wells were drilled and 3 gas fields were discovered in these blocks. These fields are Moulvibazar, Sangu (offshore) and Bibiyana. These 3 fields along with Jalalabad gas field discovered by Scimitar Exploration Ltd. were developed under PSC and are currently in production. The first 3D seismic survey of the country took place in Bibiyana during its appraisal. Bibiyana came under production in March, 2007. Another PSC bidding round during the late nineties culminated in awarding 4 more blocks. These were SHELL/CAIRN/BAPEX in blocks no. 5 and 10, UNOCAL/BAPEX in block no. 7 and TULLOW/CHEVRON/TAXACO/BAPEX in block no. 9. Exploration activity was conducted in these blocks. Substantial activities were undertaken in block no. 9 only where 5 exploration wells were drilled on the basis of seismic survey including 3D seismic discovering Bangura Gas Field.

The Offshore Bidding Round 2008 being limited to newly-formed deep water blocks, attracted some bids. However, the ensuing maritime boundary dispute in most of the blocks created a stalemate. In this backdrop, 2 blocks were negotiated with Conoco Phillips and a PSC for 2 blocks were signed in 2011. Conoco Phillips completed the initial seismic survey in the blocks. They relinquished these blocks in 2014 without drilling any exploratory well.



After the resolution of the maritime boundary dispute with Myanmar by virtue of the judgment awarded on 14 March, 2012 by International Tribunal For The Law of The Sea (ITLOS), the deep water blocks on the eastern part were rearranged. This is a widely acclaimed achievement of the government led by Hon'ble Prime Minister Sheikh Hasina. The Bangladesh Offshore Bid Round 2012 was announced in December, 2012 and substantial initial response was received. Under this bid round, 3 shallow water PSCs have been signed with ONGC Videsh, Oil India & BAPEX for blocks SS-04 and SS-09 and Santos, KrisEnergy and BAPEX for block SS-11. Under "Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010", a PSC has been signed for deep sea block DS-12 with POSCO DAEWOO Corporation in March, 2017. According to the signed PSC for blocks SS-04, SS-09 & SS-11, 4 offshore drillings are mandatory in these 3 blocks within the first Quarter of 2019. Operators of these blocks are now working with planning and preparation of an upcoming drilling operation. 2D seismic survey result of deepwater block DS-12 is also enthusiastic, and the operator of this block planned for 3D Seismic before the scheduled exploration period. All of the onshore PSCs have matured from the exploration phase to the production phase and major areas of the blocks have been relinquished. As of December, 2017 PSCs are active in production areas of blocks 12, 13 and 14 with Bibiyana, Jalalabad and Moulvibazar gas fields operated by Chevron, and block 9 with Bangura Gas Field operated by Kris Energy.

Even though exploration history of oil and gas in Bangladesh goes back almost a century, exploration density could not be enhanced as much it is required to convert domestic oil and gas resources into proven reserves. However, the exploration success ratio is high as of about 1 in 3 wells. PSC was the major contributor in country's gas production throughout the year of 2017. As of December, 2017 out of 26 gas fields discovered, 20 were under production. Meanwhile, peak gas production per day crossed the level of 2,700 MMscfd in December, 2016. Despite increase in production, the rising demand could not be met and the gap between supply and demand is widening. As such, the government has taken steps to import LNG and to implement massive exploration programmes in both onshore and offshore areas to minimize the gap.

Minerals :

Petrobangla is also entrusted with mineral development in the country. While the exploration part of minerals activity falls under the charter of Geological Survey of Bangladesh (GSB), subsequent development of economic deposits are undertaken by Petrobangla. Mineral activities were part of the erstwhile Bangladesh Mineral Exploration and Development Corporation (BMEDC) till its merger with BOGMC. Petrobangla has developed 2 underground mines, one for coal at Barapukuria which started commercial production in September, 2005 and the other for granite at Maddhapara which went into commercial production in May, 2007. Certain other extraction operation, like limestone, white clay and boulder, are controlled by the government through the Bureau of Mineral Development (BMD).



Activities of Petrobangla

The activities of the Petrobangla group encompass the whole spectrum of oil, gas and mineral sector of the country. The companies under Petrobangla are involved in each of the stages from the drill bit to burner tips. Through its companies, Petrobangla conducts geological and geophysical exploration with the help of its own crew, drills exploration and development wells with its own rig or with the help of hired contractors, processes raw gas to the pipeline specification, transports the processed gas through an increasing network of high-pressure transmission lines and distributes gas to the customers, be it a large

power plant or fertilizer factory or a single household. Value added LPG and liquid fuel such as Motor Spirit, Diesel, Kerosene etc. are extracted from NGL and condensate which are by-products of gas. Compressed natural gas (CNG) is extensively used in vehicles substituting for imported liquid fuels. Extraction of coal and granite are also conducted by Petrobangla. Furthermore, to rid the country from perennial fuel shortage, Petrobangla is set to import liquefied natural gas (LNG) in tandem with its endeavors to scale up exploration activities for new resources in the country.

Exploration :

Geological : During the field season 2016-17, a total of 106 lkm survey has been conducted by Geological Survey Party. Well proposal of Shahbazpur East Exploratory Well-1, Kasba Exploratory Well-1 and Bhola North Exploratory Well-1 have been prepared based on acquired 3D seismic data and geological data of existing wells. Moreover, revised well proposal of Srikail North Exploratory Well-1 and Sunetra Exploratory Well-2 have been prepared on the basis of newly acquired 3D seismic data and existing well data. In addition, well proposals of Srikail East Exploratory Well-1 and Salda North Exploratory Well-1 are ongoing with approval of G & G Committee. The technical team from Petrobangla, BAPEX, BPI and MOECO officials of Japan submitted a report on Block-8 & 11 area and well location of Madarganj Exploratory Well-1 has been demarcated. Final well location of Shahbazpur East Exploratory Well-1, Kasba Exploratory Well-1, Bhola North Exploratory Well-1, Srikail East Exploratory Well-1 and Salda North Exploratory Well-1 have been demarcated at the field level as per well proposals. Interpretation of newly acquired seismic data on Shariatpur, Patharia, Harargaj, Zakiganj and Batchia prospect are being continued.

Well monitoring of Mubarakpur Exploratory Well-1, Shahbazpur Well-4 Workover, Shahabazpur -2 Workover and Shahjadpur-Sundalpur Development/Appraisal Well-2. In addition to the above mentioned jobs Geological Consultancy Services for Rashidpur Well-9 and Rashidpur Well-12 have been provided for SGFL. Reserve evaluation of Sundalpur Gas Field and New Gas Sand found in the SGFL's Rashidpur Well-9 has been done. Reserve re-evaluation process for the existing gas fields and reserve monitoring of the Fields are continued as well.



Mudlogging service has been provided at Mubarakpur Exploratory Well-1 and Shahjadpur-Sundalpur-2 Development/Appraisal Well. Besides, geological technical order (GTO) of Shahbazpur East Exploratory Well-1, Bhola North Exploratory Well-1, Begumganj-4 Development cum Appraisal have been prepared.

2D Seismic Survey : From the year 2012-2013, a project titled "2D Seismic Project of BAPEX" has been approved by the Energy & Mineral Resources Division to conduct 3,600 lkm high resolution seismic survey to be implemented under the GDF fund from December, 2012 to June, 2018. The project area includes exploration Block-2B, 3B, 6A, 6B, 8, 9 and 11 consists of Dhaka, Munshiganj, Narayanganj, Cumilla, Faridpur, Sherpur, Mymensingh and Bogura; Block-5 and 10 includes Khulna, Begerhat and Barishal; Exploration Block-12, 13, 14 and 15 includes Sylhet, Habiganj, Maulvibazar, Brahmanbaria, Sunamganj, Narsingdi, Feni, Chattogram and Khagrachori. During 2016-17 field season, 1,360 lkm 2D Seismic data has been acquired from Manikganj, Savar, Feni, Chattogram, Khagrachari, khulna, Sylhet, Moulavibazar, Sunamganj and Habiganj areas. Data processing and interpretation of these area are in progress. By this time a total of 3,600 lkm data has been acquired under this project. After preliminary processing and interpretation, Jamalpur, Madarganj, Shariatpur, Madan, Hararganj, Patharia, Batchia, Zakiganj, Dupitila, Savar, Gazipur etc. potential seismic leads/prospects have been delineated.

Drilling :

Shahbazpur East-1 well : The drilling of Shahbazpur East-1 well was started on 21 August, 2017 and completed on 18 October, 2017. Shahbazpur East-1 drilling was conducted by GAZPROM at a depth of 3,550 meters. DST-1 from 3,459 m to 3,452 m at the pressure of 3,600 psi, shut in pressure at 4,250 psi. DST-2 from 3,443 m to 3,415 m at the pressure of 3,450 psi, shut in pressure at 4,250 psi. This well is ready for commercial production.

Shahbazpur-2 well : The workover of Shahbazpur-2 well was started on 7 March, 2017 and completed on 31 May 2017 by IPS Card Well Gardner Denver E-1100 rig. Packer set as 31,993.4 m gas flowing.

Shahbazpur-1 well : Rig padding and associated task have been performed for the workover of Shahbazpur-1.

Bhola North-1 well : The drilling of Bhola North-1 has been started on 3 December, 2017 conducted by GAZPROM. Drilling is in progress.

Salda North-1 well : Land accusation and civil works of Salda North-1 well drilling under Rupkalpa-1 project are in progress.

3D Seismic Survey : In order to meet up the growing gas demand of the country and demarcate new well locations in the discovered gas fields or hydrocarbon prolific structures a project entitled "3D Seismic Project of BAPEX" has been approved by the Energy & Mineral Resources Division during December, 2012 to November, 2019 with an estimated cost of Tk. 2,477.0 million financed by gas development fund (GDF). Under this project, a plan to acquire 3D Seismic data over 2,700 sq. km area including Sunetra, Srikail, Sundalpur-Begumganj, Shahbazpur, Narsingdi, Mubarakpur, Rupganj, Fenchuganj and Semutang gas fields or structures. To fulfil this, 3D Seismic data acquisition over a total of 1950 sq. km including Narsingdi 200 sq. km and Mubarakpur 300 sq. km; totalling 500 sq. km area has been accomplished during 2016-17 field season. 3D seismic data processing of Narsingdi and Mubarakpur has been completed and data interpretation of these areas is going on.



Kasba-1 well: Land accusation and civil works of Kasba-1 well drilling under Rupkalpa-3 project are in progress.



Production :

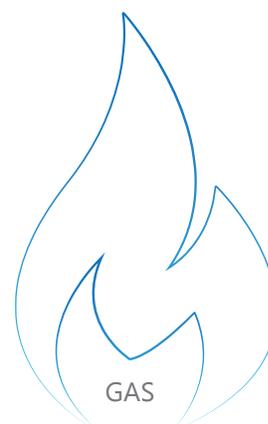
In the FY 2016-17, total 971.6 BCF gas was produced in the country. Two major public sector gas production companies Bangladesh Gas Fields Company Limited (BGFCL) and Sylhet Gas Fields Limited (SGFL), added 36.32% of total gas produced during FY 2016-17. BAPEX was assigned with production activities in 2000. It produced 36.7 BCF gas in FY 2016-17. Total production of these 3 national companies stood 389.6 BCF which was 40.10% of total production of gas during FY 2016-17. The remaining 582 BCF gas was produced by IOCs (Chevron and Tullow), which was 59.9% of total production of gas during 2016-17.

Compared to the previous year, Chevron produced 1.12% higher while Tullow and BAPEX produced 5.36% lower and 14.87% lower amount of gas respectively, in FY 2016-17. BGFCL and SGFL maintained their production almost at the same level of the previous year. The total production in FY 2016-17 stood at 971.6 BCF, averaging about 2,654.6 MMscfd. Out of this, BGFCL produced 301.6 BCF, SGFL 51.3 BCF, BAPEX 36.6 BCF, Chevron 547.2 BCF and Tullow 34.8 BCF. The major producing fields of the companies under Petrobangla are : Titas Gas Field contributing 19.66%, Habiganj 8.36%, Kailashtila 2.44%, Rashidpur 2.12% and Fenchuganj 0.91%, whereas major producing fields

under IOCs are : Bibiyana contributing 44.97%, Jalalabad 9.94%, Moulvibazar 1.41% and Bangura 3.58% .

At the end of FY 2016-17, 20 gas fields were in production with 112 flowing wells. Out of these fields, 5 were operated by BGFCL, 4 by SGFL, 7 by BAPEX, 3 by Chevron and 1 by Tullow.

During the period from July to December, 2017, Chevron and Tullow produced 277.85 BCF and 17.5 BCF gas respectively while local companies produced 194.68 BCF gas, making total of 490.03 BCF.



Transmission :

Transportation of high pressure gas in the country is the responsibility of Gas Transmission Company Limited (GTCL). GTCL owns and operates major gas transmission pipelines throughout the country. Gas transmission pipelines built by other companies before the creation of GTCL have been integrated with the GTCL system. GTCL has undertaken a number of gas transmission pipeline construction projects to ensure the transmission capacity; these include Moheshkhali-Anowara 30" x 91 km gas transmission pipeline, Anowara-Fouzdarhat 42" x 30 km gas transmission pipeline, Moheshkhali-Anowara 42" x 79 km gas transmission Parallel pipeline, Bakhrabad-Feni-Chattogram 30" x 181 km gas transmission parallel pipeline, Monohordi-Dhanua and Elenga-East Bank of Jamuna Bridge 30" x 51 km gas transmission pipeline, Hatikumrul-Ishwardi-Bheramara 30" x 87 km gas transmission pipeline, Bonpara-Rajshahi 12" x 53 km gas transmission pipeline, Bheramara-Khulna 20" x 165 km gas transmission pipeline, Bakhrabad-Siddhirganj 30" x 60 km gas transmission pipeline, Ashuganj-Bakhrabad 30" x 61 km gas transmission pipeline, 24" x 7.5 km gas transmission

pipeline from Titas location no. 7 to A-B pipeline, Bibiyana-Dhanua 36" x 137 km gas transmission pipeline and installation of compressor stations at Ashuganj and Elenga by GTCL to enhance the gas transmission capacity. Among them, construction of 30" x 51 km Monohordi-Dhanua and Elenga-East Bank of Bangabandhu Bridge gas transmission pipeline, Hatikumrul-Ishwardi-Bheramara 30" x 87 km gas transmission pipeline, Bonpara-Rajshahi 12" x 53 km gas transmission pipeline, Bibiyana-Dhanua 36" x 137 km gas transmission pipeline, 24" x 7.5 km gas transmission pipeline from Titas location no. 7 to A-B Pipeline, Bheramara-Khulna 20" x 165 km gas transmission pipeline, gas transmission capacity expansion-Ashuganj to Bakhrabad, Bakhrabad-Siddhirganj 30" x 60 km gas transmission pipeline, construction of 10" x 7.70 km interconnection gas transmission pipeline from Titas Gas Field (Location C-B-A) to Titas-A-B Pipeline Project, Sarail-Khatihata and Malihata-Khatihata 20" x 3.5 Km gas transmission pipeline Project and Moheshkhali-Anowara 30" x 91 km gas transmission pipeline have already been completed.

Substantially completed projects by GTCL are :

- Installation of compressor stations at Ashuganj and Elenga and
- Rehabilitation and expansion of existing supervisory control and data acquisition (SCADA) system of national gas grid under GTCL (Component B of Bheramara Combined Cycle Power Plant Development Project).

Running projects are :

- Dhanua-Elenga and Bangabandhu Bridge West Bank-Nalka 30" x 66 km gas transmission pipeline.
- Anowara-Fouzdarhat 42" x 30 km gas transmission pipeline.
- Bakhrabad-Feni-Chattogram 30" x 181 km gas transmission parallel pipeline.
- Moheshkhali-Anowara 42" x 79 km gas transmission parallel pipeline.
- Construction of 30" x 6.15 km Padma river crossing gas transmission pipeline.

Pipelines :

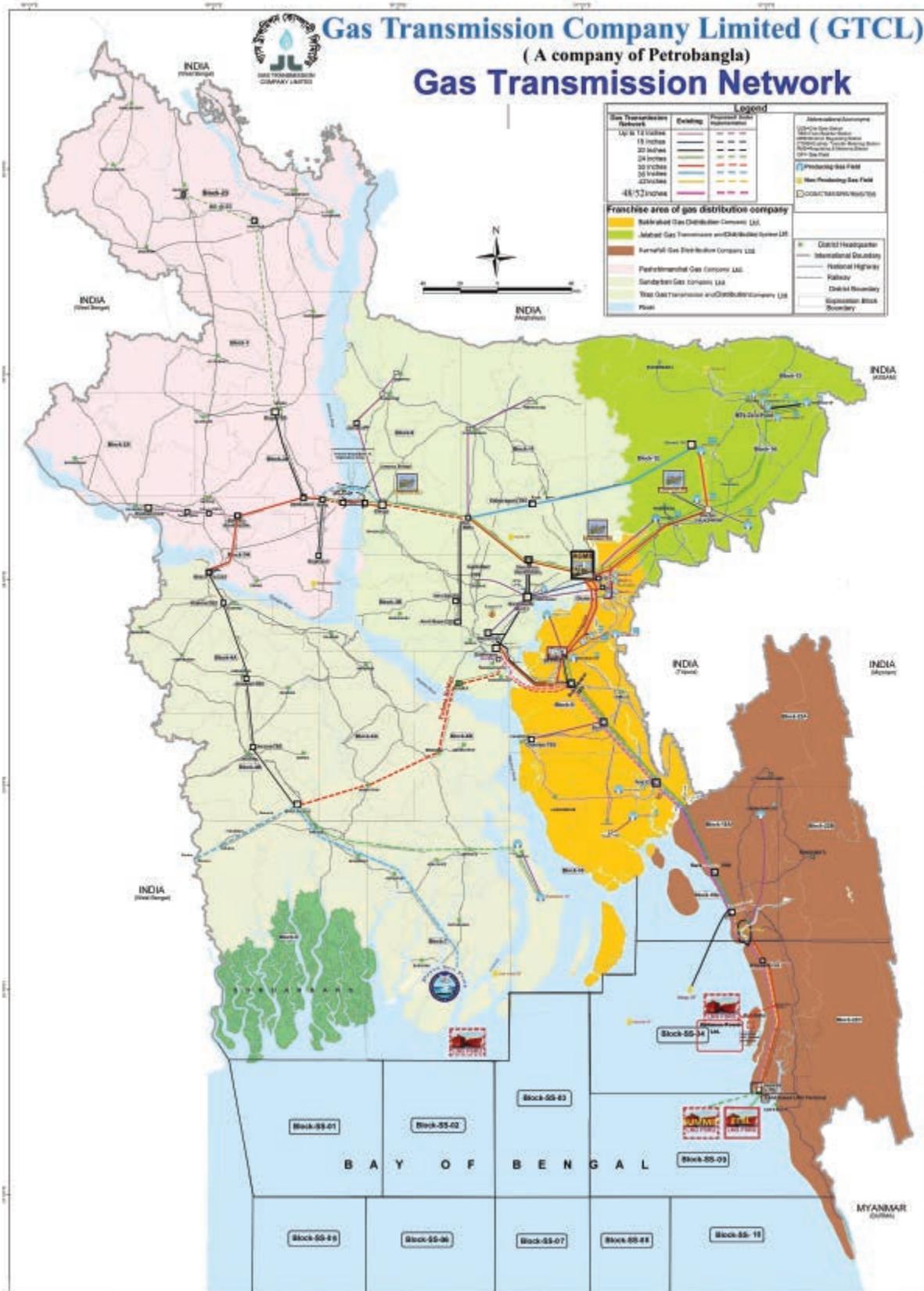
Gas pipeline network continued to expand both in transmission and distribution. In total about 204.83 km pipelines of various sizes and grades were completed during the year 2016-17; these included 180.48 km transmission pipeline, 5.45 km distribution pipelines, 6.68 km feeder main and service lines and 12.22 km others (customer financing) pipelines. As on June, 2017 the gas pipeline network encompassed about 24,034 km comprising of about 2,747.96 km transmission

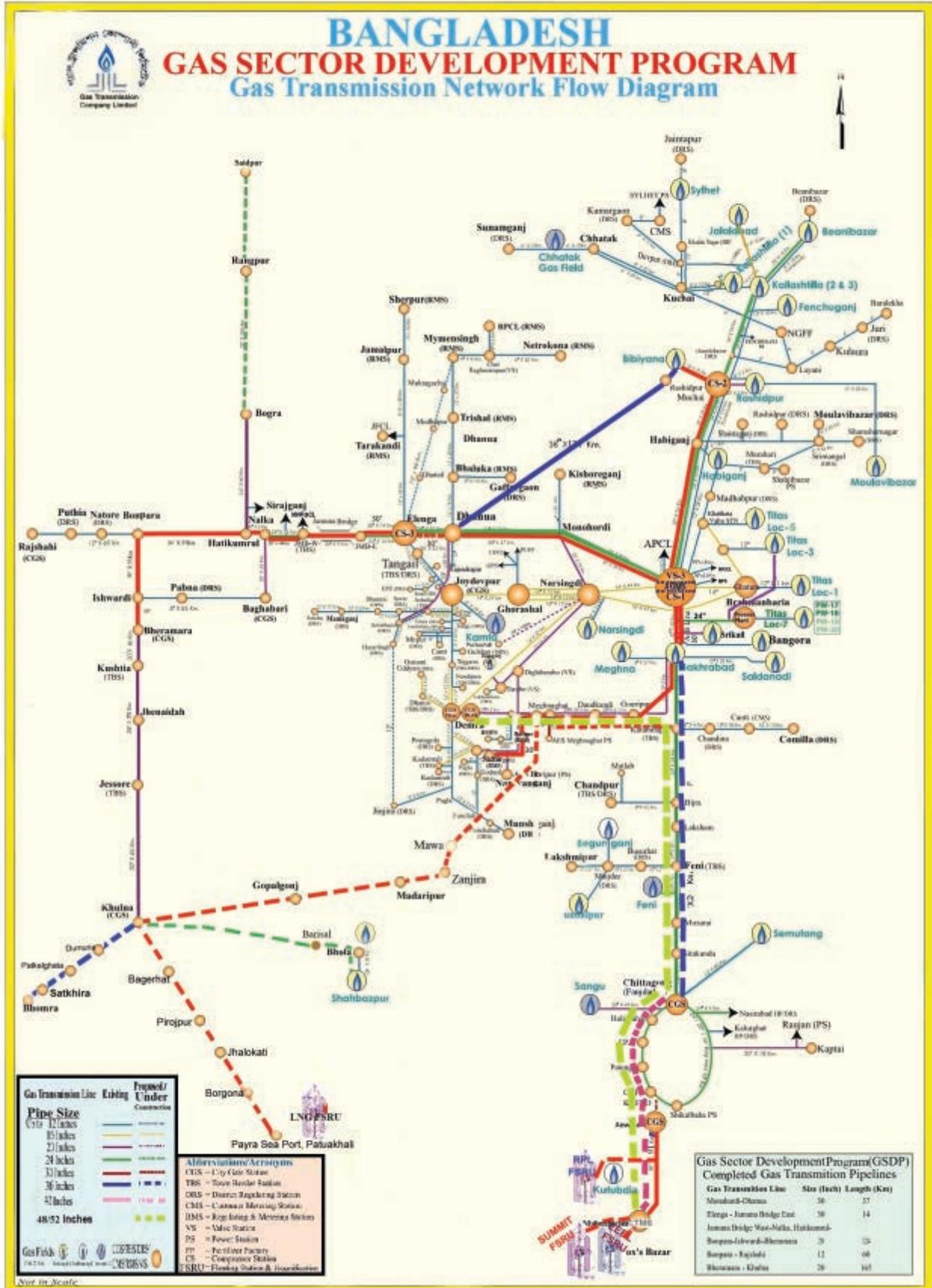
lines, 2,380.62 km distribution lines, 16,677.49 km feeder main and service lines and the rest 2,014.36 km other (customer financing) lines.

As in December, 2017 the pipeline network increased to about 24,070.23 km, which included about 2,753.59 km transmission lines, 2,380.72 km distribution lines, 16,697.69 km feeder main and service lines and the rest 2,024.66 km pipelines constructed under customer financing.



Pipeline construction work of Dhanua-Elenga Gas Pipeline Project by GTCL







Distribution :

Six marketing or distribution companies under Petrobangla are entrusted with the responsibility of marketing of natural gas to the customers varying from large power and fertilizer plants to small households. These are : (1) Titas Gas Transmission and Distribution Company Limited (TGTDC), (2) Bakhrabad Gas Distribution Company Limited (BGDC), (3) Jalalabad Gas Transmission and Distribution System Limited (JGTDSL), (4) Paschimanchal Gas Company Limited (PGCL), (5) Karnaphuli Gas Distribution Company Limited (KGDCL) and (6) Sundarban Gas Company Limited (SGCL). Each company has its own marketing franchise area, covered by a fairly extensive distribution

network. Among these marketing companies, Sundarban Gas Company Limited is the youngest one, which has started its operation in Bhola since 2013 and very recently at Bheramara from March, 2017.

The total gas sales of the aforesaid 6 marketing companies in operation during the FY 2016-17 was about 987.3 BCF, of which TGTDC, being the largest shared about 63%, followed by BGDC 13%, KGDCL 8.9%, JGTDSL 10.7%, PGCL 3.1% and SGCL 1.3%. Gas sector catered to 4.184 million customers under various categories as in June, 2017 which decreased to 4.183 million at the end of December, 2017. Most of these customers are of domestic category.

Condensate and Natural Gas Liquids (NGL) :

Some of the gas fields located in north-eastern part of Bangladesh contain high concentration of liquid hydrocarbon. Production of value added finished petroleum products from this liquid hydrocarbon or condensate is becoming a growing activity. With the introduction of liquid recovery unit (LRU), condensate production from Bibiyana Gas Field has been increased from 5,500 barrels/day to 9,500 barrels/day. Apart from the fractionating condensate from national fields in fractionation plants installed at different gas fields, Rashidpur Condensate Fractionation Plant with a capacity of 3,750 barrels/day is producing petrol, diesel and kerosene by fractionating the condensate received from Bibiyana Gas Field. During 2016-17, a total of 525,424 barrels of condensate was produced by SGFL, BGFCL and BAPEX and 3,819,550 barrels by IOCs as a by-product of gas. During the same period, SGFL extracted 156,497 barrels of NGL from the gas processed in its Mole-Sieve Turbo Expander plant at Kailashtila. On the other hand, a total of 789,239

barrels of petrol, 333,811 barrels of diesel and 78,698 barrels of kerosene was produced by fractionating the condensate at the fractionation plants located at different fields of SGFL, BGFCL and RPGCL.



Rashidpur Condensate Fractionation Plant of SGFL

CNG and LPG :

Rupantarita Prakritik Gas Company Limited (RPGCL), a company under Petrobangla, has been entrusted with the functions to manage, supervise and co-ordinate the use of CNG in Bangladesh. The extensive use of CNG has been playing an important role in reducing our dependence on imported liquid fuel for use in vehicles. Approximately 3.71 BCF of CNG is used every month from 550 CNG stations, which is about 5% of the total gas consumption in the country. Consequently,

the Government has been able to save about Tk. 11,550.0 million per month as foreign exchange in the sector against fuel import. With a view to curbing the import along with production of pollution-free fuel and to maximize the utilization of NGL obtained from the gas fields, the company also produced 5,936 metric tons of LPG by processing NGL in its fractionation plants at Kailashtila in Sylhet in 2016-17.



Liquefied Natural Gas (LNG) :

It is very obvious that the supply of natural gas from existing gas fields will be depleting in the coming years and Bangladesh needs to expand gas supply through diversified sources. Beside, present supply from existing gas fields is about 2,750 MMscfd against connected customers demand of about 3,500 MMscfd. This demand may increase up to 4,000 MMscfd in the year 2021/22, widening the shortfall between demand and supply. To minimize the demand-supply gap, the Government has invigorated its effort to enhance gas production along with initiatives to import considerable quantity of LNG. Two terminal use agreements (TUA) have been signed with Excelerate Energy Bangladesh Limited and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 floating storage and re-gasification unit (FSRU) at Moheshkhali approximately 90 kilometers south of Chattogram for supplying 500 MMscfd of LNG each and expected to be commissioned within 2018 and by early 2019 respectively. A long term (15 years) sales purchase agreement (SPA) has been signed with RasLaffan Liquefied Natural Gas Company Limited (3) of RasGas, Qatar for supplying LNG to these terminals. Construction of

30" x 91 km transmission pipeline from Moheshkhali to Anowara in Chattogram has already been completed. Construction of another 42" gas transmission pipeline from Anowara to Fauzdarhat is underway to evacuate RLNG/Gas after fulfilling the demand of Chattogram region. In addition, Petrobangla has started initial activities to install 2 land based LNG terminals, one at Kutubdia, Cox's Bazar and the other at Paira, Patuakhali area. Each of these 2 terminals will have a capacity of handling LNG equivalent to 1,000 MMscfd of gas and a techno-economic feasibility study is underway for installation of these 2 terminals. Other than these, memorandum of understandings (MoU)/Term Sheets have been signed with few institutions with the objects of installation of Land Based, Fixed Jetty Based/Gravifloat LNG Terminals and initial survey activities have been carried out. To import LNG, 2 separate MoUs have been signed with Oman Trading International (OTI); Pertamina (Indonesia) on G to G basis. Petrobangla has also signed separate MoUs with AOT (Switzerland) and Gunvor (Singapore) to import LNG.

Mining :

Petrobangla is also entrusted to develop mineral resources in the country. As the pioneer in subsurface mining in the country, Petrobangla has developed a coal mine at Barapukuria and a granite mine at Maddhapara of Dinajpur District

from which commercial production have been going on. The country's only granite mining company "Maddhapara Granite Mining Company Ltd." at Dinajpur has been extracting granite which is used mostly as construction material.



Coal :

Energy is the prime mover of economic development. At present, natural gas accounts for about three-fourths of the commercial energy used in the country. Excessive dependence on natural gas has contributed to sharp growth in its demand. But gas is depleting very fast. Given the uncertainty of sustainable supply of natural gas, it is imperative to diversify the primary energy sources in the country. And coal can be a major source of primary energy supply in this country in future. So far 5 coal fields namely Khalaspir in Rangpur, Barapukuria, Phulbari and Dighipara in Dinajpur and Jamalgonj in Joypurhat/Naogaon have been discovered with estimated reserve of more than 3 billion tons, out of which Petrobangla has developed the first coal mine of the country at Barapukuria. At present, Barapukuria coal mine is producing approximately 4,000-5,000 metric tons daily. In the FY 2016-17, total 1.16 million metric tons of coal was produced from this mine. Coal fired thermal power plants operated by Bangladesh Power Development Board (BPDB) consumes 85-90% of Barapukuria coal. Along with the existing 250 MW coal fired thermal power plant, BPDB added the 3rd unit of 275 MW capacity on February 2018. Remaining of the coal is being used in brick fields, boiler industry, steel re-rolling mills etc. According to power system master plan (PSMP), the demand of coal by 2030 will be 50 million tons/year approximately. To enhance the present production of Barapukuria coal mine, a project named Feasibility Study for extension of existing underground mining operation of Barapukuria Coal Mine towards the Southern and the Northern side of the basin without interruption of the present production has been undertaken. The project is in progress and scheduled to be completed by September 2018. It is to be

mentioned that from the present extension project of Barapukuria Coal Field it is expected to produce an amount of 1.2 million tons of Coal per year.

Petrobangla conducted a feasibility study in the 1st stage on Dighipara Coal Field which proves the prospect of this coal field and coal reserve has been estimated as 865 Million Metric Tons. In the 2nd Stage, a project named Techno-Economic Feasibility Study of Coal Deposit at Dighipara, Dinajpur has been undertaken to develop an underground coal mine at Dighipara with a target production of 3 million tons/yr. The project duration is 3 years and is scheduled to be completed by March 2019.

Petrobangla conducted a feasibility study for the extraction of coal bed methane (CBM) from Jamalganj coal field and the study has revealed that CBM production is not economically viable due to extreme gas under-saturation. The consulting firm of CBM study project in addition has recommended to conduct detail coal exploration study to develop underground mine at Jamalganj coal field, especially in the north-western 15 sq. km area where the upper coal seams occur at a comparatively shallower depth (600-800m). Petrobangla has a plan to conduct further comprehensive feasibility study in a view to develop an underground mine in the north western comparatively shallow area of Jamalganj coal field.

Presently, the government has been putting efforts to finalize a coal policy wherein the strategies and rules of coal extraction will be spelled out. It is expected that the upcoming coal policy will help achieve the targets and take appropriate steps for developing the prospective coal sector.



Granite :

Maddhapara Granite Mining Company Limited (MGMCL) at Dinajpur, the only underground mining company of this kind in the world, has been extracting granite which is used mostly as construction material. During the FY 2016-17, total 3,41,982.32 metric tons of granite was extracted from the mine and 5,06,971.05 metric tons was sold.



Gas Production in Bangladesh

Total Production upto December, 2017 was 14.24 TCF

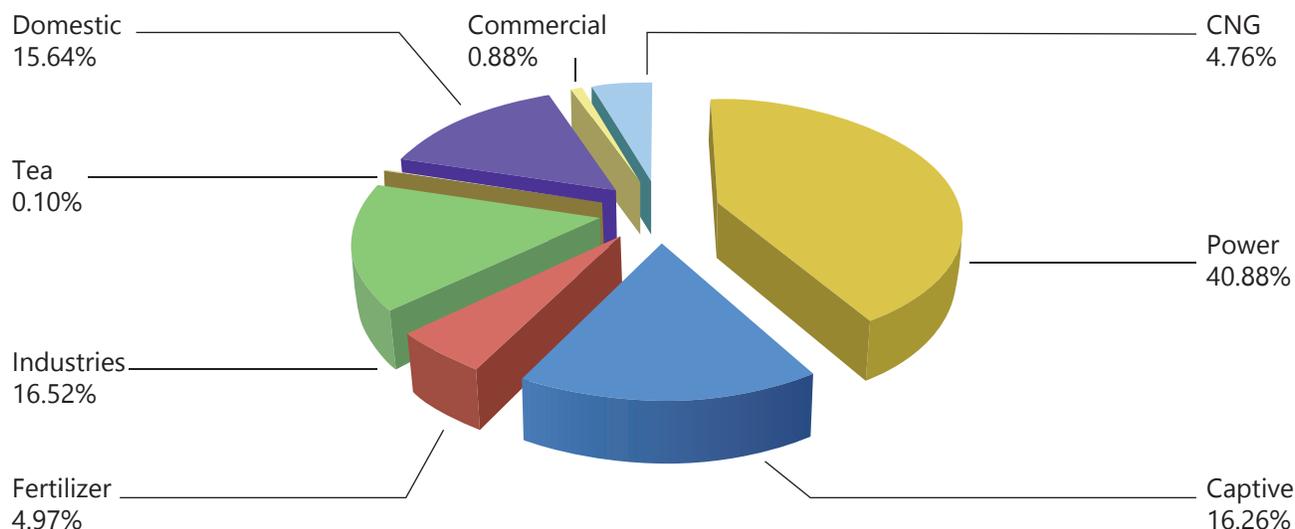


Marketing :

In keeping with the increased production, gas sales also showed an upward trend. By the end of 2016-17 financial year, total sales was 987.3 BCF, of which power sector (Grid + Non-Grid) consumed the largest part amounting to 403.6 BCF followed by fertilizer sector 49.1 BCF, captive power 160.5 BCF, industry 163 BCF,

domestic sector 154.4 BCF, and other non-bulk sectors 56.6 BCF. As in December, 2017 gas sector catered to more than 4.18 million customers of various categories. Most of this customers fall under domestic category; however, power sector remained the largest consumer.

Sector-wise Gas Consumption (2016-17)

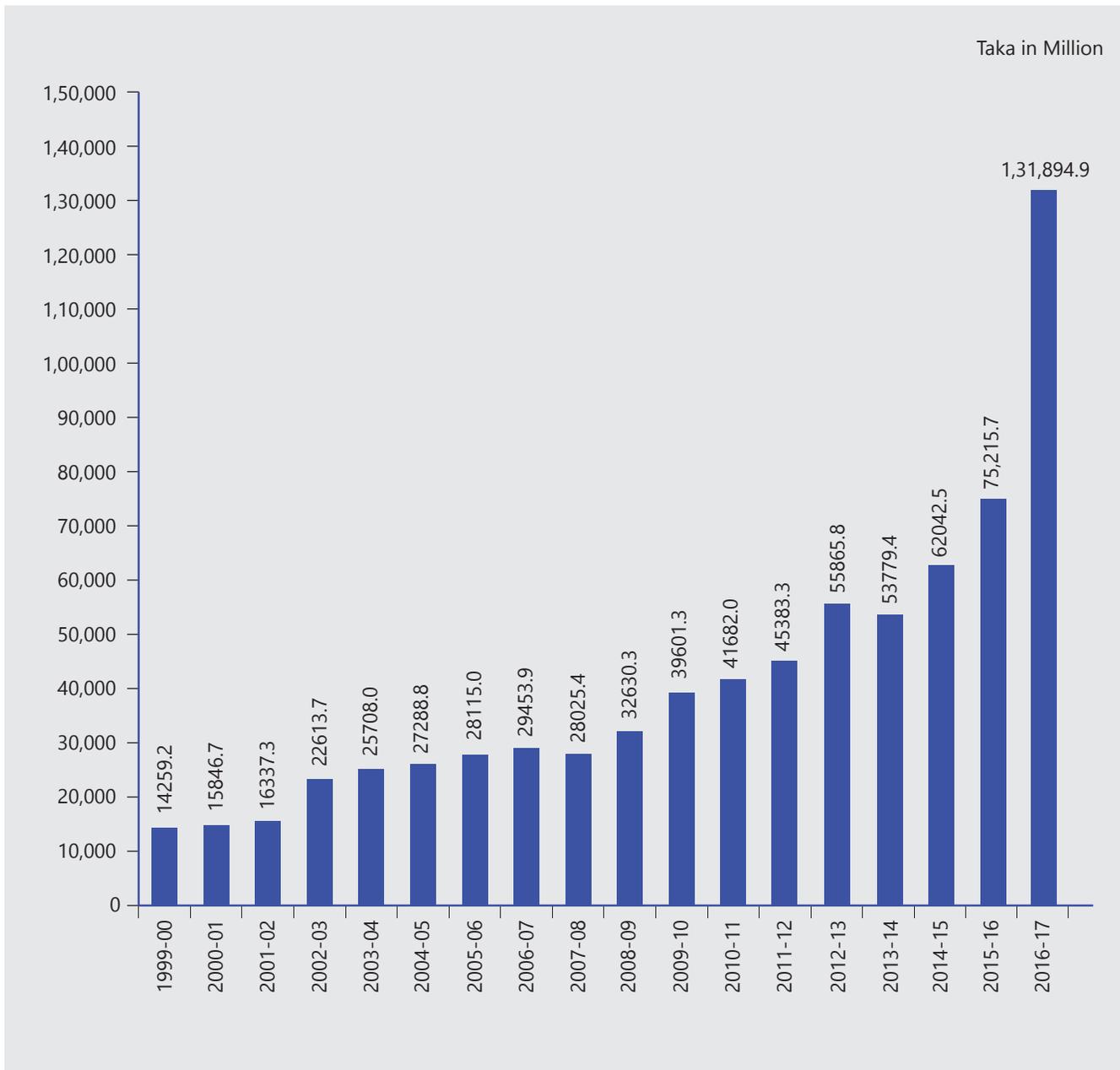


Financial :

The gross income in the FY 2016-17 by Petrobangla group from sales of gas, gas derived liquids, coal and granite stood at Tk. 3,70,014.84 million. After paying Supplementary Duty (SD) and VAT, net income was Tk. 2,76,297.78 million. Gross expenses, comprising of Tk. 93,717.06 million as SD and VAT along

with Tk. 2,75,912.31 million as cost of sales, amounted to Tk. 3,69,629.37 million. After paying income tax, net profit stood at Tk. 793.18 million. And after paying dividend of Tk. 8,813.64 million, net profit/(loss) turned out to be Tk. (8,020.46) million.

Payment to National Exchequer





Innovation Programme :

In order to provide better service to the people through establishing transparency and to ensure good governance in the public administration, Government has undertaken innovation programme. Pursuant to the government's circular in 2013, Petrobangla and its companies have already formed innovation teams. They are performing their assigned duties. To accelerate the speed of work, make the service easier and ensure accountability and transparency, Petrobangla has already implemented (a) SMS Notification to the

customer after gas bill payment and (b) Online inventory management system. In order to secure Petrobangla premises a Surveillance System has already been set up. Another innovative initiative, like Smart Card System for entry and exit will be installed in Petrocentre building to ensure punctuality and prevent unauthorized entry. Petrobangla encourages its employees, stakeholders and visitors to participate in developing innovative ideas for better services.

Energy Efficiency :

Petrobangla has implemented a TA project namely "TA to Review the Approach for Increasing the Efficiency of Gas Utilization in Certain Major Users" under JDCF financing for identifying opportunities to increase gas utilization efficiency of major users such as fertilizer industries, captive power plants, glass industries, steel re-rolling mill and other industrial establishments that use boilers through consultancy services.

Findings of the pilot programs : (i) Boiler Economizer Pilot Program (to fit an economizer to exhaust of the boiler to recover waste heat for heating the boiler feed water): gas consumption has been reduced by 4.4%. (ii) Generator Jacket Water Pilot Program (to recover heat from the generator jacket water for use as process heat):

gas consumption has been reduced by 14.4%. (iii) Reheating Furnace Recuperator Pilot Program (to install a recuperator to the exhaust of the furnace to pre-heat the combustion air) : gas consumption has been reduced by 9.10%. Excess air has been controlled by installing a butterfly damper at chimney. Excess air as well as oxygen controlled by these two dampers as a result furnace losses scale reduced significantly. Reduction of scale loss gives a dramatic result i.e. gas consumption was reduced by 35%.

The potential natural gas savings and greenhouse gas (GHG) emission reductions that could be achieved if the energy management opportunities (EMOs) proposed by the consultants are implemented.

Potential Gas Savings and Carbon Emissions Reduction

Energy Management Opportunities	From Audited Industries		Nationwide Projection			
	Possible Annual Gas savings (MMscf)	Savings to Consumption Ratio of Gas	Total Gas consumption (MMscfd)	Potential Gas savings		Carbon Emission reduction (Ton/Year)
				(MMscfd)	%	
Industrial Boilers	664	0.17	350	58	17	1,172,254
Captive Generator	1054	0.50	444	224	50	4,167,538
Re-heating Furnace	202	0.18	22	4	18	11,172
Total			816	286		5,350,964

Petrobangla proposed to include the EMOs suggested by the consultants in the Energy Efficiency and Conservation Master Plan to be prepared by Power Division to improve industrial boiler efficiency, captive power generator and industrial furnace as well as ensure energy conservation and the master plan has been prepared by the Power Division during the month of May, 2016.

Furthermore, Petrobangla has set up standard for gas utilization efficiency for industrial plants using appliances i.e. boiler, captive power generator and industrial furnace and also given directives to its gas distribution companies to maintain the standard. The findings of the pilot programs are being implemented by the distribution companies of Petrobangla.



Annual Performance Agreement :

Government of Bangladesh has launched a government performance management system (GPMS) for qualitative and quantitative evaluation of the performance made by public sector organizations. Under this system, a mechanism of annual performance agreement (APA) had been introduced from the FY 2014-15. APA between Energy and Mineral Resources Division (EMRD) and Petrobangla and individually between Petrobangla and its companies are being signed in the beginning of every FY. Regarding APA in the FY 2016-17, Petrobangla's achievement was 92.42%. In the FY 2017-18, APA was signed between EMRD and Petrobangla on 12 June, 2017 while between Petrobangla and its companies on 14 June, 2017. Reports of achievement regarding APA are being sent to EMRD on monthly, quarterly, half-yearly and yearly basis.



Signing of APA between Petrobangla and its companies



Right to Information :

To make provisions for ensuring transparency and accountability in all public, autonomous and statutory organizations and in other private institutions constituted or run by government or foreign financing, the Parliament of the People's Republic of Bangladesh passed the 'Right to Information Act, 2009 on 27 March, 2009. To ensure the effective implementation of the Act, the Government has already formulated rules and

regulations regarding preservation of information, publication of information, disclosure of information and access to information. According to right to information (RTI) Act, Petrobangla has specifically designated an officer. Besides, Petrobangla has taken initiatives to make its employees well acquaintance with the provision of the Act, Rules and regulations.

National Integrity Strategy :

As per government's decision and to implement national integrity strategy at the corporation level, time bound action plan for the FY 2017-18 has been prepared on 12 July, 2017. A committee has been formed to implement national integrity strategy in the corporation. Time bound action plan report of 1st

quarter was sent to EMRD on 24 September, 2017. An officer has been appointed as focal point for implementation of national integrity strategy. Major portion of the time bound action plan has already been implemented.

Human Resources Development :

As a part of the continuing efforts to upgrade its manpower resources to meet the changing need of the industry, Petrobangla and its companies pursue skill development and diversification programmes on a regular basis. Apart from conventional training opportunities for job-specific subjects, new areas of specialization are being inducted to cater to a new milieu of activity. In view of gradual deregulation of certain aspects of gas industry, introduction of private venture as sole or joint collaboration, taxation regime, tariff mechanism and overall reinvigoration of the sector, regular and frequent participations are ensured

by the widest possible selection of personnel in various training, workshops and seminars.

During the FY 2016-17, Petrobangla group arranged foreign training of different durations and disciplines for 783 personnel, while 27 participants were sent for attending seminars, 3 for attending workshops, 26 for attending conference, 16 for inspections and 28 for attending meetings. During the same period, local training was imparted to 435 personnel, while 33 were sent for attending seminars, 14 in workshops, 12 in conventions and 2 in symposiums held in the country.



Opening of Annual Sports-2017 of Petrobangla

Signing Ceremony for the Long Term Liquefied Natural Gas Sale and Purchase Agreement (SPA)

Between Ras Laffan Liquefied Natural Gas Company Limited (3) and Bangladesh Oil, Gas & Mineral Corporation

September 25th, 2017



Signing ceremony of LNG SPA between Petrobangla & RasGas

Information Technology :

Petrobangla has already joined national e-Government procurement (e-GP) portal and introduced e-Nothi system. Petrocentre, the head office complex has already been under LAN and Wi-Fi connection to ensure internet based activities and the bandwidth of internet has been increased. Petrobangla is going to introduce IP Phone system for reliable and direct communication. An Inventory System for Computer Accessories has been maintained. Petrobangla also maintain a mail server to ensure authentic, fast and digital

communication. Petrobangla is now connected in video-conferencing system of Bangla Govt. Net and taken a plan to establish video-conferencing system to the companies of Petrobangla. Website of Petrobangla is now in both Bangla and English version. Petrobangla has also undertaken an initiative to develop an ERP system to digitalize and automate all levels of services. Beside this Petrobangla and its companies trying to develop some e-services to ensure that the stakeholder avail it smoothly.

Grievance Redress System :

Grievance redress system (GRS) provides a way to reduce risk for public service delivery, an effective avenue for expressing concerns and achieving remedies for public, and promote a mutually constructive relationship. The aim of GRS is to develop a range of procedures to facilitate airing, and resolution of grievances in a non-threatening, supportive environment. Under the Government Performance

Management System, Energy and Mineral Resources Division and Petrobangla have signed an annual performance agreement (APA), which includes grievance redress system. An officer has been appointed as focal point for implementation of grievance redress system in Petrobangla. Activities of Petrobangla and its subsidiaries under GRS are being regularly monitored and evaluated.



Production Sharing Contracts (PSC) :

Under its charter, Petrobangla has the right to enter into petroleum agreements with any international oil company (IOC) for the purpose of any petroleum operations. One of Petrobangla's major activities consists of organizing, supervising and administering

the production sharing contracts (PSC) it enters into with the IOCs. Major block bidding and awards took place under the 1974 offshore bidding round, 1993 bidding round, 1997 bidding round, 2008 offshore bidding round and 2012 offshore bidding round.

1974 Offshore Bidding Round

Bidding was limited to near offshore areas and 6 of the then 7 offshore blocks were contracted with the following IOCs :

- **Atlantic Richfield (ARCO);**
- **Ashland Oil;**
- **Union Oil;**
- **Canadian Superior;**
- **BODC (JNOC/JAPEX JV); and**
- **Naftaplin (Yugoslav oil company INA).**

These companies conducted 31,069 km of marine seismic surveys, drilled 7 wells, discovered the Kutubdia Gas Field in 1977 and all winded up by 1978.

1993 Bidding Round

At that time, 23 onshore and offshore blocks were offered. Of these, 8 blocks were awarded to the following 4 IOCs :

- Occidental (OXY) for blocks 12, 13 and 14 (Onshore); later transferred to Chevron which is producing from Bibiyana, Jalalabad and Moulvibazar fields;
- Cairn Energy for blocks 15 (Onshore) and 16 (Offshore); Cairn discovered Sangu gas field in 1996 which produced until 2013. Blocks 15 and 16 have now been relinquished, except for the ring-fenced offshore Magnama structure which was transferred to Santos; After drilling two exploratory wells in Magnama without success, the ring fenced area has been relinquished in mid 2017 by Santos.
- Oakland-Rexwood for blocks 17 and 18 (Offshore); transferred to CFP Total who has relinquished both blocks;
- United Meridian Corporation (UMC) for block 22 (Onshore); relinquished;

PSCs in the 1980s

In the interim, 3 PSCs were concluded. Of these, 2 PSCs were concluded with Shell Oil Company for the Chittagong Hill Tracts (later Block 22) and North West Bangladesh (later block 23). Shell conducted seismic surveys, and drilled 2 wells at Sitapahar and Salbanhat without any success, and relinquished their concessions. One PSC was concluded with Scimitar Exploration of Canada for exploration of oil in the Surma basin (the area later became Block 13). Scimitar only discovered gas in the Jalalabad field and relinquished the field.



Sangu Platform in the Bay of Bengal

1997 Bidding Round

4 blocks were awarded as follows :

- Tullow/Chevron/Texaco/BAPEX for block 9 (Onshore); Discovered Bangura Gas Field and now producing, operated by Tullow.
- Shell/Cairn/BAPEX for blocks 5 and 10 (Onshore); relinquished in totality; and
- Unocal/BAPEX for Block 7 (Onshore); relinquished in totality.

During this bidding round, the provision for a mandatory 10% carried interest for BAPEX was introduced and implemented for all blocks.

2012 Offshore Bidding Round

Following the delimitation of the maritime boundary between Bangladesh and Myanmar by ITLOS in March, 2012, Petrobangla reshaped the blocks considering the new boundaries and announced a bidding round in December, 2012.

a) Shallow Water Bids :

Under this round, the following 3 shallow water PSCs have been signed :

- ONGC Videsh Ltd. (OVL), Oil India Ltd. (OIL) and BAPEX for blocks SS-04 and SS-09; and
- Santos, KrisEnergy and BAPEX for block SS-11.

Operating Fields under PSC in 2016-17

Currently, 4 gas fields are being operated by IOCs under PSC. Of them 3 fields, namely Bibiyana, Jalalabad and Moulvibazar Gas Fields are being operated by Chevron and Bangora Gas Field by Tullow/KrisEnergy.

Bibiyana : Bibiyana field is now the largest supplier of gas to the national grid, delivering around 1,200 MMscfd gas and 9,500 bbl/day condensate from 26 wells. The design capacity of the process plant is 1,350 MMscfd.

Jalalabad : Jalalabad Gas Field has 7 wells including 3 additional new wells drilled at 2015. Currently, total production from this field is around 270 MMscfd gas and 2,000 bbl/day condensate.

Moulvibazar : Moulvibazar is producing 34 MMscfd (down from 110 MMscfd) from 5 wells while the installed process plant capacity is 125 MMscfd. As production is now declining, the

2008 Bidding Round

It attracted some bids, but the ensuing maritime boundary dispute with Myanmar in most of the blocks created a stalemate. However, the Government succeeded in signing a PSC for 2 deep sea blocks on 16 June, 2011 with ConocoPhillips for DS-10 and DS-11. ConocoPhillips conducted total 5,750 lkm of 2D seismic survey in 2012 and 2013. After interpretation, ConocoPhillips identified few prospects. However, ConocoPhillips relinquished the blocks considering their investment not feasible.

b) Deep Water Bid :

Three proposals were received for blocks DS-12, 16 and 21 Jointly from ConocoPhillips & Statoil. However, no PSC was signed for any deep sea block under this bidding round as they asked to improve the terms and condition of the Model PSC.

operator is investigating ways to enhance or at least sustain present rate of production.

Bangura : The Bangora field started producing in 2006, peaking at 120 MMscfd in 2010 and thereafter declining to 100 MMscfd from 4 wells. Two development wells were planned to drill to sustain the rate of production. In December 2016 one well has been drilled successfully.

PSCs have resulted in addition of significant sources and supplies of gas in the country. Productions from the PSC blocks have increased significantly over the last few years. The total gas production from the PSC operations during FY 2016-17 was around 582 BCF. Since the beginning of PSC operations in Bangladesh in the 1970s, a total of 28 exploration wells have been drilled resulting in the discovery of 6 gas fields.



Preparation for future Offshore Bidding Round :

Bangladesh's maritime victory over Myanmar and India have opened the door to immense possibilities for the nation. Our neighbors are already exploiting their subsea energy resources with rich dividends. High investments are required for deep sea exploration and production and countries successful in attracting foreign investments for offshore exploration have been

quick to recognize, address and accommodate this issue in their model PSC offerings. We have to make it attractive for IOCs to explore in our waters. Only intensive offshore exploration activity can enable Bangladesh to tap the huge reservoirs of riches trapped beneath our seas. To achieve these objectives up gradation of model PSC is in progress.



PSC signing for block DS-12 with POSCO DAEWOO Corporation

Current and upcoming exploration activities:

Initial exploration activities are in progress in blocks SS-04 and SS-09. In the 1st phase ONGC Videsh Ltd. (OVL) has completed 3,008 lkm of 2D marine seismic survey data acquisition. In the 2nd phase OVL carried out 2,520 lkm 2D OBC survey. By January, 2019 OVL will drill 1 exploratory well in block SS-04 and 2 exploratory wells in block SS-09.

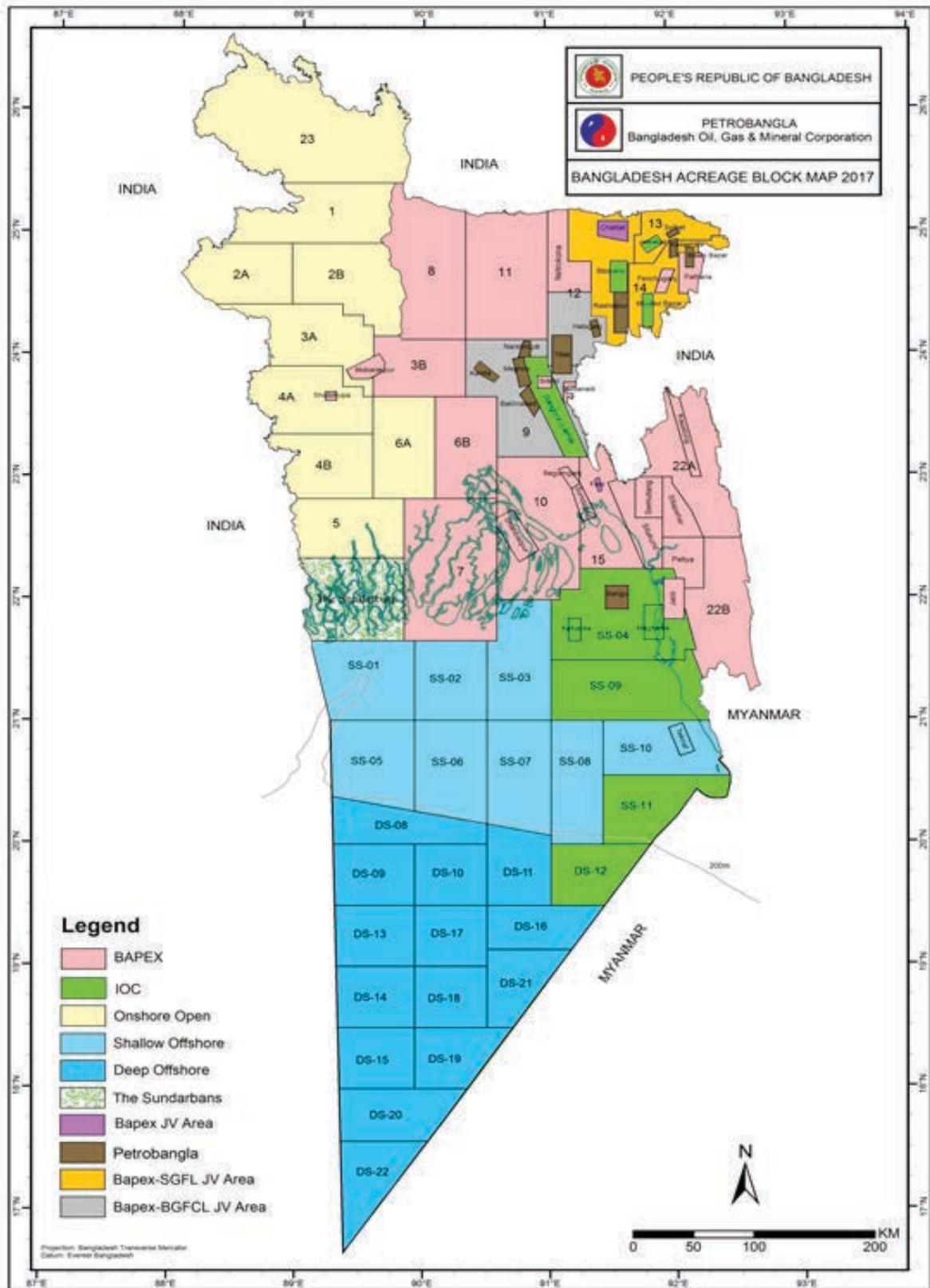
In block SS-11 Santos conducted 3,050 lkm of 2D seismic survey in 2015 Interpretation and integration of the data sets have been completed and submitted the technical report to Petrobangla. They are going to conduct 300 sq. kilometers of 3D seismic survey in the first quarter 2018. By February, 2019 Santos will drill 1 exploratory well in block SS-11.

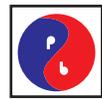
Petrobangla planned to undertake 2D Non-Exclusive Multi-Client Seismic Survey in the offshore area of Bangladesh. The objective of the survey is to provide oil and gas industry with 2D Non-Exclusive Multi-Client

Seismic data of the offshore areas in order to help with basin evaluation, prospect generation and robust bid round participation. Bids have been invited, received and evaluated. Government approval is now awaiting for signing the contract with successful bidder.

The GOB has given the highest emphasis on rapid industrialization and modernization of the country. Implementation of this program requires increased supply of commercial energy. Accordingly, under "Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010", a PSC was signed for deep sea block DS-12 with POSCO DAEWOO Corporation in March, 2017. Initially POSCO DAEWOO Corporation carried out 3,560 lkm 2D seismic survey. Five Leads have been identified in this block, among the 5 Leads 2 (two) Leads are very potential. POSCO DAEWOO Corporation is planning to conduct 2,000 Sq. kms of 3D Seismic Survey in this block by November 2018.

Bangladesh Block Map, 2017

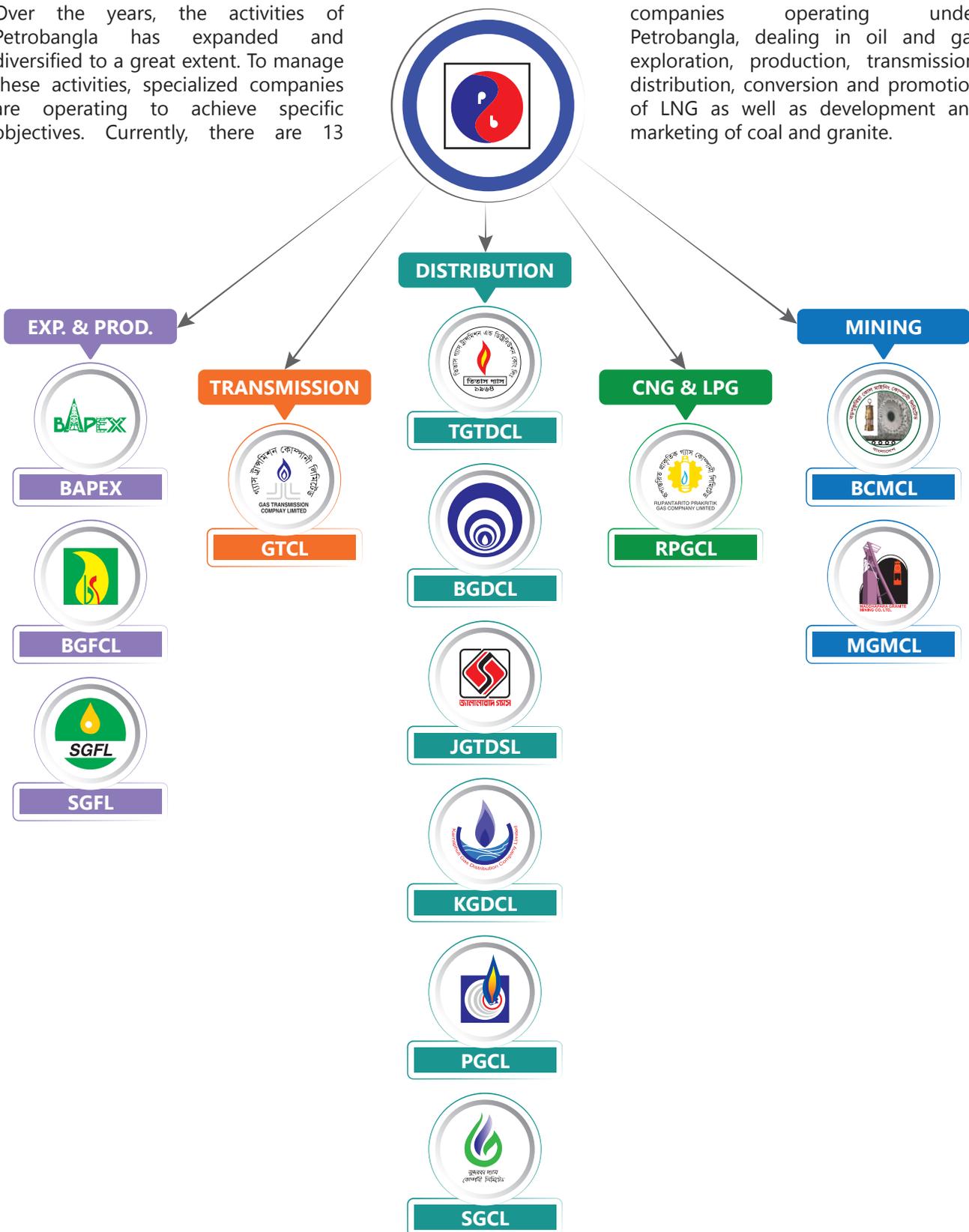




Companies of Petrobangla

Over the years, the activities of Petrobangla has expanded and diversified to a great extent. To manage these activities, specialized companies are operating to achieve specific objectives. Currently, there are 13

companies operating under Petrobangla, dealing in oil and gas exploration, production, transmission, distribution, conversion and promotion of LNG as well as development and marketing of coal and granite.





Bangladesh Petroleum Exploration and Production Company Limited (BAPEX)

BAPEX was established in 1989, as the national exploration company by abolishing the Exploration Directorate of Petrobangla with a view to accelerating oil and gas exploration in the country. The main functions of BAPEX were to undertake geological and geophysical surveys, and drilling operations for the purpose of exploring oil and gas in the country. The work of exploring oil and gas in the public sector, now undertaken by BAPEX, was originally initiated in 1964 under the aegis of the then OGDC of Pakistan. After independence in 1971, exploration works were conducted by OGDC (Bangladesh) and Oil Exploration (Toilo Sandhani) till 1974 and continued under Exploration Directorate of BOGMC (Petrobangla) for the next 15 years, after which, in 1989, BAPEX emerged as a company. Its objective was to undertake exploration works for oil and gas within the country. In 2000, the Government granted BAPEX the permission to go into production aside from exploration activities to increase its financial capability. At present, BAPEX is running its production in addition to continuing the activities of exploring oil and gas onshore within the country.

Aside from exploring oil and gas and drilling, BAPEX is now producing nearly 105 million cft of gas daily from Saldanadi, Shahbazpur, Fenchuganj, Semutang, Begumganj, Shahjadpur-Sundalpur, Srikail Gas Fields. Recently drilling of one successful gas well has been completed in Bhola as named Shahbazpur East-1 and another well drilling as named Bhola North-1 was continuing with strong indication of new gas reserve there. As a part of increasing the gas production from these 2 wells, necessary technical documentation for procurement of process plants and construction of line pipe have been finalized. By the year 2018, about 25 Million cft gas production will be added to national economy from Shahbazpur Gas Field.

BAPEX has drilled 8 exploratory wells, out of which 5 gas fields have been discovered. Since its inception, BAPEX has successfully completed work-over operations of 27 wells, drilling of 8 exploration wells and 21 development wells. Experience of exploring oil and gas gathered over a period of 27 years has enhanced the technical capacity of BAPEX. New gas reserves

to be explored through the ongoing drilling works will help implement the Vision 2021 by mitigating the energy crisis of the country.

Under Bangladesh Offshore Bidding Round, 2012, 2 production sharing contracts (PSCs) have been concluded with ONGC Videsh Ltd. (OVL) and Oil India Ltd. (OIL) for shallow-sea blocks SS-4 and SS-9, and 1 PSC with Santos Sangu Field Ltd. and Kris-Energy Bangladesh Ltd. for shallow-sea block SS-11. The Government of Bangladesh has nominated BAPEX as stakeholder carrying 10 percent interests for these blocks. A joint operating agreement was signed with Santos Sangu Field Ltd and Kris-Energy Bangladesh Ltd on 18 June, 2015 to create an opportunity for BAPEX to participate in offshore gas blocks. And signing of a joint operating agreement with ONGC Videsh Ltd. (OVL) and Oil India Ltd. (OIL) is in the offing.

During the FY 2016-17, total income of BAPEX stood at Tk. 2,870.37 million, of which Tk. 1,179.02 million (excluding SD and VAT) earned from sales of natural gas and condensate of own gas fields, Tk. 534.39 million received from different gas marketing companies of Petrobangla as "BAPEX Margin" on gas sales and Tk. 1,156.96 million earned from PSC Block-9, interest income and income from other sources. Against this income, total expenditure stood at Tk. 5,484.43 million during the year. The net loss after tax of the company stood at Tk. 2,633.29 million. During the FY, the revenue reserve stood at Tk. (493.19) million after prior years adjustment of Tk. 2.96 million and transfer to profit and loss appropriation account accumulated revenue of Tk. 2,137.14 million. The Company paid Tk. 2,762.2 million to the Government Exchequer during FY 2016-17.

Considering its overall activities, for BAPEX, 2016-17 fiscal was a year of making efforts for achieving success overcoming the setbacks. BAPEX has formulated a time-bound action plan with a view to accelerating the exploration of oil and gas and augmenting production by 2021. The overall support and cooperation of the present government for turning BAPEX into a technically and financially strong institution will continue to add momentum to its operation in the days ahead and help reach its target.



Vision 2021 of BAPEX :

Hon'ble Prime Minister of the People's Republic of Bangladesh, expressed her deep interest in strengthening of BAPEX, the sole state-owned petroleum exploration company in different occasions, with a view to trimming down the dependence on IOCs. To materialize this objective, as per her instruction BAPEX adopted the strategy of time-bound action plan.

Pursuant to the Hon'ble Prime Minister's instruction, BAPEX has undertaken the following work-plan to reach the goal of Vision 2021 :

- Geological survey : 570 lkm
- 2D Seismic survey project : 12,800 lkm
- 3D Seismic survey project : 2,840 sq. km
- Drilling of exploratory wells : 53
- Drilling of development wells : 35 and workover: 20
- Possible enhancement of gas production: Additional 943 (BAPEX 812) MMscfd

On-going Projects during FY 2016-17 are :

Procurement of 1 workover Rig with supporting equipment for BAPEX; 3D Seismic project of BAPEX; 2D Seismic project of BAPEX; Rupkolpo-1 Drilling project: 3 Exploration wells (Srikail East-1, Salda North-1 and Hararganj-1) and 2 Development wells (Srikail North-2 and Koshba-2); Rupkolpo-2 Drilling project: 4 Exploration wells (Salda South-1, Semutang South-1, Batchia-1 and Salda East-1); Rupkolpo-3 Drilling project: 4 Exploration wells (Koshba-1, Madarganj-1, Jamalpur-1 and Shoilokupa-1); Rupkolpo-4 Drilling project: 2 Exploration wells (Shahbazpur East-1, Bhola

North-1) and 2 Workover wells (Shahbazpur-1 and 2); Procurement of 1 drilling and 1 workover rig with supporting equipment for BAPEX; Rupkolpo-5 Drilling Project: 2 Exploration wells (Srikail North-1, Mubarakpur South East-1), 1 Appraisal cum development well (Begumganj-4) and 1 workover (Begumganj-3); and Rupkolpo-9: 2D Seismic project (approximately 3,000 lkm 2D seismic survey over BAPEX Block no. 8 and 11 including data acquisition, processing and interpretation) and 2D Seismic survey over exploration Block 3b, 6b and 7b.





Bangladesh Gas Fields Company Limited (BGFCL)

Bangladesh Gas Fields Company Limited (BGFCL) is the largest state-owned natural gas production company in the country. The company is the successor to the Shell Oil Company established on 30 May 1956. After independence of Bangladesh, on a far-sighted decision of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, 5 gas fields of the erstwhile Pakistan Shell Oil Company Limited (PSOC), namely Rashidpur, Kailashtila, Titas, Habiganj and Bakhrabad were brought under state ownership on 9 August, 1975 by purchasing at a minimal price. Accordingly, Shell Oil Company was renamed as Bangladesh Gas Fields Company Limited and management of Titas, Habiganj and Bakhrabad was entrusted to BGFCL. It is a public limited company registered under Companies Act, 1994 (Revised) and also is a company of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla).

Presently, BGFCL owns 6 gas fields - Titas, Habiganj, Bakhrabad, Narsingdi, Meghna and Kamta. This company continued gas production from 5 gas fields out of its 6 fields in the FY 2016-17. At present, daily on an average 850 million cubic feet gas is being supplied to the national grid from 42 wells of 5 producing fields. BGFCL shares about 31% of country's total gas production. During 2016-17 FY, 301.32 BCF of gas and 177,919 barrels of condensate, extracted as by-product from the gas, were produced by the company. There are 2 fractionation plants at Titas Gas Field and 1 at Bakhrabad Gas Field. The recovered condensate from Titas, Habiganj and Narsingdi Gas Fields of BGFCL and Beanibazar Gas Field of SGFL, Bangura of Tallow, Rupgonj and Srikail of BAPEX are fractionated into MS (Petrol) and HSD (Diesel) in 2 fractionation plants of Titas Gas Field. The recovered condensate from Bakhrabad and Meghna Gas Field of BGFCL and Bangura Gas Field of Tallow and Saldanadi, Srikail and Semutang Gas Field of BAPEX is fractionated into MS (Petrol) and HSD (Diesel) in the fractionation plant of Bakhrabad Field. The products, MS and HSD are delivered to Padma Oil Company Limited and Meghna Petroleum Limited regularly for marketing.

As per latest report of Petrobangla, total recoverable gas reserve of 6 fields under the company is about 12.252 TCF, out of which 7.728 TCF or about 63.08 percent was recovered till 30 June, 2017.

With a view to mitigating the ongoing gas crisis, BGFCL has kept up its relentless effort to ensure uninterrupted gas supply and implemented various development projects with the financial assistance

of GoB and gas development fund (GDF) in addition to various development partners such as ADB, JICA etc. Under the projects, 2 new wells (Titas-23 and 24) have been drilled and workover of 4 existing wells (Titas-1, 2, 5 and 10) and installation of 1 gas process plant having capacity of 75 MMscfd have also been completed. At present, these 6 wells are producing about 134 MMscfd gas which is being supplied to national grid.

Under 3-D seismic survey project, 335 sq. km field level survey over Titas structure and 210 sq. km field level survey over Bakhrabad structure have been completed. In the survey report drilling of 11 new wells at Titas gas field and drilling of 3 new wells at Bakhrabad gas field have been proposed. Among the wells, 6 wells (Titas-18, 23, 24, 25, 26 and 27) at Titas gas field and 1 well (Bakhrabad-10) at Bakhrabad gas field have been drilled. About 106 MMscfd from Titas well nos. 18, 23, 24, 25, 26 and 27 and Bakhrabad well no. 10 are being supplied to national grid. To reduce gas seepage problem, a separate project consisting of workover of 5 wells (Titas-1, 2, 5, 10 and 11) at Titas gas field was undertaken with GDF finance and workover of all 5 wells have been successfully completed. Due to gradual decline of wellhead pressure of wells at Titas Location- C and Narsingdi gas fields and hence for supplying gas from producing wells in maintaining with grid line pressure, a project funded by JICA was undertaken for installation of compressors and another project funded by ADB has been undertaken in order to install compressors at Location-A of Titas gas field. Besides, a project with GDF finance has been undertaken for workover of 7 wells (Titas-6, 7, 9 and 13, Narsingdi-1, Bakhrabad-1, Habiganj-1) at Titas, Habiganj, Narsingdi and Bakhrabad gas fields. Gas production from Titas well no. 15 was stopped during pressure survey conducted in the well and this well has been brought into production with the assistance of BAPEX.

The Company earned a gross revenue of Tk. 37,292.4 million and a pre-tax profit of Tk. 3,927.8 million during the FY 2016-17. The company also paid TK. 32,251.7 million to the national exchequer in the form of SD, VAT, DSL, Dividend & Income Tax during the year.

In the company, e-tendering has already been introduced under e-response system, web mail is being used for official communications through company's own web site and necessary steps along with training program have been taken to introduce e-filling.



Sylhet Gas Fields Limited (SGFL)

Sylhet Gas Fields Limited is the second largest state-owned gas producing company in the country. It used to be operated in the name of Pakistan Petroleum Ltd. (PPL) during pre-independence days. After independence, the company ran its business operations in the name of "Bangladesh Petroleum Limited" until a company in the name and style of "Sylhet Gas Fields Limited" was formed, and incorporated under Companies Act on 8 May, 1982 with a view to taking over from the Government of Bangladesh all gas fields, installations, production facilities, all other assets at Sylhet and Chhatak fields or elsewhere in Bangladesh owned by Pakistan Petroleum Ltd. (PPL).

The company, under its umbrella, currently operates Sylhet (Haripur), Kailashtila, Rashidpur and Beanibazar Gas Fields. A total of 14 wells (2 at Sylhet, 5 at Kailashtila, 5 at Rashidpur and 2 at Beanibazar) are presently on stream which produce an average of 141 MMscfd. The produced gas is supplied to Jalalabad, Bakhrabad, Pashchimanchal and Karnaphuli gas distribution companies franchised areas. SGFL shares about 5% of country's total gas production. In the FY 2016-17, SGFL produced 51.3 BCF of gas and 194,517 barrels of condensate and 156,494 barrels of natural gas liquids (NGL) from its own fields. The company also produced 880,393 barrels of finished petroleum products - petrol, diesel and kerosene-by fractionating condensate from its own fields and Bibiyana Gas Field operated by Chevron.

The company has been implementing various development projects with the objective of diversifying its activities and enhancing company's revenue income. The ongoing projects include: (i) Installation of a 4000-bbl/day capacity condensate fractionation plant (CFP) at Rashidpur, (ii) Installation of a 3000-bbl/day catalytic reforming unit (CRU) at Rashidpur to convert Petrol into Octane, (iii) 3-D Seismic Data and Report Review, (iv) Drilling of new wells at Sylhet, Kailashtilla and Rashidpur and (v) Work-over of 3 wells at Kailashtilla and Rashidpur.

During the FY 2016-17, the company earned an amount of Tk. 4,643.4 million from the sales of 51.24 BCF of gas and Tk. 10,719.1 million from the sales of 1,237,502 barrels of finished liquid petroleum products such as petrol, diesel, kerosene, NGL and condensate. Company earned pre-tax profit to the tune of Tk. 4,783.2 million during the year and paid Tk. 5,961.7 million as supplementary duty and VAT, Tk. 1,684.3 million as income tax, Tk. 1,400.0 million as dividend and Tk. 67.5 million as DSL. The total contribution by the Company to the Government exchequer in the financial year stood at Tk. 9,113.5 million which was 59.32% of the total income from sales.

Sylhet Gas Fields Limited has been adjudged as the top-most VAT paying organization in the production sector at national level for the last consecutive 5 years up to FY 2016-17 and has been rewarded by the National Board of Revenue. The company has already established e-tendering procedure for inviting bid.



Metal Seal switching valve maintenance of De-hydration Tower at MSTE Plant of SGFL



Gas Transmission Company Limited (GTCL)

Gas Transmission Company Limited (GTCL) was incorporated on 14 December, 1993 with the objectives of (i) centralized operation and maintenance of national gas grid; and (ii) expanding of national gas grid and as required, ensuring balanced supply and usage of natural gas in all regions of the country.

During the FY 2016-17, GTCL transmitted in total 770.64 BCF of gas, 0.44% higher than the previous year, delivering 520.17 BCF, 88.47 BCF, 85.10 BCF, 44.46 BCF, 29.93 BCF and 2.51 BCF to franchise areas of Titas, Bakhrabad, Karnaphuli, Jalalabad, Paschimanchal and Sundarban gas distribution companies respectively. The Company transported a total of 2,058,781 barrels of condensate through its 175 km long North-South condensate pipeline during the year, which was 54.12% higher than the previous year.

Ongoing projects in the year 2017 were : (i) Installation of compressor stations at Ashuganj and Elenga under natural gas access improvement project (NGAIP), (ii) Construction of 30" x 60 km Bakhrabad-Siddhirganj Gas Transmission Pipeline Project, (iii) Construction of 30" x 61 km gas transmission pipeline for Gas Transmission Capacity Expansion-Ashuganj to Bakhrabad Project, (iv) Rehabilitation and expansion of existing supervisory control and data acquisition (SCADA) system of national gas grid under GTCL (Component B of Bheramara

Combined Cycle Power plant Development Project), (v) Construction of 30" x 66 km Dhanua-Elenga and West Bank of Bangabandhu Bridge-Nalka Gas Transmission Pipeline Project, (vi) Construction of 30" x 91 km Moheshkhali-Anowara Gas Transmission Pipeline Project, (vii) Construction of 36" x 181 km Chattogram-Feni-Bakhrabad Gas Transmission Pipeline Project, (viii) 42" x 30 km Anowara-Fouzdarhat Gas Transmission Pipeline Project and (ix) 42" x 79 km Moheshkhali-Anowara Gas Transmission Parallel Pipeline Project.

Up-coming projects are : (i) Construction of Kutumbapur-Meghnaghat 30" x 45 km Gas Transmission Pipeline, (ii) Moheshkhali Zero Point 42" x 7 km Gas Transmission Pipeline Project, (iii) Bogura-Rangpur-Syedpur 24" x 150 km Gas Transmission Pipeline Project, (iv) Construction of Bhomra, Satkhira to Khulna CGS 36" x 60 km Gas Transmission Pipeline, (v) Construction of Langolband-Mawa and Janjira-Gopalganj-Khulna 30" x 175 km Gas Transmission Pipeline, (vi) Payra Seaport-Khulna 36 x 150 km Gas Transmission Pipeline Project, (vii) Construction of 2nd Bangobandhu Bridge (Railway) Section 36" x 12 km Gas Transmission Pipeline and (viii) Moheshkhali, Cox's Bazar-Horipur, Dhaka 48"/52" x 360 km Gas Transmission Pipeline.



Siddhirganj RMS under Bakhrabad-Siddhirganj gas pipeline project of GTCL



LNG and transmission pipeline : With the object of reducing present gap between demand and supply of gas in the country, the Government has taken initiatives to import considerable quantity of liquefied natural gas (LNG). Bangladesh eyes starting LNG imports from 2018 and is making concerted efforts to move forward with the LNG import infrastructure. For transmitting the Regasified LNG from FSRU at Moheshkhali to national grid, it is required to develop infrastructure. Two FSRUs at Moheshkhali are being developed and are expected to be commissioned within 2018 and by early 2019. In this regard, GTCL has already constructed 30" x 91 km transmission pipeline from Moheshkhali to Anowara, Chattogram with a view to transporting Regasified LNG to Dhaka region, construction of 42" x 30 km gas transmission pipeline from Anwara to Fouzdarhat and construction of 36" x 181 km Chattogram-Feni-Bakhrabad transmission pipeline are underway. For supplying of enhanced quantity of Regasified LNG, construction of parallel 42" x 79 km transmission pipeline from Moheshkhali to Anowara and construction of 42" x 7 km transmission pipeline from Moheshkhali Zero

Point to Moheshkhali CTMS are also underway.

The company earned an amount of Tk. 4,545.4 million as revenue and Tk. 433.2 million as pre-tax profit and contributed an amount of Tk. 2,721.5 million to Government Exchequer during the FY 2016-17.

Network Analysis at Steady State are being conducted for all existing transmission pipelines under the company to quickly and accurately determine the pipeline pressures and pipeline transmission capacities by using Pipeline Studio Software. Under supervision of the Cabinet Division and assistance of the Access to Information (a2i) program of the Prime Minister's Office for creating Digital Bangladesh, the company's e-file management has been activated on 27 March, 2017. All tender notices and important information are being published in the Company's own website regularly. All tender of the company related to procurement of goods and services are being completed through the national e-Government procurement (e-GP) portal for ensuring wide participations and establishing equal rights of all bidders and maintaining procurement skill, transparency and accountability.



The Padma River crossing by HDD Method of GTCL



Titas Gas Transmission and Distribution Company Limited (TGTDC)

The discovery of a huge gas field on the bank of the Titas River in Bhramanbaria in 1962 created a new horizon for the utilization of natural gas. Titas Gas Transmission and Distribution Company Limited (TGTDC) was established on 20 November, 1964. The company began its commercial operation with the commissioning of gas supply to Siddhirganj Thermal Power Station on 28 April, 1968 after construction of 14" x 93 km Titas-Demra gas transmission pipeline by the then East Pakistan Industrial Development Corporation. In October, 1968 the first domestic natural gas connection was provided to the residence of renowned litterateur Shawkat Osman.

In the beginning, 90% of its shares belonged to the then Pakistan Government, and Pakistan Shell Oil Company owned the rest. Under the Nationalisation Order of 1972, all the Government-owned shares of the company were vested in the Government of Bangladesh (GoB). In accordance with an agreement signed between Shell Oil Company and GoB on 9

August, 1975 the ownership of the remaining 10% shares was transferred to the GoB through Petrobangla in exchange for a lump-sum payment of £ 1,00,000. After the independence of Bangladesh in 1971, the company started its journey as a company of Petrobangla with an authorized and paid up capital of Tk. 17.8 million. At present, the authorized and the paid up capitals of the company are Tk. 20,000.0 and Tk. 9,892.2 million respectively. Presently, Petrobangla holds 75% shares of this company while private share holders hold 25% of shares.

The main objective of the company is to supply natural gas to customers of different categories under its franchise area and thereby reduce dependency on imported liquid fuel. Towards this end, the company has to construct, operate and maintain pipelines, stations and associated facilities. Currently, the company distributes gas in the districts of Dhaka, Narayanganj, Narsingdi, Munshiganj, Manikganj, Gazipur, Tangail, Mymensingh, Jamalpur, Sherpur, Netrokona and Kishoreganj.



Intake Metering Station at Gazipur of TGTDC



Presently, total length of pipeline owned by the company is 13,056.42 km including 21.20 km built during the FY 2016-17. The total number of customers of the company was 2,023,005 as on 30 June, 2016 which rose to 2,734,534 in June, 2017. Bulk customers of the company include 3 fertilizer plants, 7 government and 36 private power stations. The company hogs about 61% of natural gas market share in Bangladesh.

During FY 2016-17, total 600.77 BCF of gas was sold and a sales revenue of Tk. 1,24,269.6 million was earned and the total revenue was Tk. 1,25,510.5 million including meter rent and surcharge. Compared to previous year's revenue of Tk. 1,13,171.0 million, the growth rate in revenue income for the year under review was 10.90% higher. During FY 2016-17 a sum of Tk. 1,18,909.0 million (including arrear revenue) was realized against the revenue income of Tk. 1,25,510.5 million, which was Tk. 6,601.5 million less than the receivable. The company earned a net profit before tax and a net profit after tax of Tk. 6,813.7 million and Tk. 5,064.8 million respectively. The company paid Tk. 5,272.2 million to the Government exchequer during FY 2016-17. During the year the earnings per share (EPS) was Tk. 5.12.

Modern and state of the art web-based total integrated Computer System has been set up to boost up all the functions of the company to facilitate improved customer services which includes – automatic updating of customer ledger if bill payment is made through banks having online banking facilities; informing registered customers about their gas bills through SMS; obtaining online update about payment and dues; complaining through online facility; e-mail facility through own web-domain; processing of annual/half yearly financial reports and other related information through integrated accounting software.

The company has launched a dedicated call center to serve customers. A project is being implemented for installation of 2,00,000 pre-paid meter for the domestic customers of Dhaka metropolitan area. The company has already established e-tendering procedure for inviting bid. The company has 3 emergency gas control centers including 24 hours central emergency control room. During the FY 2016-17, 918 km illegal gas distribution line has been removed and around 5,68,000 illegal gas burners have been disconnected.



Prepaid Gas Meter of TGTDC



APSC 450 (S) RMS, Ashuganj under BGDCL



Bakhrabad Gas Distribution Company Limited (BGDCL)

Bakhrabad Gas Distribution Company Limited (BGDCL), previously named as Bakhrabad Gas Systems Limited (BGSL), was established on 7 June, 1980 initially with the three-fold responsibilities of production, transmission and distribution. Gas supply was commenced on 20 May, 1984. Subsequently, Bakhrabad Gas Field was handed over to BGFCL putting an end to its production wing. Further, the 2 main transmission pipelines of the company, 24" X 110 km Bakhrabad-Chatto gram and 20" X 69 km Bakhrabad-Demra gas transmission pipelines were handed over to GTCL leaving only the responsibility for marketing gas in the Chatto gram Division excluding Brahmanbaria district and Kashba and Bancharampur Upazilas (outside its franchise area). As per Government decision, the company has again been reconstituted keeping greater Cumilla and greater Noakhali Districts under its franchise area and adding Brahmanbaria to its operational area.

The cumulative gas pipeline of different categories constructed by the company up to 30 June 2017 is 3,868.79 km. The cumulative gas connection stood at 4,92,560 as on 30 June 2017 which includes 19 power, 1 fertilizer, 163 industrial, 76 captive power, 2,139 commercial, 89 CNG and 4,90,073 domestic (Burner) connections.

During the FY 2016-17, BGDCL sold 142.44 BCF gas to its customers, of which power plants consumed 102.15 BCF (71.71%). The company earned Tk. 20,124.2 million as sales revenue, net profit before tax stood at Tk. 2,619.7 million and paid Tk.1,454.0 million to the national exchequer. The company purchased 126.07 BCF

gas and sold 142.44 BCF gas this year. As a result, the system gain of the company stood at 16.37 BCF i.e 12.98%.

During the FY 2016-17, the gas connections of 1,424 nos. of different categories of customers were disconnected due to non-payment of gas bills and illegal use of gas.

In order to mitigate gas crisis, Hook-up work between newly installed Kutumbapur TBS and existing Cumilla Lateral line 10" dia & 360 psig and Summit Power Plant line 6" dia & 360 psig at Chandina have been completed. For the same purpose, fabrication & installation of a IP-DRS and Hook-up work between newly upgraded Feni TBS of GTCL and 6" dia & 4 bar Feni town gas pipeline, 6" dia & 4 bar Chowddagram gas pipeline, 10" dia & 10 bar Majjdee lateral line and 8" dia & 10 bar Doren power plant gas pipeline have been completed. The company has constructed two separate gas pipelines and RMS during the FY 2016-17 for supplying gas to Ashugonj 450 MW (South) and 450 MW (North) Power Station on Turn-Key basis with the financing of Ashugonj Power Station Company Limited.

BGDCL started collection of gas bill through bill-pay system of Grameen Phone and online gas bill collection services through a bank. The company established e-tendering procedure for inviting bid. The company launched a hot line number for disposing of any accidental information instantly received from the customer and a total no. of 855 calls have been received from the customers up to 30 June, 2017 and satisfactory services have been provided to these customers.



Regulation & Metering Station of JGTDSL



Jalalabad Gas Transmission and Distribution System Limited (JGTDSL)

The activities of Jalalabad gas was initially started as a project in 1977. Thereafter, Jalalabad Gas Transmission & Distribution System Limited (JGTDSL) was formed under Companies Act on 1 December, 1986 with an authorized capital of Tk. 1,500.00 million through infrastructure development of gas transmission & distribution system under the management of Petrobangla with the responsibility of distribution and marketing natural gas to all categories of customers in its franchise are consisting of Sylhet Division.

The company possessed a total of 3,818.61 km gas network comprising of 466.54 km transmission, 1,336.71 km distribution, 1,221.06 km feeder mains and service lines and 794.30 km other (customer financing) pipelines. During the FY 2016-17, the company constructed 1.61 km pipelines including 0.09 km distribution, 0.05 km feeder mains and service lines and 1.47 km others. During the year, the company provided 6 new connections which included 1 power, 2 captive power and 3 industrial connections.

During the FY 2016-17, the gas sales of the company was about 103.88 BCF of which power plants consumed 61.34 BCF (59.05%) and others 42.53 BCF. During the year, the company earned Tk. 16,388.20 million as revenue, Tk. 1,271.10 million as net profit before tax and Tk. 826.20 million after tax. The company paid Tk. 975.20 million to the national exchequer.

During the year under review, gas connection of 2,502 nos. of different categories of customers have been disconnected due to non-payment of gas bills.

During the year, the company has been able to keep the system loss within the limit of 'Zero' percent through the efficient management and proper maintenance of pipeline & equipments and different efforts are being continued to keep the system loss under control.

JGTDSL introduced 'Online Billing System' to improve the quality of customer services through use of information technology with a view to implement revenue earning activities i.e. payment of gas bills by the customers using VISA card, Master card and other payment gateway without appearing at any bank. The company has already established e-tendering procedure for inviting bid.

With the object of supplying 20 MMscfd gas to the industrial customers of BEZA (Bangladesh Economic Zones Authority), the company is implementing a project titled "Gas supply to Srihotto Economic Zone, Sherpur, Moulvibazar" at a cost of Tk. 378.2 million with the duration from March, 2016 to June, 2018.



Pashchimanchal Gas Company Limited (PGCL)

Pashchimanchal Gas Company Limited (PGCL) is the 4th gas marketing company under Petrobangla set-up with the objective of distributing gas in the north-west region of the country. The company commenced its business on 23 April, 2000. During the FY 2016-17, a total of 5.33 km of pipeline of various diameters has been constructed and by the end of June, 2017 the company encompassed a network of 1,632.82 km pipeline.

At the end of FY 2016-17, the company provided gas connection to 1,29,306 customers including 03 new gas connections (2 industry and 1 CNG) to new customers. During this fiscal year a total of 32.17 BCF of gas was sold by the company as against of 40.23 BCF gas in the previous year. The company earned Tk. 5,971.9 million revenue from sales during FY 2016-17 and earned Tk. 558.2 million as net profit before tax. The company paid Tk. 571.8 million to the national exchequer during this fiscal year.

The company is always putting its best efforts for achieving its desired goals. Meanwhile the company has extended its gas network facilities in Sirajganj, Baghabari, Bera, Santhia, Shahjadpur, Pabna, Ishwardi (including Ishwardi EPZ), Bogura, Rajshahi and other important areas for carrying the benefits of gas facility on the doorstep of the masses. A DPP has been prepared with a view to supplying gas in near future in industries and EPZ areas in Rangpur and Nilphamari districts including Pirganj and Syedpur Upazilas.

20 gas meters with electronic volume corrector (EVC) have been installed in different customers' premises in order to determine more accurate gas consumption, to calculate proper system loss of gas, to increase consciousness among the gas users and to enhance reliability between the gas sellers and the customers. 125 nos. of manpower have been given professional training in this year. Waiting room with related facilities has been established in each of the regional sales office including the head office with a view to provide quality services to the customers as expected by the government. Customers' complaint and opinion receiving boxes have been placed in every regional sales office to ensure best services delivered to the customers. The grievance redress system (GRS) committee, the innovation committee and the annual performance agreement (APA) team have been played important role in this regard. Online application procedure for job seekers has started during this time. Online updating of customers' gas billing status has also been adopted in this year. Activities of Emergency Cell are always in place for disposing of any complaint regarding gas leakages or any other problems. The company has already established e-tendering procedure for inviting bids. A total of 468 nos. of gas connections have been disconnected for illegal gas consumption and gas bill default in FY 2016-17 where 432 residential, 26 commercial, 7 industrial, 2 CNG and 1 Captive Power connections are included.



Pipeline Fitting by PGCL for the RMS Run for the Sirajganj 225 MW CCPP Power Plant (2nd Unit)



Karnaphuli Gas Distribution Company Limited (KGDCL)

Karnaphuli Gas Distribution Company Limited (KGDCL) was formed on 8 February, 2010, with greater Chattogram and Chattogram Hill tracts area which were under erstwhile BGSF franchise, pursuant to a government decision to rationalize and improve the services of the companies under Petrobangla. The commercial activities of the company commenced on 1 July, 2010.

Gas sales by KGDCL during the FY 2016-17 stood at about 95.46 BCF. The company earned Tk. 21,819.2 million as sales revenue and Tk. 4,907.8 million as net profit before tax. The company paid Tk. 2,958.7 million to the national exchequer during this year. The company purchased 85.87 BCF gas and sold 95.46 BCF gas this year. As a result, the system gain of the company stood at 9.59 BCF i.e 11.17%. The cumulative gas connection stood at 6,02,074 as on 30 June 2017 which includes 5 power, 4 fertilizer, 1,048 industrial, 177 captive power, 2,788 commercial, 2 tea-garden, 68 CNG and 5,97,982 domestic connections. During FY 2016-17, 0.13 km distribution pipelines with diameters ranging from ¾" to 6" were constructed.

Online gas bill payment system has been introduced in KGDCL for all categories of customers. Now customers can pay gas bill from anywhere through online facilitated banks and

Mobile apps. To facilitate various activities regarding gas sales, connection, disconnection, reconnection, load change, meter change, monthly gas consumption etc., a customized software has been developed. Besides, a GIS-based digital map of gas distribution network for central city has already been developed. Remaining network will be digitized soon. This becomes inevitable for smooth operation and maintenance of gas network.

A project of Tk. 2,465.8 million financed by Bangladesh Government (GoB), Japan International Cooperation Agency (JICA) and KGDCL to install 60,000 numbers of prepaid gas meters in domestic gas connections in Chattogram city area is in progress. A total of 10,104 numbers of meters have been installed as on June, 2017. Another project titled as 'Construction of gas pipeline for Mirsharai Economic Zone and KGDCL gas distribution network up-gradation' is being implemented at a cost of Tk. 3,671.0 million. The project aims at upgrading the capacity of company's existing distribution network to facilitate distribution of upcoming R-LNG.

KGDCL has been conducting drives against gas pilferage and illegal activities regularly. During FY 2016-17, a total of 9,203 numbers of gas connections were disconnected, and Tk. 336.0 million has been realized.



Vigilance activities of KGDCL



সুন্দরবন গ্যাস
কোম্পানী লিমিটেড

Sundarban Gas Company Limited (SGCL)

The Sundarban Gas Company Limited (SGCL) was formed on 23 November, 2009 with the objective of supplying natural gas to the south-western region of the country which includes Khulna Division, Barishal Division and greater Faridpur district. The main responsibilities of the company are to construct distribution pipelines, provide gas connections and post connection services under its franchise area.

Presently, the Company is continuing supply of natural gas and providing post connection services to one 35 MW rental power plant, one 225 MW state owned power plant, 1 captive, 3 commercial, 2 industrial, 13 metered domestic connections and 3,076 domestic customers in the island district Bhola. In addition, gas is being supplied to gas based 360 MW combined cycle power plant (CCPP) at Bheramara, Kushtia and around 2.51 BCF gas has been supplied to this power plant during the FY 2016-17. Gas supply agreement (GSA) between SGCL and Nutan Bidyut (BD) Limited has been signed for supplying gas to 220 MW power plant in Bhola. Steps have been taken to supply gas to 225 MW and Rupsha 800 MW CCPPs of North-West Power Generation Company Limited (NWPGL) in Khulna and 330 MW dual fuel CCPP of Power Development Board (PDB).

Industrial connections have been provided to 2 installations named Priyo Automatic Bricks and Sagorika Feeds in Bhola and approximately 0.79 MMCM gas have been supplied to these customers in the FY 2016-17.

In the FY 2016-17, a contract was signed between Gas Oil Liners and SGCL on 28 March, 2017 to complete the work titled "Construction of 8"Ø Low Pressure (60 psig) Lateral Gas Pipeline at Bhola-Borhanuddin Road" having contract price of Tk. 3.6 million with own finance of SGCL. Under this contract, 8" X 2.79 km pipeline has been constructed. In addition, 4" X 0.43 km, 3/4" X 0.14 km pipeline in Bhola and a 20" X 0.85 km pipeline from the CGS of Gas Transmission Company Limited (GTCL) to 360 MW CCPP's RMS at Bheramara have been constructed with the finance of NWPGL.

During the FY 2016-17, the company earned a total revenue of Tk. 1,076.19 million out of which Tk. 1,042.72 million from sales of 12.27

BCF gas and rest Tk. 33.47 million from other operational income. In this year, the company made a total expenditure of Tk. 1,036.87 million, out of which Tk. 902.18 million was spent to purchase gas and the rest Tk. 134.69 million was spent to meet the cost of gas distribution. After considering other non-operating income, interest income on bank deposit and provision made to beneficiaries' profit participation fund, net profit before tax and after tax for the FY 2016-17 were Tk. 59.89 million and 38.93 million respectively.

In the FY 2016-17, capital, loan and liabilities of the company increased by Tk. 140.91 million (3.35%) due to undistributed profit of Tk. 37.93 million transferred to revenue reserve, Tk. 49.70 million loan received from Petrobangla against payment of arrear CD-VAT of South-West Region Gas Distribution Network Project, Tk. 31.96 million foreign loan payment by ADB against imported materials price of the project and Tk. 22.82 million received as customer security deposit from different categories of customers against gas connection. In the FY 2016-17, fixed assets purchased by company Tk. 35.08 million, South-West Region Gas Distribution Network Project's pipeline materials of Tk. 22.62 million, vehicles of Tk. 32.40 million and project cost of Extension of Gas Distribution Network in Bhola and New Network at Borhanuddin Tk. 137.81 million transferred as fixed assets. Also, due to work-in-progress decreased by Tk. 95.16 million, fixed deposit increased by Tk. 2.34 million, preliminary expenses decreased by Tk. 0.29 million and net current asset increased by Tk. 47.18 million, total assets of the company increased by Tk. 140.91 million (3.35%) over the previous year.

During the FY 2016-17, the company's current assets liabilities ratio was 1.28 : 1, return on capital invested was 1.38%, return on average net fixed asset was 18.73% and debt-equity ratio was 85 : 15. After reviewing this financial indicators, it is noted that the liquidity position, rate of profitability and financial solvency of the company have not yet reached to the desired level. It is expected that the financial position of the company will stand on a very sustainable base while the gas sales quantity in Khulna and Bhola distribution area under this company will increase in future.



Rupantarita Prakritik Gas Company Limited (RPGCL)

Rupantarita Prakritik Gas Company Limited (RPGCL) started its activity as a company of Petrobangla from 1 January, 1987. RPGCL is vested with the responsibilities of promoting compressed natural gas (CNG), building a transport infrastructure in the country based on CNG, and production and distribution of LPG, petrol and diesel obtained from NGL. Approximately 3.71 BCF of CNG is being used every month from 550 CNG stations, which is 5% of the total gas consumption of the country.

The government has decided to import liquefied natural gas (LNG) to meet the ever increasing demand of natural gas against a backdrop of its shortage. As per government decision, all activities related to LNG have been vested to RPGCL. Steps have been taken to accomplish all necessary functions to import LNG including installation of LNG terminals. Two terminal use agreements (TUA) have been signed with Excelerate Energy Bangladesh Limited and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 FSRU at Moheshkhali approximately 90 kilometers south of Chattogram for supplying 500 MMscfd of LNG each and expected to be commissioned within 2018 and by early 2019 respectively. In addition, a TUA has been initiated with Reliance Power Ltd., India for setting up FSRU at Kutubdia having the capacity of 500 MMscfd of LNG and the terminal is scheduled to be commissioned by the end of July, 2019.

Two memorandum of understandings (MoU) have been signed with China Huanqui Contracting & Engineering Corp. (HQC) and China CAMC Engineering Co. Ltd.; and Petronet LNG Ltd. (PLL) for construction of 2 land based LNG terminals on BOOT basis, one at Moheshkhali and the other at Kutubdia. Each of these 2 terminals will have a capacity of handling LNG equivalent to 1,000 MMscfd of gas and scheduled to be commissioned by the end of December, 2021.

Term-sheet Agreement has been signed with Hon Kong Shanghai Manjala Power Ltd. Co. (HSMPL) with Global LNG and Petronas consortium for construction of floating storage unit (FSU) and Fixed Jetty Based LNG Receiving Terminal on BOOT basis at Kutubdia with a capacity of 500 MMscfd. The terminal is scheduled to be commissioned by the end of March, 2020. In addition, gas supply agreement

(GSA) has been initiated with GUNVOR Singapore Pte. Ltd.; Trafigura Singapore Pte. Ltd.; and Vitol Asia Singapore Pte. Ltd. for construction of small scale LNG Terminal with a capacity of 200 MMscfd each at KAFCO, CUFL and SANGU Jetty respectively.

A sales purchase agreement (SPA) has been signed with RasLaffan Liquefied Natural Gas Company Ltd., Qatar to ensure the supply of 1.8-2.5 mtpa LNG on DeliveryExship (DES) basis for 15 years. SPA has been initiated with Oman Trading International (OTI) for supplying 1 mtpa LNG on DES basis for 10 years. Another SPA has been initiated with Astra Oil Trading (AOT Trading, AG) for supplying 1.25 mtpa LNG on DES basis for 15 years. Thirty companies have been shortlisted for master sales purchase agreement (MSPA) for spot basis LNG Supply.

In the FY 2016-17, the company earned Tk. 2,606.21 million as revenue before VAT from sales of CNG, LPG, MS and HSD. The company earned an amount of Tk. 694.28 million as net profit before tax and made a payment of Tk. 140.0 million to the National Exchequer.

With a view to enhancing the speed of working and augmenting efficiency, innovative activities have been undertaken which includes- in CNG dispensation, auto-billing system tested by BSTI has been introduced on test basis; online service has been launched for CNG cylinder testing; online VAT accounting system has been introduced with installation of server and Bandwidth has been upgraded and website updated for providing uninterrupted inter-net service.



MLNG Sea-bed pipeline Tie-in Platform



Barapukuria Coal Mining Company Limited (BCMCL)

Barapukuria Coal Mine is the first and only coal mine in Bangladesh. In 1985, Geological Survey of Bangladesh (GSB) discovered high quality bituminous coal spread over an area of 6.68 sq. km at a depth of 118-509 metres in Barapukuria. China National Machinery Import and Export Corporation (CMC) developed this underground mine having a capacity of 1.0 million metric tons of coal per year. The Barapukuria coal is very much environment friendly, very low in sulphur content (0.53%) and very high in heat generation capacity (11,040 btu/lb).

To ensure proper implementation of the project, Barapukuria Coal Mining Company Limited (BCMCL) was established on August 4, 1998. For maintaining uninterrupted production of coal from the mine, a Management, Production and Maintenance Contract was signed with the Consortium of CMC-XMC on 4 June, 2005 for a period of 71 months with a contract price of US\$ 82.30 million (Foreign Portion US\$ 55.551 + Local Portion Tk. 1,572.7 million). The company went into commercial production on 10 September, 2005. The contract was completed on 10 August, 2011.

On expiration of the M&P Contract, a new draft "Management, Production, Maintenance & Provisioning Services (MPM&P)" contract was signed on 6 August, 2011 with the successful bidder Consortium of Xuzhou Coal Mining Group Corporation Limited and China National Machinery Import and Export Corporation (XMC-CMC). New MPM&P contract commenced on 11 August, 2011 and completed on 10 August, 2017. To continue uninterrupted production from the mine, a new MPM&P Contract (MPM&P Contract-2017) for a period of 48 months was signed on 8 July, 2017 and came into effect on 11 August, 2017.

In the FY 2016-17 total coal production was achieved by 1.16 million metric tons. The present commercial production rate is 4,000 metric tons/day. During the FY 2016-17, the company earned Tk. 10,228.96 million from sale of coal and Tk. 449.68 million from other sources comprising a total amount of Tk. 10,678.64 million, which is the highest ever revenue collection. During this period the expenditures for operation and other costs were Tk. 5,023.38 million and Tk. 579.88 million respectively. The company made a net profit of Tk. 5,075.38 million during this period prior to

transferring Tk. 253.77 million to beneficiary profit participation fund (BPPF). In this fiscal year, the net profit stood at Tk. 3,134.05 million after deducting of BPPF and income taxes, which was Tk. 2,784.26 million in the previous fiscal year. In addition to this, the actual revenue expenditure was Tk. 6,255.77 million in the current fiscal year against an allocated budget of Tk. 7,535.52 million which is 16.98% less. In addition, during the FY 2016-17, the company deposited Tk. 8,730.30 million to the government exchequer as supplementary taxes, custom duties, VAT, income tax and royalty, etc.

Remarkable activities by BCMCL in FY 2016-17 included 1.16 million metric tons coal production from 1214 and 1207 longwall face. To enhance the present production of Barapukuria Coal Mine, 2 projects have been undertaken, which are: (i) Feasibility study for extension of existing underground mining operation of Barapukuria Coal Mine towards the southern and the northern side of the basin without interruption of the present production and (ii) Feasibility Study for Development of Dighipara Coal Field at Dighipara, Dinajpur, Bangladesh.

Subsidence monitoring activities has been conducted by this company on regular basis in the FY 2016-17. There is a joint schedule program by BCMCL and Chinese XMC/CMC consortium for surface subsidence monitoring (three times in a month). The company has already established e-tendering procedure for inviting bid. As per directives of the Energy and Mineral Resources Division, e-filing system has been introduced in the Company.



Coal Stock Yard of BCMCL



Maddhapara Granite Mining Company Limited (MGMCL)

Geological Survey of Bangladesh (GSB) discovered the deposits of hard rock at a depth of 136 meter at Maddhapara, Parbatipur of Dinajpur district in 1974. Later, a contract between Petrobangla and Korea South South Corporation (NAMNAM) of DPR Korea was signed on 27 March, 1994 for development of Maddhapara Hard Rock Mining Project and accordingly NAMNAM had undertaken the physical works of the project from September, 1994. Maddhapara Granite Mining Company Limited (MGMCL) was formed under Petrobangla on 4 August, 1998 to operate the hard rock mine at Maddhapara. Commercial production was started on 25 May, 2007, but the production was limited to about 600-800 metric tons per day in single shift operation.

Granite mining in Bangladesh is important, as there is hardly any other source of construction aggregate. It is set to produce about 1.65 million metric tons of granite per year. In order to continue full range of target production (5,500 metric tons/day) from Maddhapara Granite Mine and development of underground roadways and stopes, a contract was signed between Maddhapara Granite Mining Company Limited and Germania-Trest Consortium (GTC) on 2 September, 2013 for management and operation of the mine having contract price of US\$ 171.86 million. According to the contract,

the contractor will develop 12 new stopes and produce 9.20 million metric tons of rock over a period of 6 years. Under the commencement of new management contract, the contractor has been extracting granite, and started development of new underground roadways and stopes.

In the FY 2016-17, a total 3,41,982.32 metric tons of granite was produced and 5,06,971.05 metric tons was sold. Additional granite was sold from previous stocks. The company earned Tk. 211.8 million from the sale of granite and made a payment of Tk. 226.7 million to the national exchequer.

In order to determine the possibility of increasing production of granite and constructing granite slabs through extension of the mining zone/area of Maddhapara Mine, a Proposal for Feasibility Study/Survey (PFS) captioned as "Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine" was approved on 21 December, 2017 and accordingly a contract was signed with the consulting firm BOYD-ME Joint Venture on 7 January, 2018 for a period of 18 months with a contract price of Tk. 462.2 million. The activities of the Study/Survey has already been started and expected to be completed by the stipulated time.



Underground Rock Transportation System of MGMCL



Development Programmes for the Fiscal Year 2016-17

The annual development programme of Petrobangla for the FY 2016-17 had a total allocation of Tk. 10,495.50 million, which includes Tk. 6,778.60 million as project aid. The programme consists of 14 projects of which 12 are foreign-aided and 2 are GoB funded. In addition, there are 11 projects financed by the corporation/companies itself (self financing) involving total allocation of Tk. 2,502.00 million, where cash foreign exchange (CFE) involvement

is Tk. 1,213.60 million and local currency is Tk. 1,288.40 million. Furthermore, there are 18 projects under gas development fund (GDF) in the same fiscal year with a total allocation of Tk. 9,664.80 million, where CFE involvement is Tk. 6,896.50 million and local currency is Tk. 2,768.30 million. List of ongoing projects stating estimated total project cost, execution period and source of finance are as follows :





A. Ongoing Projects (foreign aided) : FY 2016-17

(Taka in Million)

No.	Name of the project	Project Period	Executing Agency	Estimated Cost (PA)	Development Partners
1	Installation of Compressor Stations at Ashuganj and Elenga	Jan.'06- June'18	GTCL	14941.33 (9191.22)	ADB
2	Hatikumrul-Bheramara Gas Transmission Pipeline Project (30" x 98.10 km)	July'06- Dec.'16	GTCL	7268.51 (4408.03)	ADB
3	Bakhrabad-Siddhirganj Gas Transmission Pipeline Project (30" x 60 km)	July'07- Dec.'18	GTCL	8497.00 (5743.20)	World Bank
4	Gas Seepage Control and Appraisal and Development of Titas Gas Field Project	Jan.'10- June'17	BGFCL	9093.00 (6850.00)	ADB
5	South-West Region Gas Distribution Network Project	Jan.'10- Sept.'15	SGCL	6000.00 (2850.00)	ADB
6	Rehabilitation and Expansion of Existing Supervisory Control and Data Acquisition (SCADA) System of National Gas Grid under GTCL (Component-B of Bharamara Combined Cycle Power Plant Development Project)	Jan.'13- Dec.'18	GTCL	2940.04 (2402.40)	JICA
7	Natural Gas Efficiency Project (Installation of Wellhead Compressors at Titas Gas Field Location-C and Narshingdi Gas Field)	July'14- June'18	BGFCL	8680.00 (7290.00)	JICA
8	Natural Gas Efficiency Project (Installation of Prepaid Gas Meter for KGDCL)	July'14- June'18	KGDCL	2465.60 (1541.90)	JICA
9	Natural Gas Efficiency Project (Dhanua- Elenga and West Bank of Bangabandhu Bridge - Nalka Gas Transmission Pipeline) (30" x 52 km and 24" x 14 km)	July'14- June'19	GTCL	9791.80 (5070.20)	JICA
10	Natural Gas Efficiency Project (Installation of Prepaid Gas Meter for TGTDCCL)	Jan.'15- Dec.'18	TGTDCCL	7121.00 (4548.10)	JICA
11	Installation of Wellhead Compressure at Location-A of Titas Gas Field	July'16- Dec.'20	BGFCL	9100.00 (7530.00)	ADB
12	Construction of Chattogram-Feni-Bakhrabad Gas Transmission Parallel Pipeline Project	July'16- June'19	GTCL	19623.80 (7383.60)	ADB
Sub-Total (foreign-aided)				105522.08 (64808.65)	

Source : Planning & Monitoring Division, Petrobangla.

B. Ongoing Projects (GoB funded) : FY 2016-17

(Taka in Million)

No.	Name of the project	Project Period	Executing Agency	Estimated Cost (CFE)
1	Gas Transmission Capacity Expansion Project (Ashuganj-Bakhrabad) (30" x 61 km)	Jan.'10-Dec.'17	GTCL	5134.60 (2544.72)
2	Construction of Moheshkhali-Anowara Gas Transmission Pipeline Project (30" x 91 km)	July'14-June'18	GTCL	10396.70 (4538.58)
Sub-Total (GoB)				15531.30 (7083.30)

Source : Planning & Monitoring Division, Petrobangla.

C. Ongoing Projects (self financing) : FY 2016-17

(Taka in Million)

No.	Name of the project	Project Period	Executing Agency	Estimated Cost (CFE)
1	Installation of 4,000 barrels/day capacity Condensate Fractionation Plant at Rashidpur (1st Revised)	July'12-Aug.'18	SGFL	4635.00 (3288.00)
2	Installation of 3,000 barrels/day capacity Catalytic Reforming Unit (CRU) at Rashidpur Condensate Fractionation Plant (RCFP) to Convert Petrol into Octane (2nd Revised)	March'12-June'19	SGFL	4979.83 (3698.70)
3	Construction of 13 Storied Head Office Building with Two Basements of Gas Transmission Company Limited (GTCL) at Sher-e-Bangla Nagar Administrative Area, Agargaon, Dhaka	July'12-June'17	GTCL	1084.80 (0.00)
4	Construction of 20" x 1000 psig x 30 km Gas Transmission Pipeline from Sreepur to Joydevpur CGS	July'13-June'18	TGTDCL	2355.30 (679.30)
5	Feasibility Study for the Extraction of Coal Bed Methane (CBM) at Jamalganj Coal Field	Jan.'14-Dec.'16	Petrobangla	233.80 (164.90)
6	Feasibility Study for Extension of Existing Underground Mining Operation of Barapukuria Coal Mining towards the Southern & the Northern Side of the Basin without interruption of the Present Production	Apr.'15-June'18	BCMCL	776.00 (476.60)
7	Construction of Divisional Office Building of Titas Gas Transmission and Distribution Company Limited at Gazipur	July'15-June'18	TGTDCL	145.10 (0.00)
8	Titas Gas Field Well nos. 23, 24 (Sorail) to Khatihata and Well no. 25, 26 (Malihata) to Khatihata Gas Transmission Pipeline Project	July'15-Dec.'17	GTCL	127.80 (0.00)
9	Gas Supply to Srihotto Economic Zone, Sherpur, Moulvibazar	March'16-June'18	JGTDSL	310.40 (189.90)
10	Construction of Anowara-Fouzderhat Gas Transnission Pipeline Project	Apr.'16 – June'18	GTCL	7761.10 (3132.20)
11	Feasibility Study for Development of Dighipara Coal Field, Dinajpur	Jan.'16-June'19	BCMCL	1798.80 (1226.30)
Sub-Total (self financing)				24207.93 (12855.90)

Source : Planning & Monitoring Division, Petrobangla.



D. Ongoing Projects (under GDF): FY 2016-17

(Taka in Million)

No.	Name of the project	Project Period	Executing Agency	Estimated Cost (CFE)
1	Workover of Wells at Titas Gas Field Seepage Area	July'13- June'17	BGFCL	2350.00 (635.50)
2	3-D Seismic Project of BAPEX	Dec.'12- Nov.'19	BAPEX	2477.00 (1134.60)
3	2-D Seismic Project of BAPEX	Dec.'12- June'18	BAPEX	933.30 (340.50)
4	Drilling of Well no. Kailashtilla-9 (Appraisal/Development Well)	Nov.'13- Dec.'17	SGFL	1400.70 (609.90)
5	Drilling of Well no. Sylhet-9 (Appraisal/Development Well)	Dec.'13- June'18	SGFL	1602.70 (558.00)
6	Drilling of Well no. Rashidpur-9 (Appraisal/ Development Well)	Feb.'15- June'17	SGFL	2076.00 (1631.48)
7	Drilling of Well nos. Rashidpur-10 and 12 (Exploratory Wells)	July'14- June'17	SGFL	3711.70 (2962.17)
8	Installation of Gas Compressors at Bakhrabad Field	Jan.'14- June'17	BGFCL	1197.50 (948.00)
9	Procurement of Gas Process Plant for Srikail Gas Field	July'14- Dec.'16	BAPEX	1166.70 (1020.00)
10	Shahjadpur-Sundalpur (Sundalpur-2) Appraisal/Development Well Drilling Project	Oct.'14- Oct.'17	BAPEX	629.00 (372.80)
11	Workover of Titas Well no. 21	Jan.'15- Dec.'16	BGFCL	530.00 (84.00)
12	Srikail-4 Appraisal cum Development Well Drilling Project	July'15- Sep.'16	BAPEX	2507.30 (2037.20)
13	Drilling of Well no. 10 at Bakhrabad Gas Field	July'15- June'17	BGFCL	2243.50 (1839.00)
14	RUPKALPO-1 Drilling Project : 3 Exploratory Wells (Hararganj-1, Srikail East-1, Salda North-1) and 2 Development Wells (Srikail North-2,, Kasba-2)	July'16- June'18	BAPEX	4778.30 (3312.50)
15	RUPKALPO-2 Drilling Project : 4 Exploratory Wells (Salda Nodi South-1, Semutang South-1, Batchia-1 and Salda Nodi East-1)	July'16- June'18	BAPEX	4145.20 (2845.00)
16	RUPKALPO-3 Drilling Project : 4 Exploratory Wells (Kasba-1, Madarganj-1, Jamalpur-1 and Sailokupa-1)	July'16- June'18	BAPEX	3826.30 (2465.50)
17	RUPKALPO-4 Drilling Project : 3 Exploratory Wells (Shahbazpur East-1, Bholā North-1 and Savar-Singair -1) and 2 Workover (Shahbazpur East-1 and 2)	July'16- June'18	BAPEX	4621.00 (3344.50)
18	Procurement of 1 Drilling and 1 Workover Rig with Supporting Equipment for BAPEX	July'16- June'18	BAPEX	3275.70 (2906.50)
Sub-Total (GDF)				43471.90 (29047.15)
Grand Total (foreign-aided + GoB + self financing + GDF)				188733.21 (113795.00)

Source : Planning & Monitoring Division, Petrobangla.



Future Programmes

Energy is the driving force for the development of the country. Energy plays a vital role for the entire economic development such as poverty reduction and the overall development of the country. By achieving the GDP growth rate of over 7% for the country, it is possible to improve the living standard of huge population through proper utilization of the limited resources. It may be mentioned here that present energy crisis has become acute due to the absence of proper initiatives for the last 8 years until 2009 in the energy sector. As a result, the GDP growth of the country has been hampered due to less growth in the industry and other production sub-sectors including power sector. To overcome the stagnant situation, the present government has been putting its best effort for ensuring energy supply to accelerate the economic development. To achieve this goal short-term, mid-term and long-term plans have been taken for gas and coal extraction, development and production. Furthermore, to ensure the energy supply, necessary steps have been taken to import 1,000 MMscfd of LNG by 2019. Initiatives have also been taken for the development of coal fields in line with coal policy being finalized.

In view of the above perspective, following strategies have been taken up for the oil, natural gas and mineral development under the Petrobangla umbrella:

- Adoption of time-based action plan for discovering new gas fields and development of the producing gas fields;
- Make BAPEX more effective in exploring oil and gas through acquiring new rigs and its ancillaries;
- Importing liquefied natural gas (LNG) to compensate increasing gas demand;
- Support Government in finalizing National Energy Policy and Coal policy to create opportunity for using energy from multiple sources;
- Increasing financial capacity of BAPEX by forming Gas Development Fund; and
- Putting efforts to ensuring proper pricing of gas to conserve energy and improve the financial operations of the gas sector.



Sector wise Gas Demand Forecast (2017-2022)

Figures are in BCF

Sector	2017-18	2018-19	2019-20	2020-21	2021-22
Power	607	657	728	705	709
Captive	152	152	152	152	140
Fertilizer	98	98	98	98	98
Industry	191	253	321	366	390
Commercial	9	9	9	9	9
Domestic	133	133	134	133	133
Tea-Estate	2	2	2	2	2
CNG	41	41	41	39	34
Total	1235	1346	1487	1505	1516

Source : Production & Marketing Division, Petrobangla.

Plan for Production Augmentation

National exploration company BAPEX has launched a 108 well drilling programme covering exploration, production and work-over for augmentation of gas production from the onshore under the title 'Rupkalpa (Vision) 2021'. To be completed by the year 2021, this programme is expected

to yield additional capacity of around 1,000 MMscfd. In addition, International Oil Companies engaged in the offshore are also expected to drill at least five exploration wells during this period. A summary of the augmentation programmes is given in the table below :

Year-wise Drilling and Work-over Programmes

FY	Exploration Well	Development Well	Workover Well	Total
2015-16	1	1	3	5
2016-17	5	3	7	15
2017-18	19	3	9	31
2018-19	17	6	3	26
2019-20	8	11	-	19
2020-21	10	7	-	17
Total	60	31	22	113

Natural Gas of Bangladesh

Chemical Composition, Specific Gravity and Calorific Value

No.	Gas Fields	Water Content (Lb/MMscf)	Chemical Composition of Natural Gas (Volume Percent)						Specific Gravity	Gross Calorific (Btu/cft)	Hydrogen Sulphide		
			Methane	Ethane	Propane	Iso-Butane	N-Butane	High Comp.				N ₂	CO ₂
1	Sylhet	1.200	95.349	2.542	0.974	0.247	0.296	0.165	0.247	0.180	0.5896	1056.878	Nil
2	Chhatak	n/a	97.900	1.800	0.200	-	-	-	-	-	0.5500	1005.710	Nil
3	Rashidpur	1.200	98.489	0.802	0.148	0.053	0.028	0.046	0.338	0.096	0.5637	1017.234	Nil
4	Kailashthilla	0.700	96.217	2.588	0.674	0.098	0.075	0.019	0.310	0.018	0.5773	1042.726	Nil
5	Titas	4.500	96.587	1.900	0.406	0.099	0.060	0.166	0.343	0.440	0.5790	1032.000	Nil
6	Habiganj	4.200	97.650	1.543	0.006	0.000	0.000	0.002	0.790	0.008	0.5648	1014.000	Nil
7	Bakhrabad	4.800	93.700	3.790	0.834	0.246	0.116	0.233	0.495	0.585	0.5989	1057.000	Nil
8	Semutang	n/a	96.079	2.499	0.415	0.103	0.056	0.096	0.209	0.542	0.5818	1037.080	Nil
9	Begumganj	n/a	95.460	3.190	0.640	0.170	0.040	-	-	0.300	0.5800	1045.610	Nil
10	Kutubdia	n/a	95.720	2.870	0.670	-	0.310	-	0.360	0.070	0.5900	1041.660	Nil
11	Beanibazar	4.400	93.536	3.499	1.324	0.309	0.274	0.603	0.354	0.099	0.6089	1086.418	Nil
12	Feni	n/a	95.710	3.290	0.650	0.150	0.050	-	-	0.150	0.5800	1049.840	Nil
13	Kamta	n/a	95.360	3.570	0.470	0.090	-	-	-	0.510	0.5700	1043.130	Nil
14	Fenchuganj	n/a	97.264	1.452	0.135	0.036	0.012	0.070	0.212	0.819	0.5743	1018.390	Nil
15	Jalalabad	n/a	95.986	2.509	0.433	0.300	0.066	0.375	0.254	0.075	0.5885	1056.066	n/a
16	Narsingdi	4.200	95.264	2.702	0.593	0.172	0.096	0.233	0.351	0.589	0.5893	1044.000	Nil
17	Meghna	4.400	95.185	3.050	0.667	0.169	0.096	0.209	0.390	0.234	0.5878	1050.000	Nil
18	Shahbazpur	n/a	94.553	3.555	0.569	0.159	0.058	0.062	0.201	0.842	0.5913	1044.570	Nil
19	Sangu	n/a	94.510	3.170	0.610	0.190	0.070	0.410	0.440	0.600	0.5900	1058.000	n/a
20	Saldanadi	n/a	96.959	1.781	0.324	0.079	0.048	0.095	0.129	0.583	0.5770	1029.860	Nil
21	Bibiyana	n/a	94.880	2.442	0.873	0.280	0.253	0.926	0.195	0.153	0.6107	1060.000	Nil
22	Bangura	2.110	95.482	2.564	0.661	0.146	0.146	0.194	0.309	0.664	0.5884	1049.200	Nil
23	Moulavibazar	n/a	98.198	1.002	0.160	0.042	0.022	0.087	0.356	0.131	0.5673	1020.220	Nil
24	Shahjadpur Sundalpur	n/a	98.349	0.908	0.070	0.001	0.004	0.003	0.558	0.106	0.5634	1013.520	Nil
25	Srikail	n/a	95.928	2.452	0.527	0.135	0.078	0.134	0.130	0.616	0.5847	1041.050	Nil

Source : Production & Marketing Division, Petrobangla.



Natural Gas Tariff in Bangladesh

Taka/MCF

Effective From	Power	Ferti- lizer	Industry	Comme- rcial	Tea estate	Cap. Power	CNG feed gas	Brick field (seasonal)	Domestic		
									Metered	Single Burner	Double Burner
29.07.1968	1.20	1.20	2.52	6.00	-	-	-	-	6.00	6.00	10.00
28.06.1969	1.60	1.60	2.92	6.40	-	-	-	-	6.40	6.30	10.50
19.06.1974	3.72	3.72	7.20	12.00	-	-	-	-	12.00	15.00	28.00
01.12.1977	5.00	5.00	9.00	13.00	-	-	-	-	13.00	16.00	30.00
02.06.1979	6.25	6.25	16.00	17.00	-	-	-	-	16.00	20.00	36.00
07.06.1980	7.75	7.75	18.00	19.00	-	-	-	-	18.00	22.00	40.00
07.06.1981	9.30	9.30	27.75	28.00	-	-	-	-	20.00	25.00	45.00
01.07.1982	10.50	10.50	31.00	31.00	-	-	-	-	27.00	35.00	65.00
30.06.1983	11.50	11.50	36.00	36.00	-	-	-	-	34.00	45.00	80.00
27.06.1984	13.05	13.05	36.00	45.20	-	-	-	51.00	34.00	45.00	80.00
30.06.1985	15.66	15.66	43.20	54.24	-	-	-	61.20	40.80	60.00	100.00
28.06.1986	19.09	19.09	52.14	65.39	-	-	-	78.30	44.88	66.00	110.00
18.06.1987	24.82	24.82	52.14	85.00	72.30	-	-	78.30	56.10	80.00	130.00
01.07.1988	28.54	28.54	59.96	97.75	83.15	-	-	90.05	56.10	92.00	150.00
01.07.1989	33.00	28.54	70.00	110.00	83.15	-	-	-	65.00	100.00	170.00
01.07.1990	37.95	32.82	80.42	126.50	95.62	-	-	-	74.75	115.00	195.00
01.07.1991	39.08	33.98	85.23	134.22	100.62	-	-	106.19	74.75	115.00	195.00
01.05.1992	43.05	37.39	93.74	134.22	110.16	-	43.05	116.67	82.12	126.00	215.00
01.03.1994	47.57	41.34	103.07	147.53	113.26	-	-	128.28	82.12	160.00	250.00
01.12.1998	54.65	47.57	118.93	169.90	130.26	86.37	-	147.25	94.86	185.00	290.00
01.09.2000	62.86	54.65	136.77	195.39	149.80	99.11	-	169.33	109.02	210.00	330.00
01.01.2002	65.98	57.48	143.57	205.30	157.16	104.21	-	177.83	114.40	275.00	350.00
01.09.2002	70.00	60.00	140.00	220.00	140.00	100.00	-	220.00	120.00	325.00	375.00
15.02.2003	-	-	-	-	-	-	70.00	-	-	-	-
01.07.2004	72.45	62.15	145.20	228.50	145.20	-	-	228.50	126.10	340.00	390.00
01.09.2004	-	-	-	-	-	103.50	-	-	-	-	-
01.01.2005	73.91	63.41	148.13	233.12	148.13	105.59	-	233.00	130.00	350.00	400.00
25.04.2008	-	-	-	-	-	-	282.30	-	-	-	-
01.08.2009	79.82	72.92	165.91	268.09	165.91	118.26	-	-	146.25	400.00	450.00
12.05.2009	-	-	-	-	-	-	509.70	-	-	-	-
19.09.2011	-	-	-	-	-	-	651.29	-	-	-	-
01.09.2015	-	-	190.86	321.68	182.64	236.73	764.55	-	198.22	600.00	650.00
01.03.2017	84.67	74.76	205.01	402.10	196.24	254.29	849.50	-	257.68	750.00	800.00
01.06.2017	89.48	76.74	219.74	482.52	210.11	272.41	906.14	-	317.15	900.00	950.00
01.09.2017	89.48	76.74	219.74	482.52	210.11	272.41	906.14	-	257.68	750.00	800.00

Source : Accounts Division, Petrobangla.

Gas Fields in Production

(As in December, 2017)

Gas in MMscfd, Condensate in BBL

Company	Gas Field	Total Wells (No.)	No of Producing Wells	Production Capacity (MMscfd)	Production	
					Gas	Condensate
1. BGFL	Titas	27	26	542	557	421
	Bakhrabad	10	6	43	35	13
	Habiganj	11	7	225	222	12
	Narsingdi	2	2	30	28	45
	Meghna	1	1	11	12	20
	Sub-Total		51	42	851	854
2. SGFL	Sylhet	8	2	8	6	44
	Kailashtila #1 (Silicagel)	4	1	13	11	65
	Kailashtila #2 (MSTE)	3	3	55	54	530
	Rashidpur	11	5	60	55	30
	Beanibazar	2	2	15	12	174
	Sub-Total		28	13	151	138
3. BAPEX	Saldanodi	4	2	10	4	1
	Fenchuganj	5	2	26	21	8
	Shahbazpur	5	3	50	40	7
	Semutung	6	2	3	1	0
	Sundalpur	2	2	0	0	0
	Srikail	4	3	40	37	102
	Begumganj	3	0	0	0	0
	Rupganj	1	1	8	1	1
	Sub-Total		30	15	137	104
Sub-Total (1+2+3)		109	70	1139	1096	1473
4. IOCs						
CHEVRON	Jalalabad	9	7	270	259	1115
	Maulavibazar	9	5	42	39	3
	Bibiyana	26	26	1200	1250	9055
TULLOW	Bangora	6	5	103	98	281
	Sub-Total		50	43	1615	1646
Grand Total (1+2+3+4):		159	113	2754	2742	11927

Source : Production & Marketing Division, Petrobangla.



Growth Trajectory of Customer

Year	TGTDCL	BGDCL	JGTDSL	PGCL	KGDCL	SGCL	TOTAL
1989-1990	330698	59937	32355	-	-	-	422990
1990-1991	346473	68129	34968	-	-	-	449570
1991-1992	364403	75028	37844	-	-	-	477275
1992-1993	386226	87741	40556	-	-	-	514523
1993-1994	414833	100402	43247	-	-	-	558482
1994-1995	453922	112118	47285	-	-	-	613325
1995-1996	493261	124159	51819	-	-	-	669239
1996-1997	541767	140443	56918	-	-	-	739128
1997-1998	588231	156294	61886	-	-	-	806411
1998-1999	636415	175525	65966	-	-	-	877906
1999-2000	684401	195374	70428	100	-	-	950203
2000-2001	769000	214000	67000	1000	-	-	1051000
2001-2002	833979	243887	72555	1558	-	-	1151979
2002-2003	907946	271526	76923	3957	-	-	1259798
2003-2004	979195	298060	83997	5714	-	-	1366412
2004-2005	1041732	325089	90506	7684	-	-	1465013
2005-2006	1110175	355958	98511	19254	-	-	1583898
2006-2007	1239900	395508	107467	28898	-	-	1771773
2007-2008	1350187	433887	117142	38607	-	-	1939823
2008-2009	1458743	466355	127053	49522	-	-	2101673
2009-2010	1556560	510954	137523	58405	-	-	2263442
2010-2011	1563290	190596	149725	59086	369703	-	2332400
2011-2012	1563307	206213	162615	59171	369703	-	2361009
2012-2013	1565801	207938	177974	59725	369703	-	2381141
2013-2014	1722712	318435	192943	96492	472602	-	2803184
2014-2015	1897316	399540	209489	119483	533273	-	3159101
2015-2016	2023005	489519	223784	128893	602074	3082	3470357
2016-2017	2734546	492678	223715	128589	602074	3073	4184675
up to Dec,17	2734709	492204	223683	128185	602079	3072	4183932

Source : Production & Marketing Division, Petrobangla.

Natural Gas Reserve of Bangladesh

(As of 31 December, 2017)

Figure in BCF

SL No.	Fields	Year of Discovery	Reserve Estimated By		GIIP	Proved (1P)	Proved + Probable (2P)	Proved + Probable + Possible (3P)	Cumulative Production (Dec, 2017)	Remaining Reserve w.r.t 2P (Jan, 2018)
			Company	Year						
A. Producing										
1.	Titas	1962	RPS Energy	2009	8148.9	5384.0	6367.0	6517.0	4422.30	1944.70
2.	Habiganj	1963	RPS Energy	2009	3684.0	2647.0	2647.0	3096.0	2353.34	293.66
3.	Bakhrabad	1969	RPS Energy	2009	1701.0	1052.9	1231.5	1339.0	816.13	415.39
4.	Kailashtilla	1962	RPS Energy	2009	3610.0	2390.0	2760.0	2760.0	671.14	2088.86
5.	Rashidpur	1960	RPS Energy	2009	3650.0	1060.0	2433.0	3113.0	605.89	1827.11
6.	Sylhet/Haripur	1955	RPS Energy	2009	370.0	256.5	318.9	332.0	213.58	105.32
7.	Meghna	1990	RPS Energy	2009	122.1	52.5	69.9	101.0	65.95	3.95
8.	Narshingdi	1990	RPS Energy	2009	369.0	218.0	276.8	299.0	191.16	85.64
9.	Beani Bazar	1981	RPS Energy	2009	230.7	150.0	203.0	203.0	98.97	104.03
10.	Fenchuganj	1988	RPS Energy	2009	553.0	229.0	381.0	498.0	154.98	226.02
11.	Shaldanadi	1996	RPS Energy	2009	379.9	79.0	279.0	327.0	89.23	189.77
12.	Shahbazpur*	1995	Petrobangla	2011	677.0	322.0	390.0	488.0	38.91	351.09
13.	Semutang	1969	RPS Energy	2009	653.8	151.0	317.7	375.1	12.64	305.06
14.	Sundalpur Shahzadpur	2011	BAPEX	2012	62.2	25.0	35.1	43.5	9.98	25.12
15.	Srikail	2012	BAPEX	2012	240.0	96.0	161.0	161.0	68.03	92.40
16.	Begumganj	1977	BAPEX	2014	100.0	14.0	70.0	-	0.88	69.12
17.	Rupganj	2014	BAPEX	2014	48.0	-	33.6	-	0.68	32.92
18.	Jalalabad	1989	D & M	1999	1491.0	823.0	1184.0	1184.0	1140.68	43.32
19.	Moulavi Bazar	1997	Unocal	2003	1053.0	405.0	428.0	812.0	302.89	125.11
20.	Bibiyana	1998	D & M	2008	8350.0	4415.0	5754.0	7084.0	2972.46	2781.54
21.	Bangura	2004	Tullow	2011	1198.0	379.0	522.0	941.0	394.26	127.74
Sub-total A:					36691.6	20148.9	25862.5	29673.6	14624.63	11237.89
B. Non-Producing										
22.	Kutubdia	1977	HCU	2003	65.0	45.5	45.5	45.5	0.00	45.5
Sub-total B:					65.0	45.5	45.5	45.5	0.00	45.5
C. Production Suspended										
23.	Chattak**	1959	HCU	2000	1039.0	265.0	474.0	727.0	26.46	447.54
24.	Kamta	1981	Niko/Bapex	2000	71.8	50.3	50.3	50.3	21.1	29.20
25.	Feni	1981	Niko/Bapex	2000	185.2	125.0	125.0	175.0	62.4	62.60
26.	Sangu***	1996	Cairn/Shell	2010	899.6	544.4	577.8	638.7	487.91	89.85
Sub-total C:					2195.6	984.7	1227.1	1591.0	597.9	629.2
Grand Total (A+B+C) in BCF					38952.2	21179.1	27135.09	31310.1	15221.93	11912.59
Grand Total (A+B+C) in TCF					39.0	21.2	27.14	31.31	15.22	11.91

Note: * Reserve evaluation of Shahbazpur East-1 is underway by BAPEX which will be included in Shahbazpur Field.

** Reserve of Chattak Gas Field is under re-evaluation due to excessive seepage caused by the two consecutive blowouts in 2005.

*** Production from Sangu Gas Field suspended since 1st October, 2013.

Source : Reservoir and Data Management Division, Petrobangla.



Major Gas Transmission Pipelines and Flow Capacity

Company	Name of The Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)
TGDCL	01 Titas - Dhaka	14	81.80	1000	175
	02 Titas - Narshingdi	16	46.31	1000	265
	03 Narshingdi - Joydevpur	14	37.51	1000	220
	04 Narshingdi - Ghorasal	14	10.30	1000	220
	05 Habiganj - Ashuganj	12	57.75	1000	85
	06 Monohardi - Narshingdi	20	24.50	1000	300
	07 Monohardi - Kishorganj	4	35.00	1000	6
	08 Ashuganj V.S. # 3 - ZFCL	10	4.00	1000	95
	09 Elenga - Tarakandi	12	42.41	1000	80
	10 Dhonua - Mymensingh	12	56.70	1000	55
	11 Tarakandi - Jamalpur	8/6	21.00	1000	25
	12 Mymensingh - Netrokona	8/6	40.00	1000	60
GTCL	13 North South	24	175.00	1050	330
	14 Ashuganj - Bakhrabad 1 58.5	30	58.50	1000	425
	15 Bangabandu Bridge	30	9.00	1000	300
	16 Elenga - Nalka	24	28.50	1000	250
	17 Nalka - Baghabari	20	35.50	1000	250
	18 Beanibazar - Kailashtila	20	18.00	1050	250
	19 Ashuganj - Habiganj	30	54.00	1050	500
	20 Rasidpur - Habiganj	30	28.00	1050	500
	21 Nalka - Hatikumrul	30	6.00	1000	425
	22 Hatikumrul - Bogura	20	54.00	1000	225
	23 Monohardi - Dhanua Elenga Pipeline (1st Phase)	30	51.00	1000	500
	24 Bakhrabad - Demra	20	68.72	1000	250
	25 Bakhrabad - Chattogram	24	174.65	1000	300
	26 Ashuganj - Elenga	24	124.00	960	330
	27 Ashuganj - Monohardi	20	37.00	1000	425
	28 Dhaka Clean Fuel (GTCL Part)	20	60.00	1000	230
	29 Bonpara - Rajshahi	12	53.00	1000	150
	30 Hatikumrul - Bheramara	30	84.00	1000	400
	31 24" Dia 8 Km From Titas Gas Field - AB Pipeline Project	24	8.00	1050	330
	32 Srikail Gas Field (Location 2) - AB Pipeline Project	20	1.50	1000	250
	33 Bibiyana - Dhanua	36	137.00	1000	640
	34 Bakhrabad - Siddhirganj	30	60.00	1000	450
	35 Gas transmission pipeline from Titas Gas Field (Location-G) to AB Pipeline	24	8.00		100
	36 Ashuganj - Bakhrabad 2	30	61.00	1000	450
37 Bheramara-Khulna	20	163.06	1000	200	
38 Titas Gas Field well no. 23,24 (Sorail) to Khatihata and well no. 25,26 (Malihata) to Khatihata gas transmission pipeline	20	3.3	1000	100	
KGDCL	39 Chattogram Ring Main	24/20/16	59.48	350	330
	40 KPM Spaur	8	36.15	350	18
	41 Chattogram - Rauzan	20	18.00	350	150
	42 Semutang - Chattogram	10	56.00	960	70
JGTDSL	43 Haripur - NGFF	-	43.00	1000	62
	44 Kailashtila - Kuchai	8	13.00	1000	62
	45 Kuchai - Chatak	6	39.00	1000	36
	46 Devpur - Kumargaon	6	11.00	1000	36
	47 Habiganj - Shahji Bazar	8	2.00	1000	53
	48 Shahaji Bazar - Shamsher Nagar	6	65.00	1000	11
	49 Srimongal - Moulavi Bazar	6	26.00	1000	11
	50 Chatak - Tengratila	4	19.00	1000	10
	51 Tengratila - Sunamganj	4	13.00	1000	10

Category-wise Annual Gas Sales

(FY 1990-91 to FY 2016-17) Gas Volume In Billion Cubic Feet (BCF)

Year	Gas Production	BULK SALES				Non Bulk Sales						Total Sales	UFG	Total Production
		Power	Ferti-lizer	Sub. Total	Industry	Domestic	Comme-rcial	Tea/ CNG	Brick Field	Sub Total				
											Gas Volume In Billion Cubic Feet (BCF)			
1990-91	172.8	82.6	54.2	136.8	13.2	10.5	2.9	0.7	0.0	27.3	164.1	8.7	172.8	
1991-92	188.5	88.1	61.6	149.7	13.4	11.6	2.9	0.7	0.2	28.8	178.3	10.2	188.5	
1992-93	211.0	93.3	69.2	162.5	15.2	13.5	2.4	0.7	0.2	32.0	194.3	16.7	211.0	
1993-94	223.8	97.3	74.5	171.8	20.3	15.4	2.9	0.7	1.1	40.4	211.0	12.8	223.8	
1994-95	247.4	107.4	80.5	187.9	24.2	18.9	2.9	0.6	1.1	47.7	234.5	12.9	247.4	
1995-96	265.5	110.9	91.0	201.9	27.3	20.7	3.0	0.7	1.0	52.7	253.6	11.9	265.5	
1996-97	261.0	110.8	77.8	188.6	28.6	22.8	4.5	0.7	0.5	57.1	245.3	15.7	261.0	
1997-98	282.0	123.6	80.1	203.7	32.3	24.9	4.6	0.7	0.4	62.9	266.2	15.8	282.0	
1998-99	307.5	140.8	82.7	223.5	35.8	27.0	4.7	0.7	0.4	68.6	291.8	15.7	307.5	
1999-00	332.4	147.6	83.3	230.9	41.5	29.6	3.9	0.6	0.4	76.0	306.5	25.9	332.4	
2000-01	372.2	175.3	88.4	263.7	48.0	31.9	4.1	0.7	0.5	85.1	348.3	23.9	372.2	
2001-02	391.5	190.0	78.8	268.8	53.6	36.7	4.3	0.7	0.5	95.8	364.1	27.4	391.5	
2002-03	421.2	190.5	95.9	286.4	63.8	44.8	4.6	0.9	0.1	114.6	400.5	20.7	421.2	
2003-04	452.8	*231.4	92.8	324.2	46.5	49.2	4.8	2.7	0.1	103.3	427.5	25.3	452.8	
2004-05	486.8	*248.9	94.0	342.9	51.7	52.5	4.9	4.4	0.0	113.5	456.3	30.5	486.8	
2005-06	527.0	*273.3	89.09	362.39	63.3	56.7	3.3	7.6	0.0	130.9	493.3	33.7	527.0	
2006-07	562.2	*314.6	62.5	377.1	77.5	63.3	5.7	12.8	0.0	159.3	536.2	26.0	562.2	
2007-08	600.9	*314.5	78.7	393.2	92.2	69.0	6.6	23.6	0.0	191.4	584.6	16.3	600.9	
2008-09	653.8	*351.0	74.9	425.9	104.4	73.8	7.5	31.7	0.0	217.4	643.2	10.6	653.8	
2009-10	703.6	*395.8	64.7	460.5	118.8	82.7	8.1	40.1	0.0	249.7	710.2	(6.6)	703.6	
2010-11	708.9	*395.0	62.8	457.8	121.5	87.4	8.5	39.3	0.0	256.7	714.5	(5.6)	708.9	
2011-12	743.7	*427.9	58.4	486.3	128.5	89.2	8.6	39.4	0.0	265.7	751.7	(8.0)	743.7	
2012-13	800.6	*462.9	60.0	522.9	135.7	89.7	8.8	41.0	0.0	275.2	798.2	2.4	800.6	
2013-14	820.4	*481.2	53.8	535.0	141.9	101.5	8.9	40.9	0.0	293.2	828.1	(7.7)	820.4	
2014-15	892.2	*504.8	53.8	558.6	147.7	118.2	9.1	43.7	0.0	318.7	877.3	14.9	892.2	
2015-16	973.2	*560.4	52.6	613.0	156.0	141.5	9.0	47.4	0.0	353.9	966.9	5.6	972.5	
2016-17	971.6	564.1	49.1	613.2	163.1	154.4	8.7	47.0	1.0	374.1	987.3	(19.6)	967.7	
July-Dec,17	490.0	284.5	25.0	309.5	82.4	78.5	4.3	23.4	0.7	189.2	498.8	(9.4)	489.4	

* Including Captive Power

UFG : Un-accounted For Gas (System Loss Plus Pilferage/system Gain)

Source : Production & Marketing Division, Petrobangla.



Payment to National Exchequer

Taka in Million

Year	SD+VAT	DSL	Income Tax	Dividend	CD/Others	Royalty	Total
1997-98	8431.1	2745.7	862.8	1000.1	404.1	-	13443.8
1998-99	9116.9	2984.9	1030.6	1500.0	168.0	-	14800.4
1999-00	8618.9	3253.3	1105.1	1150.0	131.9	-	14259.2
2000-01	11049.2	2503.8	1142.1	1058.6	93.0	-	15846.7
2001-02	10541.3	3327.3	917.2	1428.9	122.6	-	16337.3
2002-03	15576.4	3395.9	1456.8	1499.8	684.7	-	22613.7
2003-04	18235.2	3708.9	1620.4	1750.0	393.5	-	25708.0
2004-05	18481.0	3681.1	2530.6	2000.0	596.2	-	27288.8
2005-06	18526.7	3440.0	3597.8	2154.8	383.2	12.5	28115.0
2006-07	18801.5	4145.5	3665.1	2500.0	329.2	12.6	29453.9
2007-08	17900.6	3223.4	6490.5	-	350.1	60.9	28025.4
2008-09	19313.5	3533.0	7507.6	1715.3	554.7	6.3	32630.3
2009-10	20064.7	3331.2	10057.5	3281.6	2211.1	655.3	39601.3
2010-11	21625.5	3209.0	11050.9	4198.4	884.2	714.0	41682.0
2011-12	26668.1	2989.3	9378.9	3875.8	1470.6	1000.6	45383.3
2012-13	23861.6	3350.1	14257.2	8395.8	4596.4	1404.7	55865.8
2013-14	31616.0	2856.3	11854.2	4460.8	1443.0	1549.1	53779.4
2014-15	37498.6	2392.3	9471.7	11009.0	1425.4	245.5	62042.5
2015-16	48432.4	3269.4	15523.8	6900.9	744.2	345.2	75215.9
2016-17	93498.2	7589.7	20206.5	9089.1	1258.9	252.4	131894.9

Source: Accounts Division, Petrobangla.



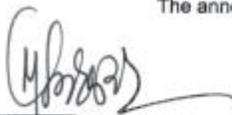
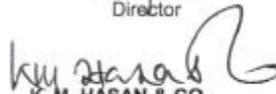
Geological Field Work by BAPEX

Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

Statement of Financial Position
As at 30 June 2017

	2017 BDT	2016 BDT
Assets		
Non-current assets		
Property, plant and equipment	330,338,406	298,078,828
Minor capital project (capital work-in-progress)	3,436,809	45,900,440
Assets held under SPMC project	26,041,845	26,041,845
	359,817,060	370,021,113
Investments		
Investment in enterprises	4,196,580	4,196,580
Investment in FDRs	89,779,120,662	83,806,042,827
Investment in shares	18,482,000	18,482,000
	89,801,799,242	83,828,721,407
Current assets		
Group current account	15,381,497,867	14,351,551,466
Accounts receivable	33,124,905,545	36,752,863,468
Advances, deposits and prepayments	500,861,123	340,147,586
Loans and advances to employees	340,665,229	330,478,416
Cash and cash equivalents	25,654,060,922	14,278,769,550
	75,001,990,686	66,053,810,486
Total assets	165,163,606,988	150,252,553,006
Equity and liabilities		
Capital and reserves		
Paid-up capital	1,500,000	1,500,000
Capital reserve	18,386,929,238	17,637,070,419
Revenue reserve	18,992,895,761	51,317,081,090
Gas Development Fund	50,268,686,217	34,511,371,478
	87,650,011,216	103,467,022,987
Long-term liabilities		
Long-term borrowings	39,275,956	39,275,956
Other long-term liabilities	107,647,872	107,307,911
	146,923,828	146,583,867
Current liabilities		
Accounts payable	75,957,733,055	45,159,574,417
Deferred income	26,041,845	26,041,845
Suspense account	1,381,089,308	1,178,700,711
Accruals and provisions	1,807,736	274,629,179
	77,366,671,944	46,638,946,152
Total equity and liabilities	165,163,606,988	150,252,553,006

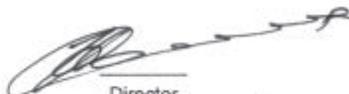
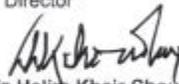
The annexed notes form an integral part of these financial statements


Director

K. M. HASAN & CO.
Chartered Accountants

Place: Dhaka
Date: 10 May 2018



Signed in terms of our separate report of even date annexed.


Director

Aziz Halim Khair Choudhury
Chartered Accountants



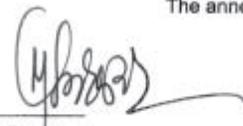


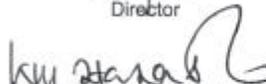
Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

Statement of Profit or Loss and Other Comprehensive Income
For the year ended 30 June 2017

	2017 BDT	2016 BDT
Income		
Sales proceeds from IOC gas and condensate	45,920,583,531	48,322,991,283
Transport fare recovery	629,482	664,166
Rental income	13,550,861	11,310,856
Miscellaneous income	100,000	900,042
	45,934,863,874	48,335,866,348
Expenditure		
Cost of sales of gas and condensate	66,462,674,734	68,407,936,369
Personnel expense	853,612,522	640,629,316
Professional services	17,838,213	9,976,095
Promotional expense	5,836,746	8,978,653
Power expense	4,238,763	5,319,231
Communication expense	1,419,167	1,491,688
Transport expense	28,155,675	29,753,247
Occupancy expense	27,491,436	25,305,554
Financial expense	568,863	548,705
Administrative expense	4,857,817	5,943,056
Miscellaneous expense	107,332,388	105,115,005
Depreciation	27,184,018	19,062,034
	67,541,210,342	69,260,058,953
Sub-Total expenditure	67,541,210,342	69,260,058,953
Petrobangla actual cost recovery	(1,003,602,000)	(834,222,000)
Total Expenditure	66,537,608,342	68,425,836,953
Operating profit/(loss)	(20,602,744,469)	(20,089,970,604)
Non-operating income		
Interest on short term deposit	62,634,267	68,346,369
Interest on house building loan	13,239,400	11,971,059
Interest on motor cycle loan	289,566	342,801
Interest on computer loan	73,750	92,250
PSC financial income from STD bank account	530,000,000	500,000,000
PSC financial income from FDR	1,253,137,373	1,626,162,275
Other non-operating income	779,370	-
	1,860,153,726	2,206,914,754
Total non-operating income	1,860,153,726	2,206,914,754
Net surplus/(deficit)	(18,742,590,743)	(17,883,055,851)
Appropriation account		
Un-appropriated surplus brought forward	(48,261,794,428)	(30,547,281,756)
Prior year's adjustment	58,430,680	89,061,454
Prior year's adjustment for PSC	(17,479,638,879)	79,481,725
Surplus/(deficit) for the year	(18,742,590,743)	(17,883,055,851)
	(84,425,593,368)	(48,261,794,428)

The annexed notes form an integral part of these financial statements


Director


K. M. HASAN & CO.
Chartered Accountants

Place: Dhaka
Date: 10 May 2018



Signed in terms of our separate report of even date annexed.


Director


Aziz Halim Khair Choudhury
Chartered Accountants





Annual Report 2017

Publication Committee

- | | |
|-------------------------|---|
| Convener | Md. Mahbub Sarwar
Director (PSC), Petrobangla |
| Member | Syed Ashfaquzzaman
Secretary, Petrobangla |
| Member | Tofayel Ahmed
General Manager (Finance), Petrobangla |
| Member | Engr. Md. Zahirul Islam
General Manager (Strategic Planning & Resource Mobilisation), Petrobangla |
| Member | Shahnewaz Parvez
General Manager (Contract), Petrobangla |
| Member | Md. Anwarul Islam
General Manager (Production & Marketing), Petrobangla |
| Member Secretary | Md. Javed Ibne Shahed
Dy. General Manager (Public Relations), Petrobangla |
| Member | Tariqul Islam Khan
Manager (Public Relations), Petrobangla |

PETROBANGLA

