

PETROBANGLA



# Annual Report 2019



**PETROBANGLA**

Bangladesh Oil, Gas and Mineral Corporation



On the occasion of Birth Centenary  
Profound Respect and Gratitude to the  
Greatest Bengali of all time  
Father of the Nation  
Bangabandhu Sheikh Mujibur Rahman



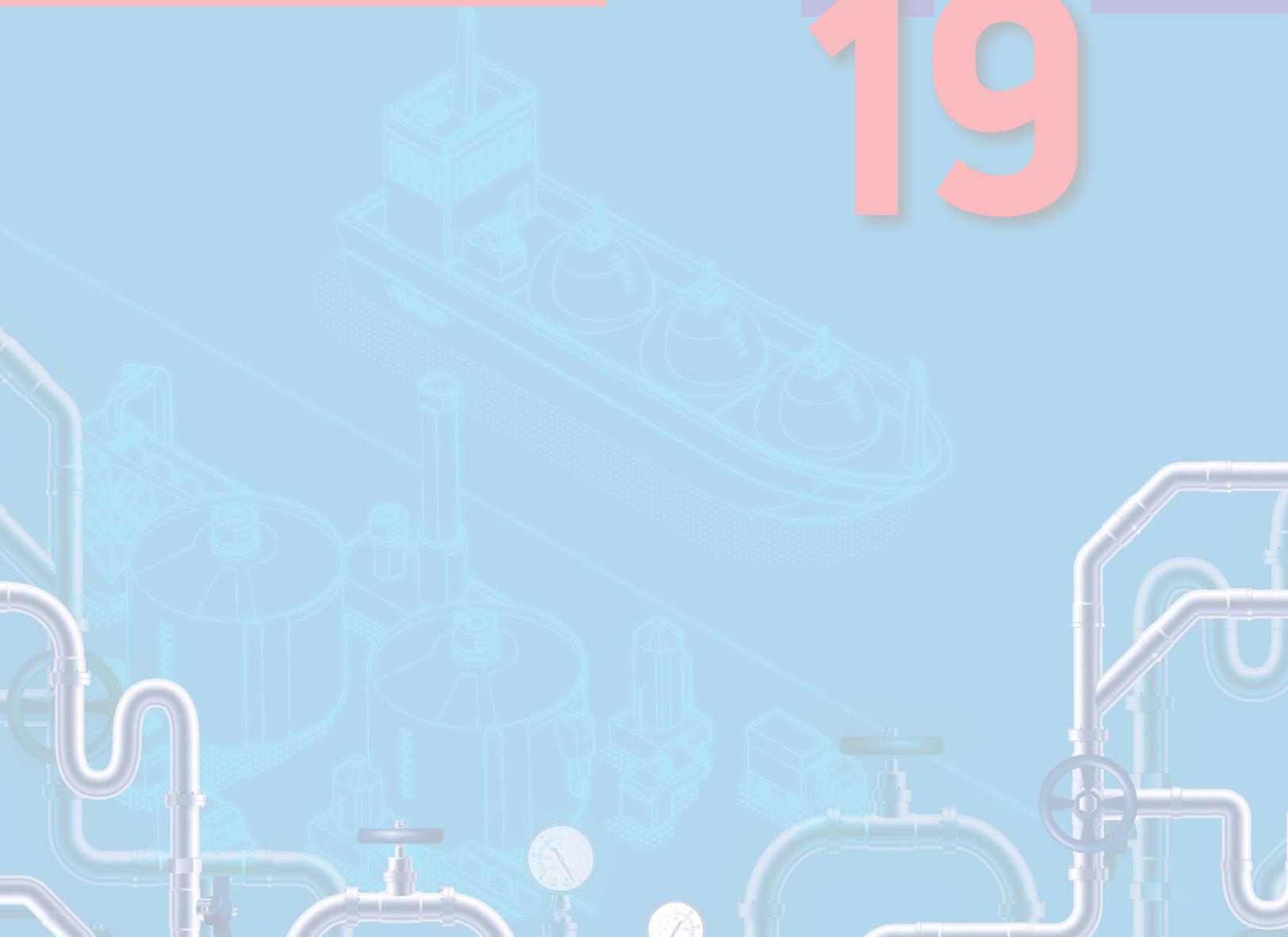


# PETROBANGLA

Bangladesh Oil, Gas and Mineral Corporation

Annual  
Report

20  
19



# CONTENTS

- 06** Message of the Adviser (Minister) to the Hon'ble Prime Minister
- 07** Message of the Hon'ble State Minister, MoPEMR
- 08** Message of the Senior Secretary, EMRD
- 09** Introduction by Chairman, Petrobangla
- 13** Board of Directors (Incumbent)
- 14** Past and Present Chairmen of Petrobangla
- 15** The Genesis
- 16** Functions and Powers of Petrobangla
- 17** Petrobangla and the Government
- 18** A Brief History of Oil, Gas and Mineral Industry in Bangladesh
- 21** Activities of Petrobangla
- 40** Companies of Petrobangla
- 60** Development Programmes for FY 2018-19
- 65** Future Programmes
- 66** Plan for Production Augmentation
- 67** Data Sheets
- 75** Statement of Profit or Loss and Other Comprehensive Income
- 77** Statement of Financial Position
- 79** Statement of Cash Flows



## Our VISION

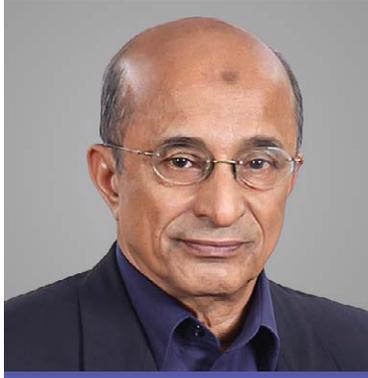
To provide energy for sustainable economic growth and maintain energy security of the country



## Our MISSION

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

## Message



### Tawfiq-e-Elahi Chowdhury, BB, PhD

Adviser (Minister) to the Hon'ble Prime Minister  
Power, Energy & Mineral Resources Affairs  
Govt. of the People's Republic of Bangladesh.

Father of the Nation, Bangabandhu Sheikh Mujibur Rahman laid the foundation of the energy security of independent Bangladesh. He bought five gas fields from Shell Oil at a nominal price on 9<sup>th</sup> August, 1975. For decades the country has relied upon these fields to support the forward march of the country. In the course of time, under the leadership of Hon'ble Prime Minister Sheikh Hasina with steady economic development, Bangladesh has already been recognized as a role model for developing countries.

Petrobangla and its companies have been playing a pioneering role in energy sector of the country. Even during the COVID-19 pandemic, they are trying to ensure uninterrupted production, transmission and distribution of gas.

It is important to introduce innovative ideas for enhancing efficiency, providing better services and creating awareness of responsible use of energy among the consumers to ensure energy security of the country in future.

I wish every success of this Annual Report, 2019.

Joy Bangla, Joy Bangabandhu

Long Live Bangladesh

Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram



## Message



### Nasrul Hamid MP

State Minister

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

It is an auspicious year for our nation as we are celebrating the "Mujib-Borsho", the Birth Centenary of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, who emerged as a leader through life-long struggle and loved the people of this country from the core of his heart. I pay my profound tribute to the Father of the Nation during the celebration of his Birth Centenary.

Energy is vital for economic growth in any country and a key ingredient in improving the socioeconomic conditions in poorer ones. Bangladesh has experienced rapidly rising energy consumption over the past one decade. This trend will intensify further in the coming years as economic growth and development efforts accelerate - Bangladesh strives to become a middle-income country by 2021 and a developed country by 2041. Energy supply must thus increase rapidly in order to sustain the country's growth momentum.

To augment the production of indigenous gas, short, medium and long-term exploration plans have been undertaken in both land and sea areas. As a result, the gas production in the country has now risen to about 2,650 MMscfd which was 1,744 MMscfd in January 2009. We have framed the Onshore Model PSC 2019 and the Offshore Model PSC 2019 to start new rounds of bidding for open blocks. At this moment we have planned to start new bid round for offshore areas in the country as most of the areas are still unexplored. In addition, a project for conducting 2D Multi Client Seismic Survey to get an idea of the offshore geology is being implemented. As the supply from domestic natural gas is unable to meet the ever-increasing demand for energy, 2 FSRUs with a capacity of 500 MMscfd each have been installed at Moheskhal, which are adding R-LNG to the national gas grid. Further, to install a land-based LNG terminal at Matarbari, Cox's Bazar having the capacity of 1,000 MMscfd, activities such as the feasibility study and the terminal developer selection are currently in progress. Other than 2 long-term contracts with

QatarGas and Oman Trading International (OTI), master sale and purchase agreements (MSPA) have been signed with 14 nos. renowned LNG suppliers/traders to supply LNG on spot basis. To prevent wastage of gas, improve energy efficiency, reduce monitoring costs and supply corrected volume of gas, pre-paid gas meters and electronic volume corrector (EVC) meters are being installed. Two Feasibility study projects for extension of existing underground mining operation of Barapukuria coal mine and development of Dighipara coal field have been completed.

Amidst COVID-19 situation, it is a difficult challenge ahead of us to implement adopted plans in time and also to maintain the activities of gas exploration, production, transmission, distribution, LNG importation and coal production with a view to ensuring the country's energy security as well as maintaining the economic development. I hope every employee of Petrobangla and its associate organizations will do their best to do so.

I am confident that the robust growth attained by the energy sector due to the pragmatic policy of the government led by Hon'ble Prime Minister Sheikh Hasina will open up a new vista of economic development leading the country to achieve the status of a middle-income country within 2021.

I express my felicitations to the officials associated with the effort of publication of the Annual Report, 2019. I wish continuous progress of Petrobangla in the days to come.

Joy Bangla, Joy Bangabandhu.

Long Live Bangladesh.

Nasrul Hamid, MP

## Message



### Senior Secretary

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

I am happy to know that Annual Report 2019 of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) highlighting its activities for the financial year 2018-19, is going to be published. The report consists of diversified activities undertaken by Petrobangla along with its 13 companies and its future plans and priorities. My heartiest thanks and gratitude to all of its officials contributed in publishing the time demanding Annual Report.

The indispensable role of energy, a global commodity, in shaping the world economy has also been widely acknowledged. Energy enhances the productivity of other non-energy factors of production and also contributes towards improvement in the living standard of the people, apart from playing its ultimate role in dictating the development process within an economy. It is a prime task for a growing economy like Bangladesh to tap all possible options that are optimal for the development of its energy sector. The development of energy sector will not only elevate the economy to a higher status but also upsurge productivity and efficiency that will boost the overall economic achievement of Bangladesh.

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. The Energy Division is taking numerous initiatives for enhancing and ensuring energy security to keep the pace of development moving. Petrobangla, the flagship organization in the country's primary energy sector, 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 capability of natural gas. In addition to its endeavor for boosting production and supply of gas from domestic sources, Petrobangla has already installed 2 FSRUs at Moheshkahali for regasifying imported LNG to ease the demand and supply gap of gas. Mining of coal and granite are also contributing in power and construction sector respectively. Thus Petrobangla is a major contributor to the national exchequer of fuel which is leading to ensure our national energy security.

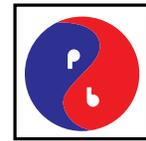
It may be noted that, success of Petrobangla in one hand contributing to a great extent towards achieving 'Vision 2021' and on the other hand saving foreign currencies that is to be paid for importing petroleum products to keep on running production viz-a-viz development of the country to reach in the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

We know, like most of the other nations, the outbreak of the COVID-19 pandemic is an unprecedented shock to the Bangladesh economy. Post-pandemic solutions of unique problems we are facing in COVID-19 pandemic may lay foundation for many business ideas. Petrobangla must keep on closely monitoring these new ideas and has to choose the best opportunity at the right time so that it can get maximum benefit.

I firmly believe that Petrobangla will play a greater role in catapulting our economy to a higher growth trajectory. I wish continuous progress of Petrobangla in the coming days.

  
(Md. Anisur Rahman)

# Introduction



**Chairman**  
Petrobangla

The year 2020 is very significant in our national life. "Mujib-Borsho", the Birth Centenary of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, the greatest Bengali of all time, is being celebrated this year while the year 2021 will mark the Golden Jubilee of our glorious independence, which is a rare occasion in our national history.

At this auspicious moment, I am pleased to present the Annual Report, 2019 of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) for the financial year (FY) 2018-19. It provides an overview of the key activities, projects and performances of the corporation in the financial year, 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 supply in the country.

After the independence of Bangladesh in 1971, the great dreamer of self-reliant Bangladesh, the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman desired to ensure the energy security of the country. He took over 5 gas fields (namely - Titas, Habiganj, Rashidpur, Kailashtila and Bakhrabad) from 'Shell Oil' at a nominal price on 9 August, 1975. Today, even after 45 years of production, the remaining gas reserve of these fields at about 5.82 TCF which worth about Taka 1 lakh 60 thousand crore (about US\$18.81 billion). The strong foundation of our

economy has been established based on these gas fields.

The possibility that was ignited by the father of the nation has been propelled by his competent daughter, Hon'ble Prime Minister Sheikh Hasina. In the course of time, under the leadership of Hon'ble Prime Minister Sheikh Hasina, Bangladesh has made significant progress from socio-economic standpoint such as increased per capita income level, life expectancy, literacy rate, self-sufficiency in food production, poverty reduction, etc. and now known as the new "Asian Tiger" as well as a new wonder of the world economy for its remarkable development. Its GDP is growing steadily at a higher rate every year, and that growth has elevated millions of people out of poverty. Based on these socio-economic indicators, in 2017, the World Bank has declared Bangladesh as a lower-middle-income country. With an aspiration to become an upper-middle-income country by 2021, a high-income country by 2041, and to end extreme poverty by 2030, it is essential to optimize utilization of her energy resources efficiently. Booming economic growth, rapid urbanization, and expanding industrialization and development have increased the country's demand for energy.

Indigenous natural gas has been playing very important role in the economy of Bangladesh since the early 1960's. 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. We are aware that, the outbreak of COVID-19 pandemic has virtually stalled most of the activities around the globe. As the global economy is facing the 'Great lockdown' recession caused by the COVID-19 pandemic, the economy of Bangladesh too, has been hit hard and jeopardized the country's impressive achievements in poverty reduction. It is indeed a great challenge to ensure uninterrupted supply of natural gas to sustain the economic growth of the country against the backdrop of sharply rising demand as well as outbreak of COVID-19.

Bangladesh Oil, Gas and Mineral Corporation (Petrobangla), the flagship organization in the country's primary energy sector, entrusted with the responsibilities of exploration, production, transportation and marketing of natural gas along with extracting mineral resources in the country, has been continuing its endeavors for making natural gas available to its consumers at a reasonable price as well as playing a vital role in fueling the economy. Along with its traditional role of producing and supplying fuel from the indigenous sources, Petrobangla has been acting as an importer and marketer of Liquefied Natural Gas (LNG) from August, 2018 in order to supplement indigenous natural gas to meet the demand.

In the FY 2018-19, Petrobangla and its companies produced 961.7 billion cubic feet (BCF) of natural gas, which was equivalent to 24.04 million metric tons of oil worth 11.06 billion USD. Besides, about 4.1 million barrels of condensate was extracted from natural gas in this timespan. 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, BCMCL extracted about 8,05,696 metric tons of coal in 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 11.44 billion USD in aggregate to the energy basket of the country in FY 2018-19.

Total initial recoverable proven plus probable gas reserve of 27 fields, discovered so far in the country, has been estimated to be at 28.00 trillion cubic feet (TCF); out of this estimated proven recoverable reserve (P1) is 20.90 TCF while the recoverable probable (P2) reserve is 7.10 TCF. Up to December, 2019 as much as 17.37 TCF gas was produced, leaving only 10.63 TCF of recoverable gas in 2P category. Currently, 20 gas fields are in production with 113 wells on-stream. Gas supply in the country increased from 600.86 BCF in FY 2007-08 to 1,041.79 BCF including R-LNG in FY 2018-19 due to various development programmes undertaken by Petrobangla during this period. Of this production, grid power consumed the largest share, about 450.88 BCF (43.28%) followed by captive power and industry which consumed 157.52 BCF (15.12%) and 164.51 BCF (15.79%) respectively; fertilizer 57.67 BCF (5.54%), domestic 158.88 BCF (15.25%), CNG 43.37 (4.16%) and commercial and tea-estates together 8.95 BCF (about 0.9%) in FY 2018-19.

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 came to power in 2009. Since then, 4 new gas fields (Sundalpur, Srikail, Rupganj and Bhola North) have been discovered, 22 new gas structures have been delineated; 18 exploration and 49 development wells have been drilled, and workover of 41 wells have been completed. These activities

added a gross flow capacity of 1,506 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 2 gas fields. As a result, gas supply including regasified LNG has risen to more or less 3,250 MMscfd. At the same time, a total of 1,159 km transmission pipelines has been laid under different projects in addition to installation of 3 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) along with Bangladesh Gas Fields Company Limited (BGFCL), Sylhet Gas Fields Limited (SGFL) and International Oil Companies (IOCs) have embarked on implementation of extensive exploration programmes that include drilling of 11 exploration wells, 30 work-over wells and 7 development wells during 2018 to 2023. Other than this, BAPEX has conducted 3,000 line-kilometer (lkm) of 2D seismic survey from 2017 to 2019 in the onshore.

In order to reduce overwhelming dependence on natural gas and diversify the sources of energy supply, Petrobangla has developed the first coal mine of the country at Barapukuria. At present, Barapukuria Coal Mine is producing approximately 3,000-3,500 metric tons of coal daily. About 8,05,696 metric tons of coal was produced in the FY 2018-19. Currently, the entire coal extracted from this mine is used to fuel the only coal fired 525 MW thermal power plant of the country located in Barapukuria. A feasibility study project has been completed for north-south extension of the existing mine, which suggests that about 3.2 million metric tons of coal can be extracted from northern part over 6 years and about 6.9 million metric tons from southern part over 7 years and it is expected to commence production from January, 2024. Petrobangla conducted a 1<sup>st</sup> stage feasibility

study in Dighipara Coal Field which proves the prospect of this coal field with reserve estimated as 865 million metric tons. After that, a 2<sup>nd</sup> stage project named "Techno-Economic Feasibility Study of Coal Deposit at Dighipara, Dinajpur" has been completed and according to the draft report, the total geological reserve of Dighipara coal basin is 706 million metric tons among which 82 million metric tons is extractable by underground mining.

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. In the FY 2018-19, a total 10,67,647 metric tons of granite was produced from Maddhapara Mine and 7,31,494 metric tons was sold. Considering the rise in demand, a feasibility study captioned as "Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine" has been completed within the timeframe and the consulting firm has already submitted their final report. 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 of the country from fuel shortage, Petrobangla is importing liquefied natural gas (LNG) in tandem with its endeavors to scale up exploration activities for new resources in the country. With a view to facilitating the government to attain the targets of Vision 2021, SDGs 2030, and Vision 2041, measures have been taken to accomplish all necessary activities relating to LNG including installation of floating and land based terminals. In the mean time, 2 floating storage and re-gasification units (FSRU) have been installed at Moheshkhali for supplying 500 MMscfd of regasified LNG (RLNG) each. The first ever FSRU (by EEBL) was commissioned in August, 2018 and the second FSRU (by Summit LNG Terminal Co. PVT. Ltd) in April, 2019 and RLNG is being supplied to the national grid from these 2 terminals. Further, to install a land-based LNG terminal at Matarbari, Cox's Bazar

having the capacity of handling 7.5 MTPA of LNG equivalent to 1,000 MMscfd, activities such as the feasibility study, the terminal developer selection and acquisition of land are currently in progress. In accordance with the 2 long-term sales purchase agreements (SPA), Qatar and OQ Trading are supplying LNG to the above terminals. Additionally, master sale and purchase agreements (MSPA) have been signed with 14 nos. renowned LNG suppliers/traders to supply LNG on spot basis.

On the other hand, exploration in the offshore is also gathering momentum. Initial exploration activities are in progress in blocks SS-04 and SS-09. In the 1<sup>st</sup> phase ONGC Videsh Ltd. (OVL) has completed 3,008 lkm of 2D marine seismic survey data acquisition. In the 2<sup>nd</sup> phase OVL carried out 2,520 lkm 2D OBC survey. By February, 2021, OVL will drill 2 exploratory wells in block SS-04 and 1 exploratory well in block SS-09. In block SS-11 Santos conducted 3,050 lkm of 2D seismic survey in 2015. Later they conducted 305 sq. km. 3D seismic survey in May, 2017. Interpretation and integration of the 3D data sets have been completed. Santos has an obligation of drilling 1 exploratory well in block SS-11 by March, 2021.

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 (presently POSCO INTERNATIONAL Corporation) in March, 2017. Initially POSCO INTERNATIONAL 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.

Bangladesh's maritime victory over Myanmar and India have opened the door to immense possibilities for the nation. In order to attract more investment in offshore oil and gas exploration, an agreement was signed between

TGS-SCHLUMBERGER JV and Petrobangla to conduct a total of 32,000 lkm 2D Non-Exclusive Multi-Client Seismic Survey in the offshore area of Bangladesh with the object of getting an idea of the offshore geology. Simultaneously, the Onshore Model PSC 2019 and the Offshore Model PSC 2019 have already framed to start new rounds of bidding for open blocks. At this moment, it is planned to start new bid round for offshore areas in the country as most of the areas are still unexplored.

During FY 2018-19, Petrobangla group contributed to national exchequer an amount to the tune of Tk.1,14,854.7 million and saved a considerable amount of foreign exchange by substituting import of fuel.

We know, the COVID-19 pandemic has plunged many nations including Bangladesh into a new dimension of social, economic and commercial aftershocks. Amidst this unprecedented global crisis, Petrobangla is relentlessly putting its best efforts to sustain the country's economic development by ensuring uninterrupted gas supply to the stakeholders. We must have faith to ride out the storm together as one team, one Petrobangla family, while supporting the nation's economic recovery. As we are committed to the nation to realize fully the Vision 2021 and implement the agenda for 2030 for building a happy and prosperous future for the nation, and thus materialize the Father of the Nation's cherished dream of establishing Sonar Bangla.

I hope this issue of Annual Report will be helpful as a reference book and provide elements of interest for the concerned.



(A B M Abdul Fattah)

## Board of Directors (Incumbent)



**A B M Abdul Fattah**  
Chairman  
Petrobangla  
**Chairman of the Board**



**Fawzia Zafreen, ndc**  
Additional Secretary  
Planning Division  
**Director of the Board**



**Satyajit Karmaker**  
Additional Secretary  
Finance Division  
**Director of the Board**



**A. K. M Fazlul Haque**  
Additional Secretary  
EMRD  
**Director of the Board**



**Nazmul Ahsan**  
Director (Administration)  
Petrobangla  
**Director of the Board**



**Md. Harun-Or Rashid**  
Director (Finance)  
Petrobangla  
**Director of the Board**



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



**Engr. Md. Kamruzzaman**  
Director (Operation & Mines)  
Petrobangla  
**Director of the Board**



**Engr. Md. Shaheenur Islam**  
Director (Production Sharing  
Contract)  
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 - 29.11.2018
28	Md. Ruhul Amin	29.11.2018 - 29.12.2019
29	A B M Abdul Fattah	13.01.2020 - 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 Act No. LXX of 28 November, 1974, Oil and Gas Development Corporation established by the Ordinance No. XXXVII of 1961, was abolished and all its assets and liabilities were vested in the Petrobangla. On 13 November, 1976, by promulgation of the Ordinance No. LXXXVIII, 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. XXI 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 No. 11 of 28 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 :

- a. to undertake research in the field of oil, gas and minerals;
- b. to prepare and implement programmes for the exploration and development of oil, gas and mineral resources;
- c. to produce and sell oil, gas and mineral resources; and
- d. 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 :

- a. to undertake research for alternative use of natural gas;
- b. to carry out geological, geophysical and other surveys for the exploration and development of oil, gas and mineral resources;
- c. 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;
- d. to set up mining industries and to continue production and sale of mined commodities;
- e. to take up, execute and operate any project on mining and mineral development;



**BAPEX mud logging unit**

- f. 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
- g. to undertake, assist or encourage the collection, maintenance and publication of statistics, bulletins and monographs pertaining to the business of the Corporation.



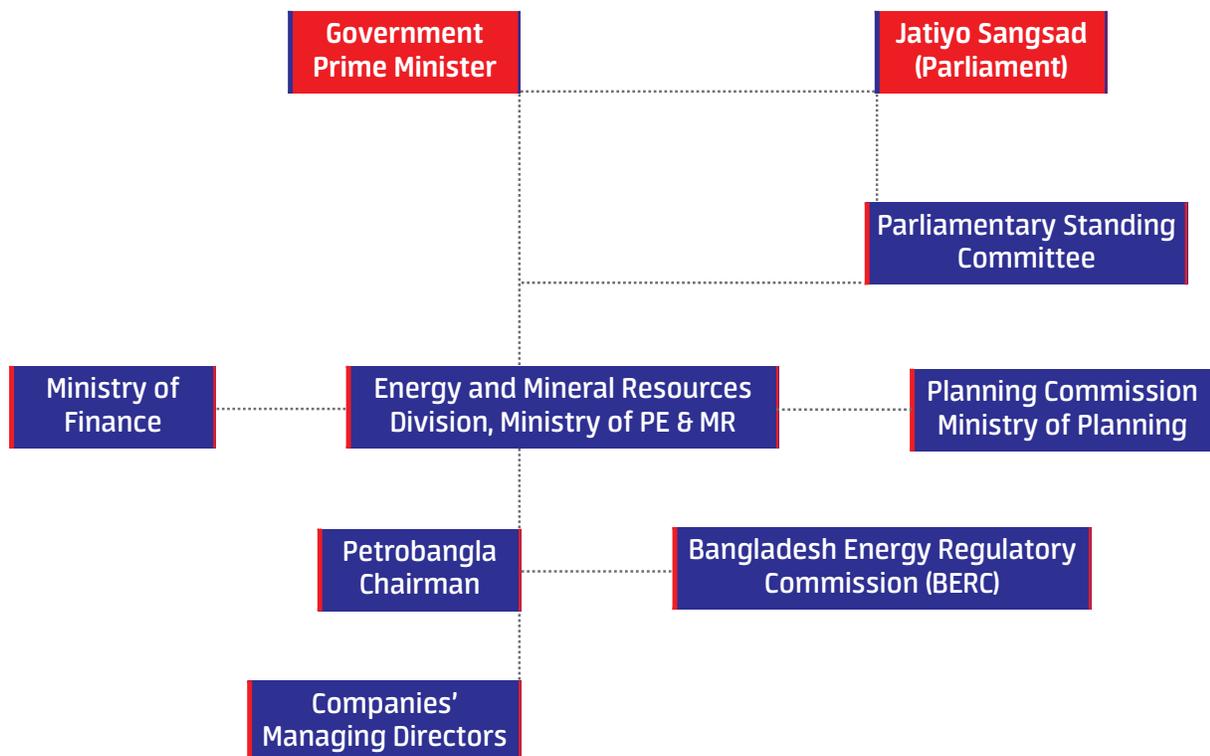
# Petrobangla and the Government

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.

## Accountability Chain



# 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 19<sup>th</sup> 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



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

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.

### **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 (presently POSCO INTERNATIONAL Corporation) Corporation in March, 2017. According to the signed PSC for blocks SS-04, SS-09 & SS-11, 4 offshore drillings were mandatory in these 3 blocks within the first Quarter of 2019. Block SS-04 and SS-09 Operator ONGC Videsh Limited has finalized 3 drilling locations already. The first well Kanchan-1 will be spudded very soon and the rest 2 wells will be drilled by February, 2021. To accomplish the above drilling programs the Government has approved the extension of the initial exploration period of the said 2 blocks by 2 years which will end on 16 February, 2021. Similarly the initial exploration period of Block SS-11 PSC has also been extended for 2 years to drill one well by March, 2021. 2D seismic survey result of deepwater block DS-12 is also enthusiastic. First phase of the initial exploration period of Block DS-12 expired on 13 December, 2019. 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, 2019 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 2019. As of December, 2019 out of 27 gas fields discovered, 21 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. To minimize the gap, LNG has been importing since August, 2018 and massive exploration programmes in both onshore and offshore areas are being implemented.

## 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 BOGC. 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, Petrobangla is set to be a importer and marketer of imported gas in the form of liquefied natural gas (LNG) from 2018 in order to supplement indigenous natural gas to meet the demand.

## Exploration

**Geological :** A total of 80 lkm of geological survey has been completed in Patharia structure of Moulvibazar district during the fiscal 2018-19 with own finance of BAPEX. A complete geological map of the Patharia structure has been prepared by analyzing the collected information and data. A geological report is being finalized analysis of the collected rock sample in the laboratory of BAPEX. During the FY, 3D seismic data collected in different times by BAPEX, based on the geological information and data of existing wells, Bhola-2 appraisal and development well, Elisha-1

exploratory well and Begumganj-4 appraisal and development well (revised) have been proposed. In addition to this, well proposal work of Shariatpur prospect is under way. On the basis integrated 2D seismic data collected from that area. As per the instructions of the Energy and Mineral Resources Division and Petrobangla, reports have been sent to Petrobangla along with the collected data as well as the results of gas sample analysis of four gas emission sites of different locations in 4 districts of the country.

Two more drilling points have primarily been determined namely, Semutang North-1 and Semutang East-1 after analyzing the existing seismic and other geological data of Semutang gas field and its surrounding areas, which will be finalized through ongoing 3D seismic data analysis. After conducting geological evaluation on the basis of seismic and geological data collected at Batchia prospect, more close-grid seismic surveys have been recommended. The reserves of Shahbazpur, Fenchuganj, Begumganj, Saldanadi, Rupganj and Sundalpur gas fields along with the Shahbazpur East-1 exploratory wells have been re-evaluated and the reserves of newly discovered Bhola North gas field have been evaluated.

A workshop was held on March 6, 2019 at Bijoy Hall of BiddutBhaban in presence of experts from various organizations related to oil & gas exploration and production. After preparing the draft Standard Operating Procedure (SOP) on the basis of the recommendations of the workshop. The views of experts of Petrobangla, GSB, BPI, hydrocarbon unit, various universities, various international oil companies operating in Bangladesh and various service companies have been taken into consideration. The SOP preparation is currently at the final stage on the basis of feedback received.

**2D Seismic Survey :** To detect the place of exploratory wells drilling under the scope of project titled "Rupkalpa-9: 2D Seismic Project" financed by gas development fund (GDF), 2,190 lkm 2D seismic data have been collected during the year in Kishoreganj, Narsingdi, Tangail, Gazipur, Netrokona, Jamalpur, Sherpur and Sunamganj districts. With a view to exploring blocks 8 and 11, a total of 3,000 lkm 2D seismic survey has been completed to till date under the project. Processing and analysis activities of the collected data is in progress. Till 30 June 2019 a total of Tk. 745.90 million has been spent out of the total allocated amount of Tk. 985.50 million in favor of the project (financial progress 75.69%).

2D seismic survey have been carried out over the exploration blocks 3B, 6B and 7 under the project of "2D Seismic Survey Over Exploration Blocks 3B, 6B and 7" with the financed of the gas development fund (GDF) by an international seismic service provider. A total of 3,000 lkm 2D seismic survey has been completed to till date. Based on the results of 2D seismic data processing and analysis, approximately 10 potential seismic leads have been identified. The identified leads will be helpful in determining exploratory well drilling locations. Till 30 June 2019, Tk. 1,501.20 million has been spent out of the allotted amount of Tk. 1,519.50 million in favor of the project (financial progress- 98.80%).

**3D Seismic Survey :** With a view to identifying new well drilling locations in the discovered gas fields/ structures, 50 sq. kms 3D seismic survey has been completed in Semutang Gas Field / Land formation in this fiscal year under the scope of the project titled "3D Seismic Project of BAPEX" financed by GDF. A total of 2,450 sq. kms 3D seismic survey has been completed under the project so far. Data analysis activities of Fenchuganj Gas Field and data processing work of Rupganj gas field is in progress. Out of the total allocated Tk. 2,303.00 million a total of Tk. 2,269.00 million has been spent till 30 June 2019 (Financial progress-98.52%).

## Drilling

### **Rupkalpa-1 Drilling Project (2<sup>nd</sup> Revised):**

With a view to implementing of Government's "Vision-2021" the project was approved by the Energy and Mineral Resources Division for drilling wells of Srikail East-1 and Salda North-1 financed by the gas development fund (GDF). Salda North-1 exploratory well was started to drill by BAPEX's Bijoy-10 rig and manpower on 11 May 2018 and the drilling work was completed up to the depth of 2,814 meters on 23 October 2018. No gas was found from the well. On the other hand, transfer of the Bijoy-10 Rig and incidental activities have been completed after finalizing the well location of Srikail East-1 exploratory well with the purpose of drilling wells including all infrastructures. Till 30 June 2019 a total of Tk. 1,075.10 million has been spent out of Tk. 1,171.00 million allocated to the project (financial progress-91.81%).

### **Rupkalpa-2 Drilling Project (1<sup>st</sup> Revised):**

The project was approved by the Department of Energy and Mineral Resources, financed by GDF for the implementation of drilling Semutang South-1 and Zakiganj-1 exploratory wells. Contractor M/s. Socar AQS started drilling of the Semutang South-1 exploratory well on 26 July 2018 on turn-key basis and completed the drilling work up to the depth of 3,020 meters on 4 January 2019. Although presence of gas was confirmed in the well, it is not commercially viable to production; therefore, the well has been kept closed. Under the project, local and foreign procurement, land development and civil construction activities have been carryout to drill the Jakiganj-1 exploratory well by BAPEX's own rig. Till 30 June 2019, a total of Tk.1,310.90 million has been spent out of the total allocated amount of Tk.1,318.30 million in favor of the project (financial progress-99.44%).

### **Rupkalpa-3 Drilling Project (1<sup>st</sup> Revised):**

The project financed by gas development fund (GDF), was approved by Energy and Mineral Resources Division for the drilling of Kasba-1 and Madarganj-1 exploration wells. Kosba-1 exploratory well drilling

was started by BAPEX's own Bijoy-12 rig and manpower on 4 May 2018 and completed drilling to the depth of 2,975 meters on 23 October 2018. Although there is the presence of gas in the well, it is not commercially viable; therefore, keeping the opportunity of re-entry, all activities were kept closed at the well after doing cement plugging on 18 October 2018. Though an agreement was signed with Socar AQS to complete the drilling activities of Madarganj-1 exploratory well on turn-key basis, the said contractor sent a letter on March 2019 to cancel the contract. Land development and construction of link roads have been completed in the well area. Till 30 June 2019, a total of Tk. 736.60 million has been spent out of the total allocated amount of Tk. 946.00 million in favor of the project (financial progress-77.86%).

## Development

### **Rupaklpa-5 Drilling Project (1<sup>st</sup> Revised):**

Financed by GDF, the project was approved by Energy and Mineral Resources Division for drilling of Begumganj-4 appraisal/development well and completion of Begumganj-3 workover. Though an agreement was signed between BAPEX and M/s. Socar AQS for drilling of Begumganj-4 appraisal/development well, the said company transferred the mining equipment to the well area and terminated the contract by a letter on March 2019. As a result, it was not possible to complete the activities of drilling of the said well. As such, a total of Tk. 211.70 million has been spent out of the total allocation of Tk. 1,566.70 million till 30 June 2019 (financial progress-13.51%).

## Workover

**Begumganj-3 well:** Workover work of Begumganj-3 well has been successfully completed by BAPEX's own rig under the scope of Rupaklpa-5 drilling project. From this well, 6 MMscfd of gas is being supplied to the national grid.

**Bakhrabad-1 well:** Under the scope of an agreement signed between BAPEX and BGFCL, the workover work of the well was started on 20 February 2019 by Bijoy-12 rig and completed successfully on 16 May 2019. About 14 MMscfd of gas is being supplied to the national grid from the well.

**Titas-6 well:** Under the scope of an agreement signed between BAPEX and BGFCL, the workover work of the well was started on 5 May 2019 by Ideco rig and was completed successfully on 1 June 2019. About 28 MMscfd of gas is being supplied to the national grid from the well.

**Narsingdi-1 well:** Under an agreement signed between BAPEX and BGFCL, the workover work of the well was successfully completed by Bijoy-11 rig. About 11 MMscfd of gas is being supplied to the national grid from the well.

## Production

In the FY 2018-19, total 961.7 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 34.72% of total gas produced during FY 2018-19. BAPEX was assigned with production activities in 2000. It produced 42.3 BCF gas in FY 2018-19. Total production of these 3 national companies stood 376.22 BCF which was 39.12% of total production of gas during FY 2018-19. The remaining 585.49 BCF gas was produced by IOCs (Chevron and Tullow), which was 60.88% of total production of gas.

Compared to the previous year, Chevron and Bapex produced 0.46% and 15.87% higher while Tullow, SGFL and BGFCL produced 1.81%, 3.34% and 4.89% lower amount of gas respectively, in FY 2018-19. The total production in FY 2018-19 stood at 961.7 BCF, averaging about 2,635 MMscfd. Out of this, BGFCL produced 287.67 BCF, SGFL 46.22 BCF, BAPEX 42.3 BCF, Chevron 553.15 BCF and Tullow 32.34 BCF. The major gas producing fields

of the companies under Petrobangla are : Titas Gas Field contributing 19.73%, Habiganj 8.52%, Kailashtila 2.47% and Rashidpur 2.00%, whereas major producing fields under IOCs are : Bibiyana contributing 49.67%, Jalalabad 9.01%, Moulvibazar 0.84% and Bangura 3.48%.

At the end of FY 2018-19, 20 gas fields were in production with 113 flowing wells. Out of these fields, 5 were operated by BGFCL, 4 by SGFL, 8 by BAPEX, 3 by Chevron and 1 by Tullow.

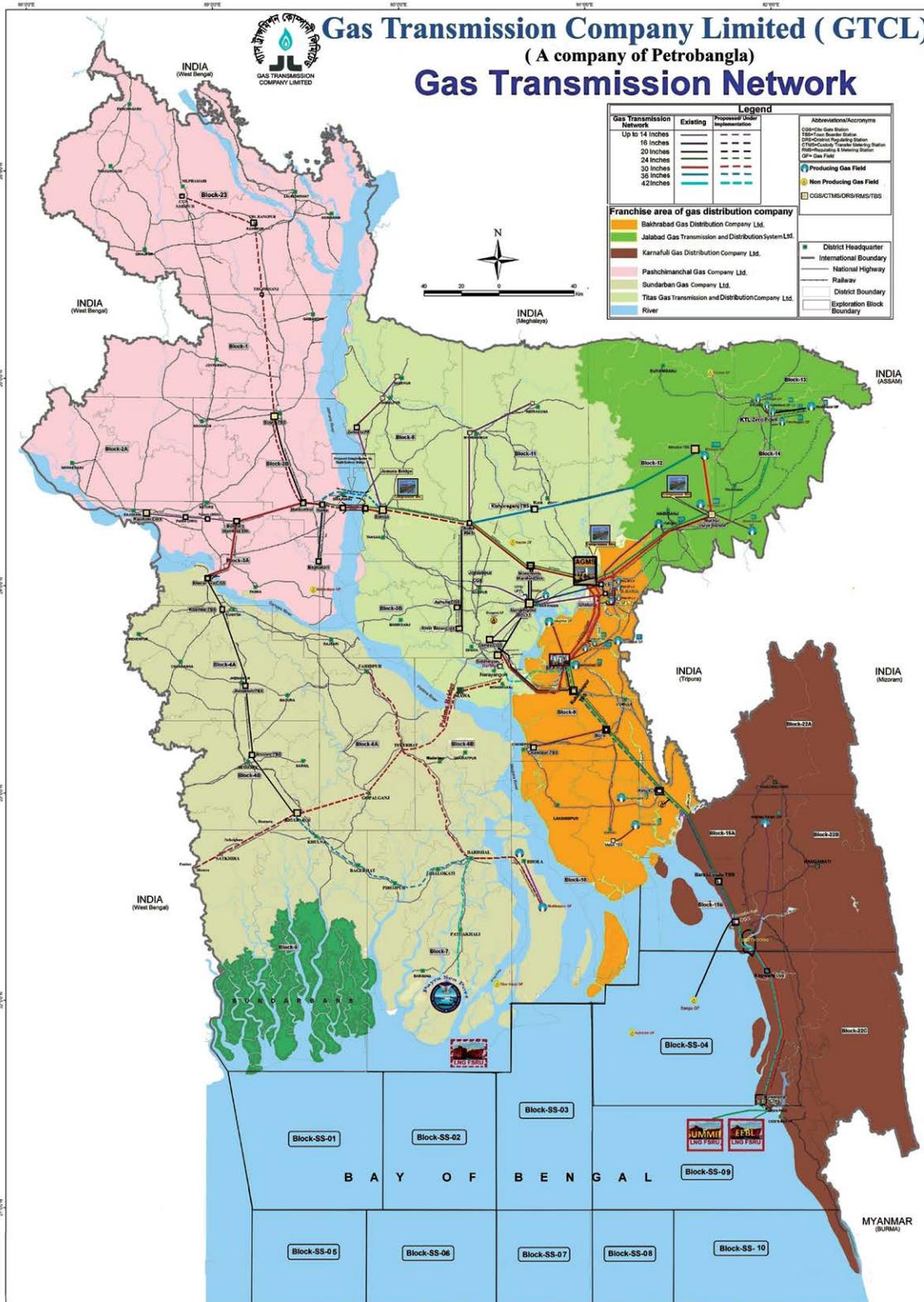
In addition to the indigenous gas, 116.0 BCF imported RLNG was fed into the national gas grid in the FY 2018-19.

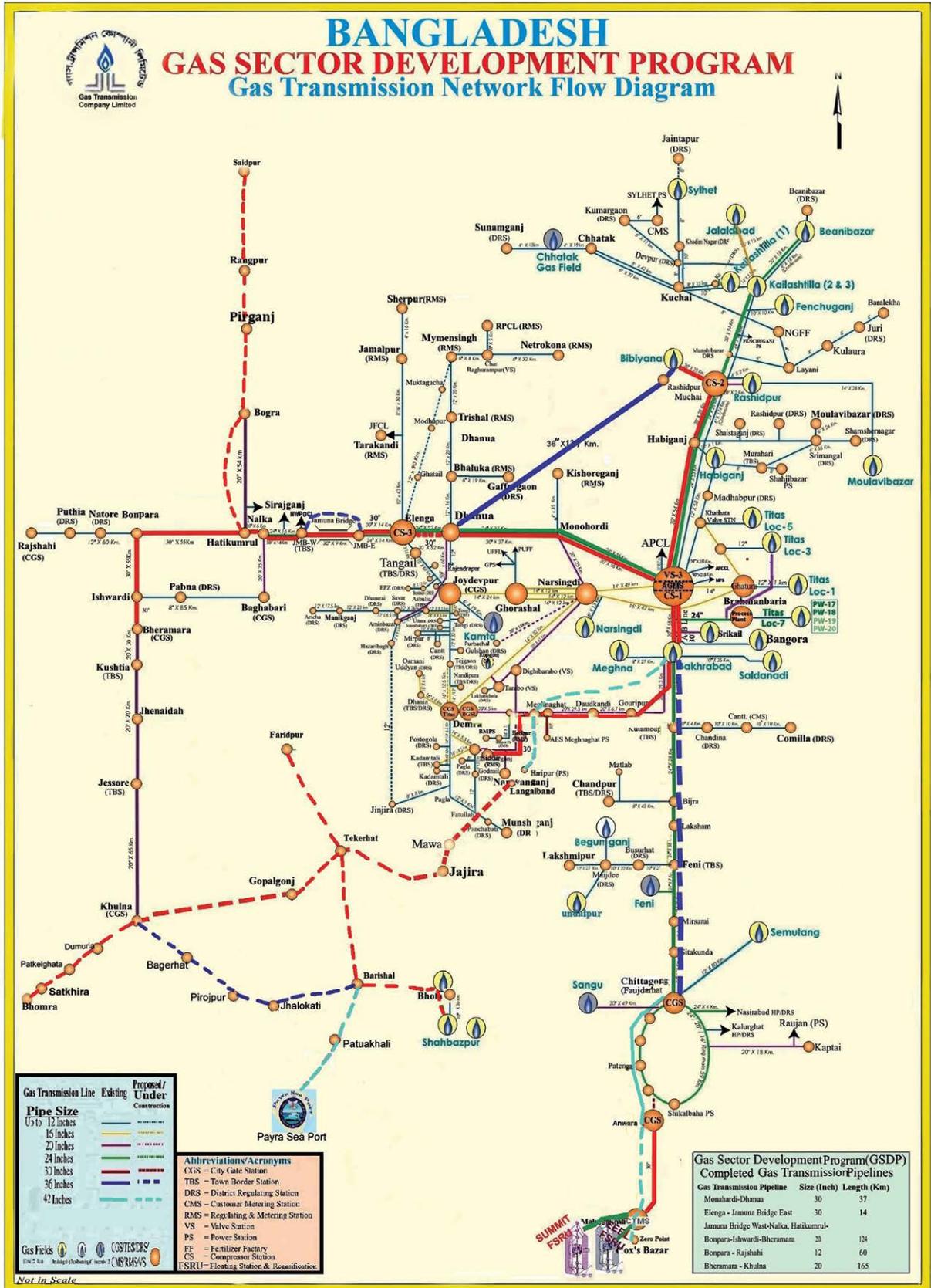
During the period from July to December, 2019, Chevron and Tullow produced 270.33 BCF and 17.96 BCF gas respectively while local companies produced 174.3 BCF gas, making total of 462.59 BCF. In the same period, 101.92 BCF imported RLNG was fed in to the national gas grid.

## 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 - Jamuna West Bank-Nalka 30" x 15 km gas transmission pipeline; 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; Moheshkhali Zero Point (KaladiaChor) - CTMS (Dholghat Para) 42" x 7 km gas transmission pipeline; Bakhrabad-Feni-Chattogram 36" x 181 km gas transmission parallel pipeline; Monohordi-Dhanua and Elenga-East Bank of Jamuna Bridge 30" x 51 km gas transmission

pipeline; Dhanua-Elenga and Bangabandhu Bridge West Bank-Nalka 30" x 67 km gas transmission pipeline; Hatikumrul-Ishwardi-Bheramara 30" x 87 km gas transmission pipeline; Bonpara-Rajshahi 12" x 53 km gas transmission pipeline; Bogura-Rangpur-Saidpur 30" x 150 km gas transmission pipeline; Bheramara-Khulna 20" x 165 km gas transmission pipeline; Bakhrabad-Siddhirganj 30" x 60 km gas transmission pipeline; gas transmission capacity expansion-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; installation of compressor stations at Ashuganj and Elenga by GTCL and expansion of existing supervisory control and data acquisition (SCADA) system of national gas grid under 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-Bakhrabad 30" x 61 km gas transmission pipeline; Bakhrabad-Siddhirganj 30" x 60 km gas transmission pipeline; construction of 10" x 7.7 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 3.3 Km gas transmission pipeline Project; Moheshkhali-Anowara 30" x 91 km gas transmission pipeline; Anowara-Fouzdarhat 42" x 30 km gas transmission pipeline; Jamuna West Bank-Nalka 30" x 15 km gas transmission pipeline; installation of compressor stations at Ashuganj and Elenga by GTCL 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) have already been completed.





## Running projects are

- ▶ Construction of Dhanua-Elenga and Bangabandhu Bridge West Bank-Nalka 30" x 67 km gas transmission pipeline.
- ▶ Construction of Bakhrabad-Feni-Chattogram 36" x 181 km gas transmission pipeline.
- ▶ Construction of Moheshkhali-Anowara 42" x 79 km gas transmission parallel pipeline.
- ▶ Construction of Moheshkali Zero Point (KaladiaChor)-CTMS (Dholghat Para) 42" x 7 km gas transmission pipeline.
- ▶ Construction of Bogura-Rangpur-Saidpur 30" x 150 km gas transmission pipeline.

## Pipelines

Gas pipeline network continued to expand both in transmission and distribution. In total about 106.98 km pipelines of various sizes and grades were completed during the year 2018-19; these included 30.00 km transmission pipelines, 0.54 km lateral lines, 26.30 km feeder main and service lines and 50.14 km others (customer financing) pipelines. As on June, 2019 the gas pipeline network encompassed about 24,297.28 km comprising of about 2,871.57 km transmission lines, 2,380.74 km distribution lines, 235.74 km lateral lines, 16,728.12 km feeder main and service lines and the rest 2,081.11 km other (customer financing) lines.

As in December, 2019 the pipeline network increased to about 24,336.21 km, which included about 2,871.75 km transmission lines, 2,380.74 km distribution lines, 235.74 km lateral lines, 16,738.08 km feeder main and service lines and the rest 2,109.90 km pipelines constructed under customer financing.

## 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 companies are : (1) Titas Gas Transmission and Distribution Company Limited (TGTDC), (2) Bakhrabad Gas Distribution Company Limited (BGDCL), (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.

The total gas sales of the aforesaid 6 marketing companies in operation during this financial year was about 1074.34 BCF, of which TGTDC, being the largest shared about 58.0%, followed by BGDCL 12.0%, KGDCL 10.4%, JGTDSL 12.3%, PGCL 4.0% and SGCL 3.2%. Gas sector catered to 4.318 million customers under various categories as in June, 2019 which raised to 4.327 million at the end of December, 2019. 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 2018-19, a total of 493,318 barrels of condensate was produced by SGFL, BGFCL and BAPEX and 3,649,933 barrels by IOCs as a by-product of gas. During the same period, SGFL extracted 171,744 barrels of NGL from the gas processed in its Mole-Sieve Turbo Expander plant at Kailashtila. On the other hand, a total of 1,142,964 barrels of petrol, 327,643 barrels of diesel and 145,176 barrels of kerosene was produced by fractionating the condensate at the fractionation plants located at different fields of SGFL, BGFCL and RPGCL.

### **CNG and LPG**

RupantaritaPrakritik 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 3.64 BCF of CNG is used every month from 599 CNG stations, which is about 5% of the total gas consumption in the country. Consequently, the Government has been able to save about Tk. 11,270.0 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 6,548 metric tons of LPG by processing NGL in its fractionation plants at Kailashtila in Sylhet in the FY 2018-19.

### **Liquefied Natural Gas (LNG)**

To accomplish Vision 2021 and sustainable development goals (SDGs) particularly Goal # 7: Secure access to affordable, reliable, sustainable

and modern energy for everyone by 2030 and to minimize the demand-supply gap, the Government has invigorated its effort to enhance gas production along with initiatives to import significant quantity of LNG. Two separate terminal use agreements (TUA) have been signed with Excelerate Energy Bangladesh Limited (EEBL) 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 RLNG each. The first ever FSRU (by EEBL) was commissioned in August, 2018 and the second FSRU (by Summit) was commissioned in April, 2019. In addition, feasibility study has been completed to install land based LNG terminal at Kutubdia, Cox's Bazar and Payra, Patuakhali. Due to some constraints in those places, Matarbari has been selected as alternative site for construction of a land based LNG terminal having a capacity of handling 7.5 MTPA of LNG equivalent to 1,000 MMscfd of RLNG (gas). Initial activities, such as feasibility study, land acquisition etc. have been started for installation of the land based terminal. Two long-term sale and purchase agreements (SPA) were signed with Ras-Laffan Liquefied Natural Gas Company Limited (3) of RasGas, Qatar and with Oman Trading International (OTI), Oman for supplying LNG to these terminals. Additionally, master sale and purchase agreement (MSPA) was signed with 14 nos. suppliers/traders to purchase LNG from Spot Market. Construction of 30" x 91 km transmission pipeline from Moheshkhali to Anowara in Chattogram and another 42" x 30 km gas transmission pipeline from Anowara to Fauzdarhat have been completed to evacuate RLNG(gas) after fulfilling the demand of Chattogram region.

### **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.

The commercial production started from the coal mine in 2005 and from the granite mine in 2007. Coal is being used mostly for power generation at the mine mouth thermal power plant of BPDB and granite is used mostly as construction material. At present several feasibility study project has been undertaken to develop more mine in our country to extract valuable natural resources.

## **Coal**

Energy is the main indicator of economic growth for a country and constitutes one of the vital infrastructural inputs in socio-economic development. At present, natural gas is the main indigenous primary energy source of Bangladesh. Several studies reveal that domestic production of natural gas will be depleting soon in the near future. Considering the uncertainty of sustainable supply of primary energy it is imperative to diversify the primary energy sources in the country. In that case, domestic coal can be a major alternative energy source for the energy security of the country. At present 2.55 % of electricity has been produced from domestic coal.

So far 5 coal fields have been discovered in the north-western part of Bangladesh. These are Khalaspir Coal Field in Rangpur, Barapukuria, Phulbari & Dighipara Coal Fields in Dinajpur and Jamalganj Coal Field in Joypurhat/Naogaon. The total estimated reserve of these five coal fields is 7.96 billion metric tons.

Out of these 5 coal fields, Petrobangla has developed the first and only coal mine of the country at Barapukuria. Commercial production started from September, 2005 and currently this mine is producing 3,000-3,500 metric tons of coal per day. From the beginning of the mine total 11.39 million metric tons of coal has been produced till December, 2019. In the year 2019, total 0.908 million metric tons of coal has been produced and the entire amount of produced coal are being used to operate the Barapukuria 525 MW coal fired power plant.

To increase the present production of Barapukuria mine, a feasibility study project has been completed in September, 2018 for north-south extension of the existing mine. Outcome of this feasibility study project suggests that about 3.2 million metric tons of coal can be extracted from northern part over 6 years and about 6.9 million metric tons of coal from southern part over 7 years. All necessary measures has been undertaken for extraction coal from extended northern and southern area where it is expected to commence production from January, 2024.

Petrobangla conducted a 1st stage feasibility study in Dighipara Coal Field which proves the prospect of this coal field with reserve estimated as 865 million metric tons. After that, Barapukuria Coal Mining Company Limited (BCMCL) has undertaken a second stage project named "Techno-Economic Feasibility Study of Coal Deposit at Dighipara, Dinajpur" to develop an underground coal mine. Recent past feasibility study has been completed with submission of the draft report by the consulting firm. In that report, consultant has mentioned that total geological reserve of Dighipara coal basin is 706 million metric tons among which 82 million metric tons is extractable by underground mining.

Petrobangla carried out a feasibility study project during the year 2015-16 for extraction of CBM (Coal Bed Methane) from Jamalganj coal field. From this study project it is concluded that due to extreme gas under-saturation CBM production is not economically viable. The consulting firm mentioned that there are 5.45 billion metric tons of coal resources is present over 64 sq. km area of Jamalganj coal basin. The consulting firm recommended detailed exploration for extracting this coal eventually from Jamalganj coal field. They also opined that the coal is extractable by underground mining especially in the north-western 15 sq km area of Jamalganj basin where the upper coal seams occur at a comparatively shallower depth (600-800m). A proposal for feasibility study (PFS) has been prepared to conduct a feasibility study with a view to

developing an underground mine in the north western comparatively shallower area of Jamalganj coal field.

To meet up the present and upcoming energy demand, it is required to increase the coal production by developing other coal fields such as Jamalganj Coal Field, Khalaspir Coal Field and Phulbari Coal Field. Development of coal fields can be augmented by engaging foreign and local investors. However, to get rid of the present and upcoming energy crisis the development of indigenous coal resources need to be augmented on a priority basis.

## Granite

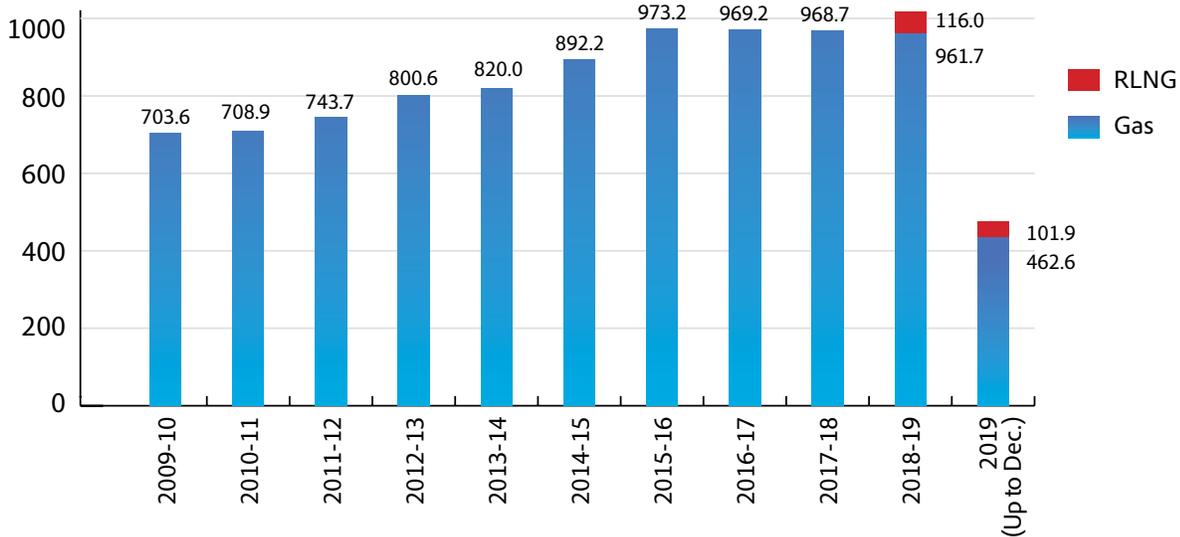
Maddhapara Granite Mining Company Limited (MGMCL) at Dinajpur, the only underground mining company of this kind in the world, has been extracting granite which is used mostly as construction material. During the FY 2018-19, a total 10,67,646.63 metric tons of granite was extracted from the mine and 7,31,493.56 metric tons was sold.



Rock Transportation System by Railway at MGMCL

# Gas Production in Bangladesh

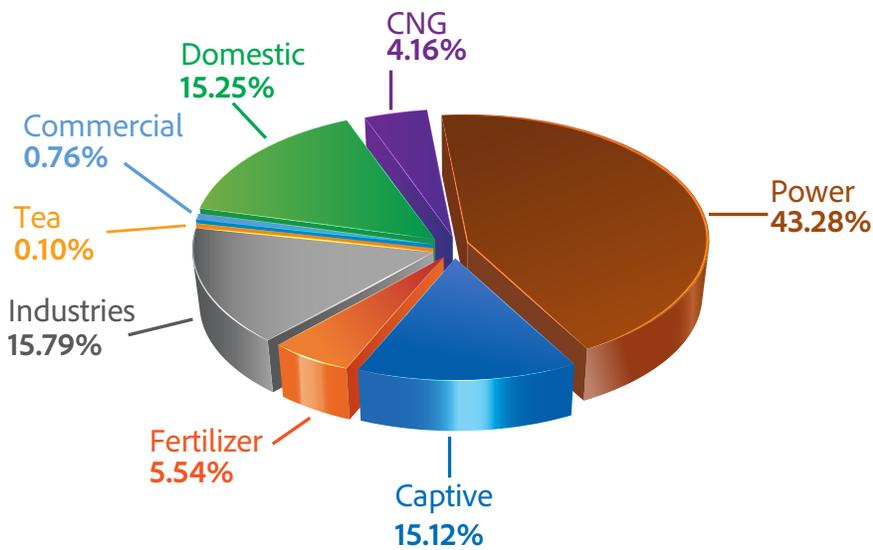
Total production upto Dec'19 is 17.37 TCF  
Unit: BCF



## Marketing

By the end of 2018-19 financial year, total sales was 1041.79 BCF, of which power sector (Grid +

BCF, domestic sector 158.88 BCF, and other non-bulk sectors 52.33 BCF. As in December, 2019 gas sector catered to more than 4.327 million customers of various categories. Most of this



**Total: 1041.79 BCF**

Non-Grid) consumed the largest part amounting to 450.88 BCF followed by fertilizer sector 57.67 BCF, captive power 157.52 BCF, industry 164.51

customers fall under domestic category; however, power sector remained the largest consumer.

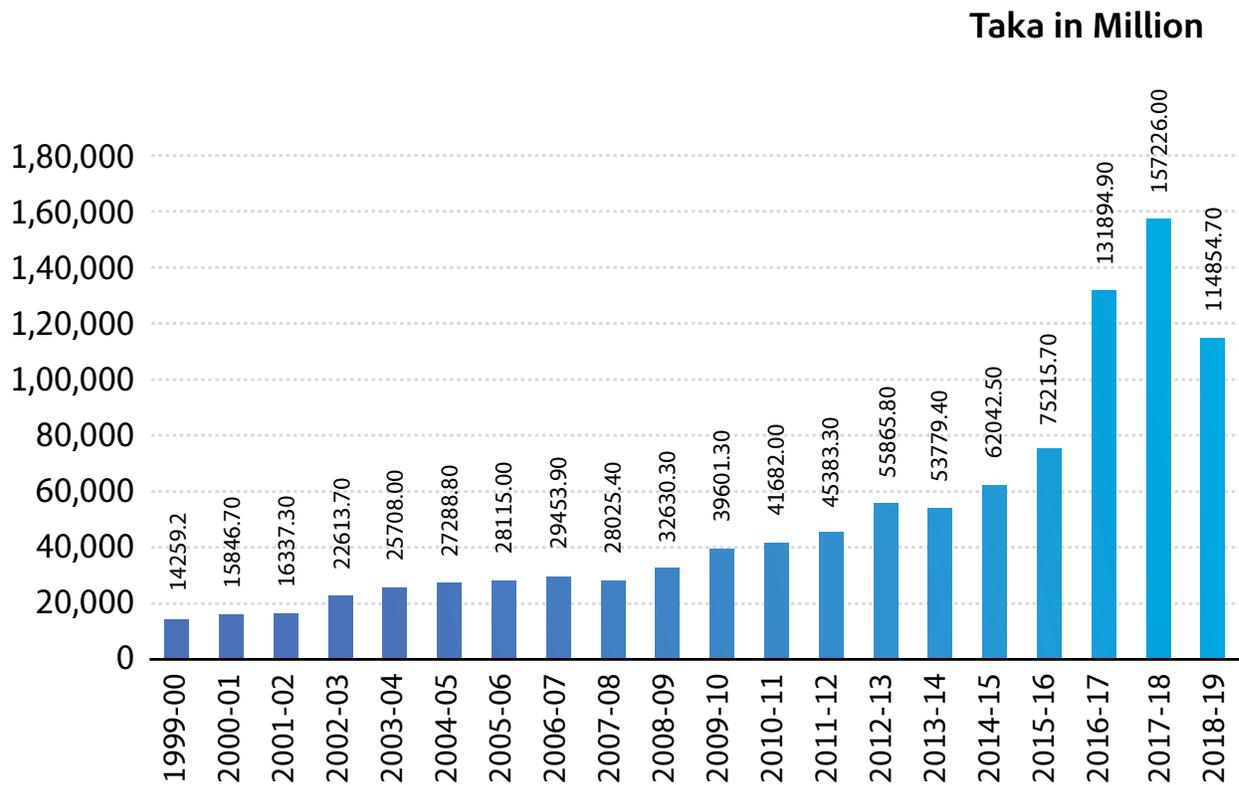
## Financial

The gross income in the FY 2018-19 by Petrobangla and its 13 companies from sales of gas, gas derived liquids, coal and granite stood at Tk. 4,64,581.58 million. After paying supplementary duty (SD) and VAT, net income was Tk. 4,22,741.21 million. Gross expenses, comprising of Tk. 41,840.37 million as

## Innovation Programme

Bangladesh continues its various development activities becoming the middle-income country by 2021. Petrobangla is aligning with the Vision-2021 to achieve and be a part of digital Bangladesh. Petrobangla is playing very important role to speed up its service better. According to this, Petrobangla

### Payment to National Exchequer



SD and VAT along with Tk. 4,48,421.32 million as cost of sales, amounted to Tk. 4,90,261.69 million. After paying income tax, net profit/(loss) stood at Tk. (847.68) million. And after paying dividend of Tk. 7,089.15 million, net profit/(loss) turned out to be Tk. (7,936.83) million.

has focusing some innovative plan to ensure some services easier. These are (a) mobile application for withdrawing pension by biometric authentication by TGTDCI (b) RFID sticker system to recognize the vehicle in RPGCL CNG station by RPGCL (c) contractor management system by BGDCL. Petrobangla always welcome to participate in developing innovative ideas for better services from its employees, stakeholders and visitors.

## 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 programmes :** (i) Boiler Economizer Pilot Programme (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 Programme (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 Programme (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.

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.

## 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
<b>Total</b>			<b>816</b>	<b>286</b>		<b>5,350,964</b>

## Annual Performance Agreement

The 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



the FY 2019-20, APA was signed between EMRD and Petrobangla on 23 June, 2019 while between Petrobangla and its companies on 20 June, 2019. Reports of achievement regarding APA are being sent to EMRD on monthly, quarterly, half-yearly and yearly basis.

## 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



Signing of APA between Petrobangla and its companies

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 2018-19, Petrobangla's achievement was 96.7%. In

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 provisions of the Act, Rules and Regulations.

### **National Integrity Strategy**

As per Government's decision, a time bound action plan on national integrity strategy at corporation level has been implementing since 2014 . In light of the Government's direction , a committee has been formed to implement the national integrity strategy action plan in the corporation . And an official has been deployed in order to implement the national integrity strategy of Petrobangla . In the guideline of Cabinet Division of Bangladesh Government, Petrobangla had prepared a time bound action plan on national integrity strategy for the FY 2019-20 on 4 July, 2019. The 1st quarter report of national integrity strategy action plan was sent to EMRD on October, 2019 as per schedule. The major portion of the time bound action plan works have already been implemented within the stipulated time and hope that this national integrity strategy will play a pivotal role in building the Golden Bengal - the dream of the Father of the Nation and the people of Bangladesh as well.

### **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 2018-19, Petrobangla group arranged foreign training of different durations and disciplines for 604 personnel, while 24 participants were sent for attending seminars, 3 for conferences, 5 for attending workshops, 4 for attending meetings, 44 for inspections and 3 for study tours. During the same period, local training was imparted to 647 personnel, while 88 were sent for attending seminars and 35 in workshops held in the country.

### **Information Technology**

Petrobangla and its companies are working for digital services. Petrobangla is using e-Nothi system and e-Government Procurement (e-GP) system. Official meetings have been arranged by various kind of video-conferencing system for direct communication to save time and labor. Internet bandwidth has been increased to ensure internet based activities. Petrobangla maintains an updated website which is both in English and Bangla version. Petrobangla also maintains a mail server to ensure authentic, rapid and digital communication. Besides this, Petrobangla and its companies is trying to initiate some e-services to ensure smooth, fast and better services to its stakeholder.

### **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 wound up by 1978.

#### **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.

#### **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;

#### **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.

## 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.

## 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.

### 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.

## Operating Fields under PSC in 2018-19

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 Bangura gas field by Tullow/KrisEnergy.

**Bibiyana :** Bibiyana field is now the largest supplier of gas to the national grid, delivering around 1,314 MMscfd gas and 8,117 bbl/day condensate from 26 wells. The design capacity of the process plant is 1,350 MMscfd. To maintain the current production plateau, few work programs and activities such as thin bed analysis, infill drilling, plant pressure optimization and compression projects are forecasted to execute in future.

**Jalalabad :** Currently Jalalabad gas field is producing around 213 MMscfd gas and 1,026 bbl/day condensate from 7 wells. The 2015 drilling campaign discovered a new sand layer (BB-20) which indicates further potentiality of the field.

**Moulvibazar :** Moulvibazar gas field is experiencing natural production decline and currently producing around 19 MMscfd. At present 5 wells are producing out of 9 wells. To increase the field deliverability, it has been decided to supply the produced gas directly to the local distribution line at a lower regulated pressure.

**Bangura :** The Bangura field started producing in 2006, peaking at 120 MMscfd in 2010 and thereafter declining to 80 MMscfd in November, 2018 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. However, successful well intervention program held in November, 2018 has augmented the field's production by 20 MMscfd. The Bangura field is now producing at around 98 MMscfd.

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 2018-19 was around 588 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.

### Current and upcoming exploration activities

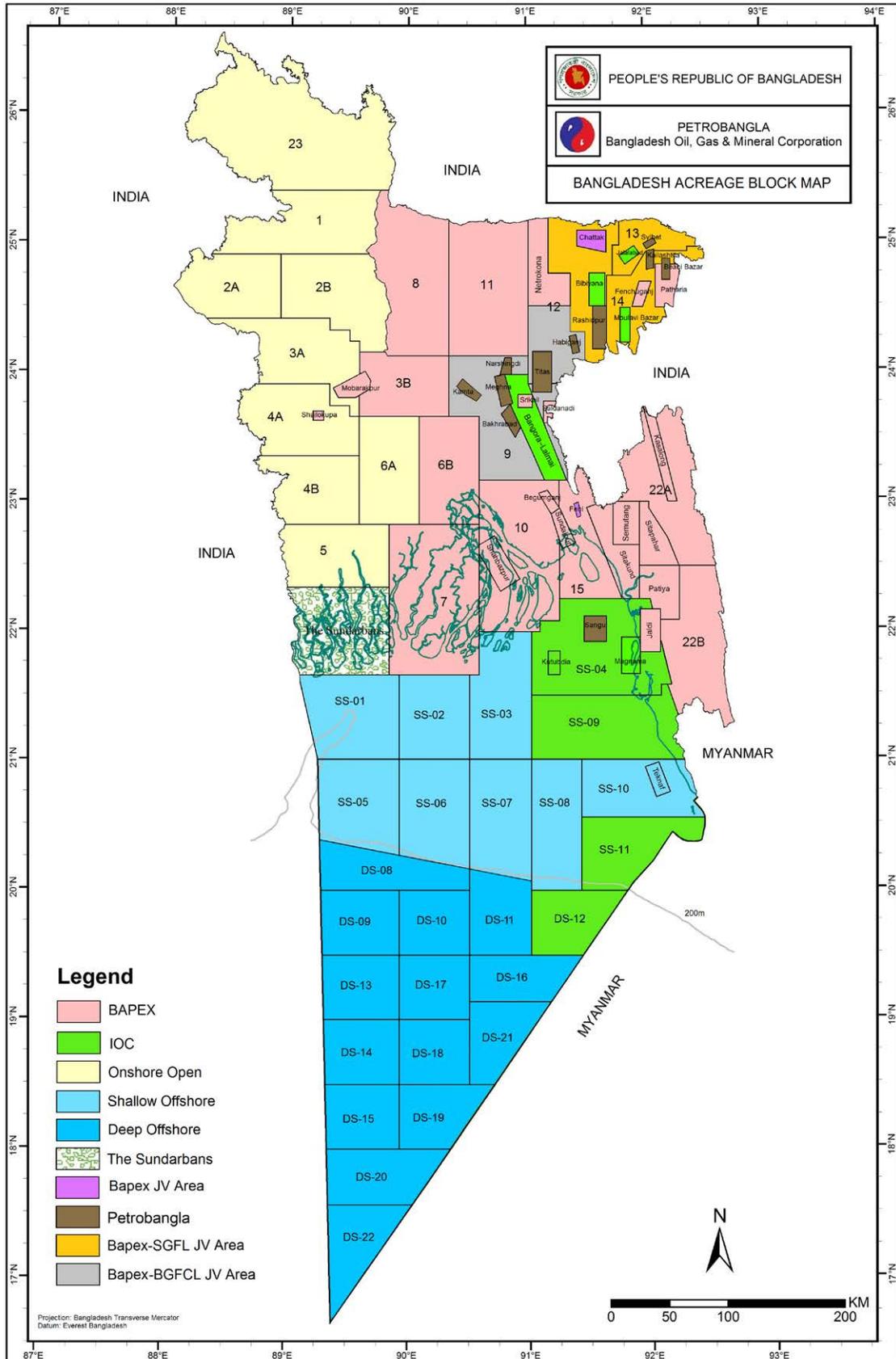
Initial exploration activities are in progress in blocks SS-04 and SS-09. In the 1st phase ONGC Videsh Ltd. (OVL) has completed 3,008 lkm of 2D marine seismic survey data acquisition. In the 2nd phase OVL carried out 2,520 lkm 2D OBC survey. By February, 2021, OVL will drill 2 exploratory wells in block SS-04 and 1 exploratory well in block SS-09. In block SS-11 Santos conducted 3,050 lkm of 2D seismic survey in 2015. Later they conducted 305 sq. km. 3D seismic survey in May, 2017. Interpretation and integration of the 3D data sets have been completed. By March, 2021 Santos has an obligation of drilling 1 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 (presently POSCO INTERNATIONAL 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.

### Blue Economy

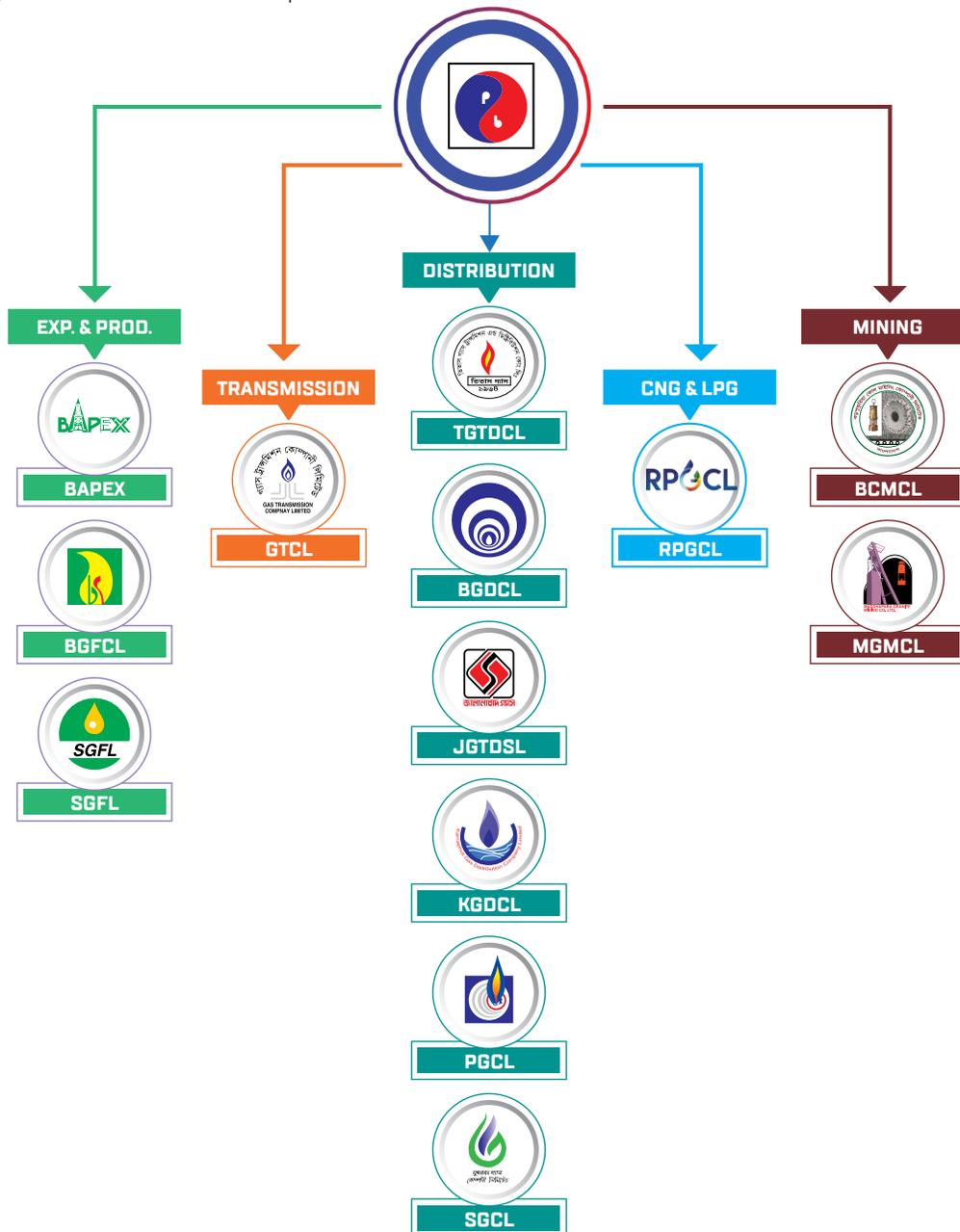
Bangladesh's maritime victory over Myanmar and India have opened the doors to immense possibilities for harnessing resources from the 26 blocks in deep and shallow seas, covering more than 118,813 square kilometers of waters altogether comprising territorial sea and an exclusive economic zone extending out to 200 nautical miles (370 km). 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. Under the blue economy activities of the government, Petrobangla is implementing 6 programmes, out of which 2 programmes are incorporated as fast-track of the government. One of the programmes is up gradation of existing Model PSC 2012 which has already been upgraded and split into "Onshore Model PSC 2019" and "Offshore Model PSC 2019". New bid round will be announced upon approval of the authority. The other programme is 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. An agreement was signed between TGS-SCHLUMBERGER JV and Petrobangla to conduct a total of 32,000 lkm 2D Non-Exclusive Multi-Client Seismic Survey in the offshore area of Bangladesh.



# 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 (ToiloSandhani) 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 producing and supplying about 120 MMscfd of gas to the national grid from its 7 gas fields, namely Saldanadi, Fenchuganj, Shahbazpur, Semutang, Sundalpur, Begumganj and Srikail and the total amount of gas produced from these fields in the fiscal year 2018-19 was about 42.3 BCF. The produced gas was sold to Bakhrabad Gas Distribution Company Limited, Karnaphuli Gas Distribution Company Limited, Sundarban Gas Company Limited and Titas Gas Transmission and Distribution Company Limited. Besides, about 40,157 barrels of condensate was produced as by-product which was sold to Bangladesh Gas Fields Company Limited, Sylhet Gas Fields Limited and

Bangladesh Petroleum Corporation.

Fiscal year 2018-19 was a successful one for BAPEX. With a view to attaining the goal of 'Vision 2021', the Government has already approved 10 different projects titled as 'Rupkalpa' for BAPEX to be implemented under the "Speedy Supply of Power and Energy (Special Provision) Act 2010". Under the Rupkalpa-1 drilling project (2nd revised) drilling of Srikail East-1 and Salda North-1 were drilled by BAPEX's own rig (Bijoy-10) and manpower. After finalizing the drilling of a new well at Srikail East-1, gas flow of 15-20 MMscfd has been confirmed by DST. Construction of necessary infrastructures and new gas gathering pipe lines are under process to supply around 20 MMscfd to national gas grid within December, 2020. Under the Rupakpa-5 drilling project (1st revised), after successfully completion of work-over operation of Begumganj-3, an amount of around 8 MMscfd has been added to national gas grid. The Hon'ble Prime Minister has assented on drilling of additional 2 exploratory wells (Togbi-1 and Ilisha-1) and 1 appraisal/development well (Bhola North-2) in the Bhola Island.

BAPEX has drilled 12 exploratory wells, out of which 8 gas fields have been discovered. Since its inception, BAPEX has successfully completed workover operations of 36 wells, drilling of 11 exploration wells and 21 development wells. Experience of exploring oil and gas gathered over a period of 30 years has enhanced the technical capacity of BAPEX. New gas reserves to be explored through the ongoing drilling works will help implementation of 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. An exploration well named Kanchon-1 will be drilling in block SS-4 in the upcoming dry season. On the other hand Santos Sangu Fields Limited has a plan to conduct 3D seismic survey in the shallow sea block SS-11. As a stake owner, BAPEX monitors the activities taking place in those blocks. BAPEX, as 10% participatory partner with Tullow Bangladesh (Krisenergy) and Niko Resources Limited in PSC block-9 monitors the operations of Bangora gas fields. At present about 83 MMscfd of gas is being produced from Bangura gas fields.

During the FY 2018-19, total earnings of BAPEX stood at Tk. 4,676.00 million, of which Tk. 3,323.60 million (excluding SD and VAT) earned from sales of natural gas and condensate of own gas fields, Tk. 117.90 million received from different gas marketing companies of Petrobangla as "BAPEX Margin" on gas sales and Tk. 1,234.50 million earned from PSC Block-9, interest income and income from other sources. Against this earnings, total cost stood at Tk. 7,661.80 million during the year. The net loss after tax of the company stood at Tk. 3,015.10 million. During the FY, the revenue reserve stood at Tk. 4,715.7 million after prior year's adjustment costs of Tk. (102.80) million and accumulated revenue of Tk. (1,597.80) million. The Company paid Tk. 2,053.50 million to the government exchequer during FY 2018-19.

### Future Work Plans (2019-2041)

With a view to achieving the aspired goal to up lift the country to a middle income by 2021 and to a develop country by 2041 under "Vision 2021". BAPEX has prepared of future plan for the period of 2019-2041. It has been planned to implement 10 projects in the short-term (2019-2021), 11 projects in the mid-term (2022-2030) and 4 projects in the long-term (2031-2041). The overall activities the BAPEX is closely associated with aspired goal of the Government.

Considering its overall activities, for BAPEX, 2018-19 fiscal was a year of making some sort of 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

The 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 :12
- ▶ Drilling of development wells : 8 and workover : 24

### On-going Projects during FY 2018-19 are:

Shahbazpur-Sundalpur (Sundalpur-2) appraisal/development well drilling project; 2D seismic survey project; 2D seismic survey over exploration block 3B, 6B and 7; 3D seismic survey project; Rupkalpa-1 drilling project: 2 exploratory wells (Srikail East-1, and Salda North-1); Rupkalpa-2 drilling project: 2 exploratory wells (Zakiganj-1, Semutang South-1); Rupkalpa-3 drilling project: 1 exploratory wells (Kasba-1); Rupkalpa-4 drilling project: 2 exploratory wells (Shahbazpur East-1, Bhola North-1) and 2 workover (Shahbazpur-1 and 2); Rupkalpa-5 drilling project: 1 workover (Begumganj-3); Rupkalpa-9: 2D seismic project.



## 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 on 12 September, 1975 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).

BGFCL produces natural gas and processes condensate into petrol and diesel. Presently, BGFCL owns 6 gas fields - Titas, Habiganj, Bakhrabad, Narsingdi, Meghna and Kamta. This company continued gas production from 5 gas fields except Kamta out of its 6 fields in the FY 2018-19. At present, daily on an average 735 million cubic feet gas is being supplied to the national grid from 44 wells of 5 producing fields. BGFCL shares about 23% of country's total gas production and around 74% of state-owned gas production companies. During 2018-19 FY, 287.70 BCF of gas and 186,576 barrels of condensate, extracted as by-product from the gas, were produced by the company. There are total 29 different types of gas process plant for processing produced gas. The processed gas is being supplied to TGTDC, BGDCL, KGDCL, JGTDSL, PGCL and SGCL through transmission network under GTCL and TGTDC. Besides, processed petrol and diesel are being supplied to

the oil marketing companies under Bangladesh Petroleum Corporation. To ensure energy security of the country, BGFCL is carrying out drilling of new wells, workover of existing wells, installation of gas compressors & process plants etc. in accordance with Government work plan.

According to the study report-2010 of Gustavson Associates, USA engaged by Hydrocarbon Unit (HCU) of Energy and Mineral Resources Division, total recoverable gas reserve of 6 fields under the company is about 12.252 TCF, out of which 8.317 TCF or about 67.89 percent was recovered till 30 June, 2019.

To meet the growing demand of natural gas in the country, BGFCL has kept up its relentless efforts to ensure uninterrupted gas supply from its different fields and implementation of various development projects with the financing of gas development fund (GDF) and financial assistance of ADB, AIIB, GOB and JICA.

A project with the financial assistance of JICA and GOB has been undertaken for installation of wellhead compressors at Titas Location-C and Narsingdi Gas Field. Under the project, necessary physical work for installation of compressors is in progress by appointed EPC contractor. Another project with the financial assistance of ADB, AIIB and GOB has been undertaken for installation of wellhead compressors at Location-A of Titas Gas field. Under the project, engagement of foreign consultancy firm has been completed and appointment of EPC contractor is in progress. Besides, another project with the financing of GDF has been undertaken for workover of 7 wells at Titas, Habiganj, Narsingdi and Bakhrabad Gas Fields. Under the project, after completion of workover of suspended 2 wells at Habiganj and

Bakhrabad Gas Fields have been brought back into production and about 30 MMscfd additional gas is supplied to the national grid. Workover of another 2 wells at Titas and Narsingdi were carried out and both the wells are in normal production right now. Out of these, due to some complicity encountered during workover operation of Titas well no. 13, the workover operation of this well is suspended upon advised by Petrobangla and workover of Titas well no. 9 has been commenced on 10 December, 2019.

To sustain gas supply to national grid maintaining grid line pressure, a project with the implementation period of July, 2020 to June, 2024 has been undertaken for installation of wellhead compressors at Titas location-E & G. This project will be implemented from the loan of GDF along with company's matching fund. The approval of DPP of the project is in progress. Besides, two wells of Titas and one well at Bakhrabad field will be drilled after review of the 3-D Seismic survey report. One well will be drilled in Kamta after getting 3-D interpretation report from BAPEx. On the other hand, more projects are under consideration for installation of fractionation plant at Titas Gas Field; workover of 7 wells at Titas, 1 well at Meghna

and 2 wells at Habiganj Gas Fields and installation of wellhead compressors at Titas location-I & J to sustain gas production from the field.

The company earned gross revenue of Tk. 18,077.9 million and a pre-tax profit of Tk. 2,334.5 million during the FY 2018-19. The company also paid Tk. 17,172.0 million to the national exchequer in the form of SD, VAT, DSL, Dividend and Income Tax during the year.

Various local training/seminars, in-house and overseas training programs have been organized on innovation, NIS, simplification of services, e-governance, accountability & transparency etc. aiming for the capacity building of the employees. A work plan/program was prepared for the FY 2018-19 in line with the 'Sonar Bangla Gorar Prottoy: National Integrity Strategy of Bangladesh (NIS)' formulated by Government of Bangladesh as a comprehensive good governance strategy to curb corruption and improve national integrity in all spheres of life. This program covers website update, updating of information to National Tothyo Batayan, updating Citizen Charter & introducing online response system, e-tender, e-GP, innovation system in official work etc.



Replacement of inlet cooler of a process plant at Location-A of Titas Gas Field under BGFL



## 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 12 wells (1 at Sylhet, 4 at Kailashtila, 5 at Rashidpur and 2 at Beanibazar) at producing 4 fields are presently on stream which produce an average of 127 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 2018-19, SGFL produced 46.22 BCF of gas and 272,668.91 barrels of condensate and 171,729.56 barrels of natural gas liquids (NGL) from its own fields. The company also produced 1,367,422.53 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 well no.

Sylhet-9 and (v) Work-over of well Kailashtilla-1.

During the FY 2018-19, the company earned an amount of Tk. 1,850.6 million from the sales of 45.85 BCF of gas and Tk. 14,257.8 million from the sales of 1,627,627.30 barrels of finished liquid petroleum products such as petrol, diesel, kerosene, NGL and condensate. Company earned pre-tax profit to the tune of Tk. 4,860.9 million during the FY 2018-19 and paid Tk. 4,103.3 million as supplementary duty and VAT, Tk. 994.9 million as income tax, Tk. 1,700.0 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. 6,865.7 million which was 42.62% of the total income from sales.

Sylhet Gas Fields Limited was adjudged as the top-most VAT paying organization in the production sector at national level for the last consecutive 7 years up to FY 2018-19 and was rewarded by the National Board of Revenue.

In the company, e-tendering and e-filling has already been introduced and going on.



**4000 BPD Condensate Fractionation Plant at Rashidpur of SGFL**



## Gas Transmission Company Limited (GTCL)



**Road crossing activities under Chattogram-Feni-Bakhrabad Project of 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. GTCL owns and operates major gas transmission pipelines throughout the country. Gas transmission pipelines built by other companies before creation of GTCL have been integrated with the GTCL system.

During the FY 2018-19, GTCL transmitted in total 874.96 BCF of gas, 13.12% higher than the previous year, delivering 542.5 BCF, 95.8 BCF, 112.07 BCF, 66.57 BCF, 44.07 BCF and 13.95 BCF to franchise areas of Titas, Bakhrabad, Karnaphuli, Jalalabad, Paschimanchal and Sundarban gas distribution companies respectively. The Company transported a total of 15,69,874 barrels of condensate through its 175 km long north-south condensate pipeline during the year, which was 26.16% less than the previous year.

The company earned an amount of Tk. 9,976.5 million as revenue and Tk. 3,208.9 million as pre-tax profit and contributed an amount of Tk. 7,481.9 million to Government exchequer during the FY 2018-19.

**Ongoing projects in the year 2019 were :** (i) Construction of 42" x 7 km Moheshkhali zero point (Kaladiar Char)-(Dhalghat Para) CTMS gas transmission pipeline project; (ii) 42" x 79 km Moheshkhali-Anowara gas transmission parallel pipeline project; (iii) 36" x 181 km Chattogram-Feni-Bakhrabad gas transmission parallel pipeline project; (iv) Construction of 30" x 67 km Dhanua-Elenga and West Bank of Bangabandhu Bridge-Nalka gas transmission pipeline project; and (v) Construction of 30" x 150 km Bogura-Rangpur-Syedpur gas transmission pipeline project.

**Up-coming projects are:** (i) Construction of 42" x 50 km Bakhrabad-Meghnaghat-Haripur gas transmission pipeline project; (ii) Installation and modification of gas station at off-transmission points of GTCL; (iii) Construction of 36" x 12 km

2nd Bangabandhu Bridge (Railway) Section gas transmission pipeline project; (iv) Construction of 30" x 65 km Satkhira (Bhomra)-Khulna (Araonghata) gas transmission pipeline project; (v) Construction of 30" x 70 km Langalband-Mawa and Jajira-Tekerhat gas transmission pipeline project; (vi) Construction of 30" x 115 km Tekerhat-Faridpur and Tekerhat-Barishal gas transmission pipeline project; (vii) Construction of 30" x 80 km Khulna-Gopalganj-Tekerhat gas transmission pipeline project; (viii) Construction of 30" x 60 km Bhola-Barishal gas transmission pipeline project; (ix) Construction of 42" x 87 km Payra-Barishal gas transmission pipeline project; (x) Construction of 36" x 110 km Khulna-Bagerhat-Pirojpur-Jhalokathi-Barishal gas transmission pipeline project; and (xi) Construction of 30" x 55 km Hatikumrul-Bogura gas transmission pipeline project.

## LNG and transmission pipeline

To meet the ever-increasing gas demand in the country, the Government has taken initiatives to import considerable quantity of liquefied natural gas (LNG). In this regard, 2 FSRUs having the capacity of 500 MMscfd each have been installed at Moheshkhali in Cox's Bazar and commenced transmission to national gas grid from 18 August, 2018 and 29 April, 2019 respectively. For evacuating imported LNG, GTCL has already constructed 30" x 91 km transmission pipeline from Moheshkhali to Anowara, Chattogram and 42" x 30 km gas transmission pipeline from Anowara to Fouzdarhat with a view to transporting RLNG to Chattogram existing ring main pipeline of KGDCL and to deliver surplus gas to the national gas grid after meeting the demand of KGDCL. Besides, construction of parallel 42" x 79 km transmission pipeline from Moheshkhali to Anowara, construction of 42" x 7 km transmission pipeline from Moheshkhali zero point to Moheshkhali CTMS, construction of 36" x 181 km Chattogram-Feni-Bakhrabad transmission pipeline and construction of 30" x 67 km Dhanua-Elenga and West Bank of Bangabandhu Bridge-Nalka gas transmission pipeline are in progress



**Field instrument of SCADA System of GTCL**

including installation of gas transmission networks in the south and south-western region of the country for supplying gas to Bogura-Rangpur-Syedpur.

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.



## Titas Gas Transmission and Distribution Company Limited (TGT DCL)

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 (TGT DCL) 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 58 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.



**Brahmaputra River Crossing works through HDD method**

Presently, total length of pipeline owned by the company is 13,127.43 km including 52.63 km built during the FY 2018-19. The total number of customers of the company was 27,83,134 as on 30 June, 2018 which rose to 28,65,907 in June,



**Gas pipeline leakage repairing activities of TGTDC**

2019. Bulk customers of the company include 3 fertilizer plants, 17 government and 28 private power stations. The company hogs about 56.17% of natural gas market share in Bangladesh.

During FY 2018-19, total 584.84 BCF of gas was sold and a sales revenue of Tk. 1,34,243.3 million was earned and the total revenue was Tk. 1,36,220.9 million including meter rent and surcharge, which was Tk. 1,41,899.3 in the previous FY. During the FY, a sum of Tk. 1,30,732.2 million was realized against the revenue income of Tk. 1,36,220.9 million, which was Tk. 5,488.7 million less than the receivable. The company earned a net profit before tax and a net profit after tax of Tk. 6,266.3 million and Tk. 4,644.7 million respectively. The company paid Tk. 5,925.5 million to the Government exchequer during FY 2018-19. During the year the earnings per share (EPS) was Tk. 4.70.

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.

A project of Tk. 4,989.4 million financed by Japan International Cooperation Agency (JICA), Bangladesh Government (GoB) and TGTDC 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. The company has launched a dedicated call center to serve customers. During the FY 2018-19, 299 km illegal gas distribution line has been removed and around 1,12,000 illegal gas burners have been disconnected.



## Bakhrabad Gas Distribution Company Limited (BGDCL)

Bakhrabad Gas Distribution Company Limited (BGDCL), previously named as Bakhrabad Gas Systems Limited (BGS), 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-Chattogram and 20" x 69 km Bakhrabad-Demra gas transmission pipelines were handed over to GTCL leaving only the responsibility for marketing gas in the Chattogram division excluding Brahmanbaria district and Kashba and Bancharampurupazilas (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 pipelines of different categories constructed by the company up to 30 June, 2019 was 3,890.96 km. The cumulative gas connection stood at 4,91,212 as on 30 June, 2019 which includes 19 power, 1 fertilizer, 171 industrial, 78 captive power, 2,139 commercial, 91 CNG and 4,88,713 domestic (Burner) connections.

During the FY 2018-19, BGDCL sold 129.25 BCF gas to its customers, of which power plants consumed 87.30 BCF (67.55%). The company earned Tk. 21,431.10 million as sales revenue, net profit before tax stood at Tk. 818.40 million and paid Tk. 1,469.90 million to the national exchequer. The company purchased 129.30 BCF gas and sold 129.25 BCF gas this year.

During the year, under the loan agreement signed between BGDCL and GTCL, an amount of Tk. 444.60 million was paid to GTCL as loan against "Moheshkhali Zero Point Gas Transmission Pipeline Project".

During the FY 2018-19, the gas connections of 966 nos. of different categories of customers were disconnected due to non-payment of gas bills amounting to Tk. 384.60 million. Besides, 74 km of illegal pipeline of different diameters has been removed during the year.

Under the e-service innovation activities undertaken by access to information (a2i) of the Prime Minister's Office, e-filing activities have been launched in BGDCL. Collection of gas bills through bill-pay system of Grameen Phone has been continuing and customers are paying their gas bills through mobile phones, internet and in the counter of bank through online system. The company has already established e-tendering procedure for inviting bid.



**Pipeline construction work**



## Jalalabad Gas Transmission and Distribution System Limited (JGTDSL)

The natural gas was first discovered in Sylhet during mid-fifties and its commercial use began during early sixties with the supply of gas to the Chhatak Cement Factory and Fenchuganj Fertilizer Factory in the sacred soil of Hazrat Shahjalal (R). The activities of Jalalabad gas was initially started as a project in 1977. Thereafter, Jalalabad Gas Transmission and 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 and distribution system under the management of Petrobangla with the responsibility of distribution and marketing natural gas to all categories of customers in its franchise area consisting of Sylhet Division.

The company possessed a total of 3,822.73 km gas network comprising of 466.55 km transmission, 1,336.73 km distribution, 1,224.64 km feeder mains and service lines and 794.81 km other (customer financing) pipelines. During the FY 2018-19, the company constructed 3.83 km pipelines including 3.32 km feeder mains and service lines and 0.51 km others. During the year, the company provided 18 new connections which included 1 power, 3 captive power, 2 CNG, 2 tea-estate, 6 industrial, 3 commercial and 1 domestic connections. The cumulative gas connection stood at 2,23,666 as on 30 June, 2019 which includes 17 power, 1 fertilizer, 103 industrial, 116 captive power, 1,689 commercial, 97 tea-estate, 59 CNG and 2,21,584 domestic (Burner) connections.

During the FY 2018-19, the gas sales of the company was about 134.02 BCF of which power plants consumed 89.79 BCF (67%) and others 44.23 BCF. During the year, the company earned Tk. 21,894.2 million as revenue which included sales revenue of Tk. 20,143.5 million and other

income of Tk. 1,750.7 million, Tk. 2,117.2 million as net profit before tax and Tk. 1,376.2 million after tax. The company paid Tk. 1,254.4 million to the national exchequer.

During the year, gas connection of 2,274 numbers of different categories of customers i.e. 2 industrial, 1 CNG, 1 tea estate, 98 commercial and 2,172 domestic customers have been disconnected due to non-payment of gas bills amounting to Tk. 87.28 million. Of which, gas connection of 2 industrial, 1 tea estate, 65 commercial and 1,960 domestic customers i.e. a total of 2,028 numbers of connections of the customers have been reinstated by realizing Tk. 54.85 million.

With a view to building digital Bangladesh, online gas bill payment system has been introduced in the Company by which a customer can pay their gas bills at any time without appearing any bank through mobile internet using debit & credit card with Master/VISA logo issued from any bank. Real time gas bill collection system has been introduced through bKash Mobile Wallet and other Mobile Wallet or Apps of various mobile financial service provider approved by Bangladesh Bank. JGTDSL also introduced real-time gas bill collection system through Mobile Phone Operator's. Mobile Wallet Gpay of Grameenphone Ltd. and RobiCash of Robi Axiata Limited. JGTDSL is pioneer to collect gas bill through auto-debit standing instruction of One Bank Ltd. If these systems are executed, it will play a positive role in revenue collection of the company.



## 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 2018-19, a total of 7.05 km of pipeline of various diameters has been constructed and by the end of June, 2019 the company encompassed a network of 1,642.09 km pipeline.

At the end of FY 2018-19, the company provided gas connection to 1,29,322 customers including 12 new gas connections (9 industries, 1 captive and 2 power plants) to new customers. During this fiscal year a total of 45.16 BCF of gas was sold by the company as against of 20.44 BCF gas in the previous year. The company earned Tk. 7,737.00 million revenue from sales during FY 2018-19 and earned Tk. 1,029.99 million as net profit before tax. The company paid Tk. 635.40 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 IshwardiEPZ), Bogura, Rajshahi and other important areas for carrying the benefits of gas facility on the doorstep of the masses.

A DPP prepared for supplying the natural gas through pipeline at Rangpur Division covering Rangpur, Nilphamari, Pirganj town and its adjoining areas already placed for approval to Energy & Mineral Resources Division. The Ishwardi EPZ DRS up gradation funded by the Bangladesh Export Processing Zones Authority (BEPZA) has been planned to implement. Besides, the company has future plan to construct for supplying the natural gas through pipeline to cover the government BEZA (Lalpur-Natore, Poba-Rajshahi, Shahjahanpur-Bogura, Kurigram Sadar- Kurigram, Nilphamari Sadar-Nilphamari and Debiganj-Panchagarh), private BEZA (Sirajganj sadar, Belkuchi-Sirajganj), BSCIC industrial park (Sirajganj Sadar-Sirajganj, Shahjahanpur-Bogura, Khorkhori Bypass-

Rajshahi) and Bangabandhu Sheikh Mujib hi-tech park (Rajshahi). DPP preparation is underway to install domestic pre-paid gas meters in existing non-metered residential double burners.

PGCL has been conducting drives against gas pilferage and illegal activities regularly. A total of 1,146 nos. of gas connections have been disconnected for illegal gas consumption and gas bill default in FY 2018-19 where 1,016 domestic, 29 commercial and 1 industrial connections are included. On the other hand, by recovering the arrear gas bills including the amount for penalty a total of 890 nos. customers have been provided gas reconnection.

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. 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, e-filing activities have been fully launched in PGCL. Payment of gas bill through online has already been implemented in the company. Information pertaining to up-dated status regarding payment of gas bill has been provided to the customer through SMS. Besides, customer services are also going on uninterruptedly through hotline nos. 16514 (from any mobile) or 096130-16514 (from any BTCL connection).

Under the Government performance management system, annual performance agreement (APA) was signed between Petrobangla and PGCL for the FY 2018-19. PGCL has achieved 100% of its targets set in the fields of gas sales, procurement of gas equipment, construction of gas pipelines, disconnection of illegal and defaulter customers, installation of EVC meter, human resources development, implementation of APA efficiently, implementation of e-filing system, implementation of innovative ideas/small improvement project (SIP) and updating the list of tangible and intangible assets.



## 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 BGSL 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 2018-19 stood at about 113.88 BCF. The company earned Tk. 28,442.20 million (including operational income) as sales revenue and Tk. 5,682.60 million as net profit before tax. The company paid Tk. 3,483.70 million to the national exchequer during this year. The company purchased 112.01 BCF gas and sold 113.88 BCF gas this year. As a result, the system gain of the company stood at 1.87 BCF i.e. 1.67%. The cumulative gas connection stood at 6,02,220 as on December, 2019 which includes 5 power, 4 fertilizer, 1,110 industrial, 188 captive power, 2,856 commercial, 2 tea-garden, 70 CNG and 5,97,985 domestic connections.

KGDCL is the first among the companies under Petrobangla that took the bold initiative in 2014 in order to develop web based software system for online gas billing. This system has been introduced to ensure easy and hassle free bill payment by all categories of customer of the company. All types of consumers through different branches of 23 Banks are being able to pay bills online at any time from any part of the country. The company is now performing official work to a large extent through e-nothi system. To develop the service delivery system of the consumers, digital mapping as a pilot zone of gas pipeline network and installation of KGDCL has already been completed for the city area. The company is publishing its activities through the website in order to improve customer service and easy access to information.

In order to prevent misuse and effective use



**DRS-2 of KGDCL at Bangabandhu Sheikh Mujib Shilpa Nagar**

of natural gas, a project of Tk. 2,465.60 million financed by Bangladesh Government (GoB), Japan International Cooperation Agency (JICA) and KGDCL to install 60,000 nos. of pre-paid gas meters in domestic gas connections in Chattogram city has already been completed within the timeline of 30 June 2019. As a result, wastage of valuable natural gas would be reduced by 50% (approx). Another project has been undertaken for the up-gradation of KGDCL gas distribution network, estimating cost of Tk. 3,396.80 million by KGDCL's own fund. Under this project, pipeline will be constructed to receive imported LNG in KGDCL system and to supply gas to Mirasharai Economic Zone, Chattogram. To protect existing pipeline from corrosion in KGDCL franchise area, properly monitoring, necessary maintenance and development works are continuing.

KGDCL has been conducting drives against gas pilferage and illegal activities regularly. During FY 2018-19, a total of 8,284 nos. of illegal gas connections were disconnected and earned Tk. 101.60 million as revenue from unauthorized and unscrupulous customers.



## 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 service to VERL 34.5 MW RPP, Aggreko 95 MW RPP, Bhola 225 MW CCPP (BPDB), 2 captive, 3 commercial, 4 industrial, 25 metered domestic connections and 2,261 non-metered domestic customers in the island district Bhola. In addition, gas is being supplied to gas based 410 MW combined cycle power plant (CCPP) at Bheramara, Kushtia. During the FY 2018-19 around 34.05 BCF gas has been supplied to this power plant and 0.54 BCF gas to other non-bulk customers. On an average 94.80 MMscfd gas is being supplied to the different customers in SGCL franchise area.

With a view to supplying 38 MMscfd gas to NutanBidyut (BD) Limited (NBBL)'s 220 MW CCPP (IPP) at Borhanuddin, Bhola, a gas supply agreement (GSA) between SGCL and NBBL was signed on 28 August, 2017. To supply gas to the power plant, notification of award (NOA) has been issued to the successful bidder to construct 12" x 7 km pipeline from Shahbazpur Gas Field, Bhola to the said 220 MW CCPP including one regulating and metering station (RMS) of 48 MMscfd capacity and as per contract, construction of pipeline and RMS will be completed within March, 2021. As the permanent pipeline and RMS construction are being delayed, temporary RMS and pipeline construction works financed by NBBL have already

been completed and will be commissioned very soon.

On the other hand, the construction works of 24" x 11 km and 20" x 2.5 km gas pipelines from GTCL's Arongghata CGS, Khulna to the RMS of Rupsha 800 MW CCPP and Khulna 225 MW CCPP, Khalishpur, Khulna respectively with the financing of North West Power Generation Company Limited (NWPGL) have been started on 1 October, 2019 and expected to be completed within 2020. In addition, the Rupsha 800 MW CCPP and its RMS construction are expected to be completed by July, 2022. The RMS of Khulna 225 MW CCPP has already been built at NWPGL's own financing. With respect to adequate gas availability, it is expected to supply gas to Khulna 225 MW CCPP at a rate of 35 MMscfd from December, 2020 and Rupsha 800 MW CCPP at a rate of 62.50 MMscfd from July, 2022 and 125 MMscfd from December, 2022.

During the FY 2018-19, the company earned a total revenue of Tk. 3,436.16 million out of which Tk. 3,179.54 million from sales of 34.59 BCF gas and rest Tk. 256.62 million from other operational income. In this year, company's net profit before tax and after tax stood at Tk. 613.78 million and Tk. 398.96 million respectively and paid Tk. 261.82 million to the national exchequer.

SGCL has already joined national e-Government procurement (e-GP) portal. Certificate regarding gas bill payment status have been sent to all customers to avoid customer harassment and for the confirmation of due bill at the end of every calendar year. During the FY 2018-19, the gas connections of 6 nos. were disconnected due to illegal use of gas.



## 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 3.64 BCF of CNG is being used every month from 600 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. Two terminal use agreements (TUA) were signed with Excelerate Energy Bangladesh Limited (EEBL) and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 FSRUs at Moheshkhali approximately 90 kilometers

south of Chattogram for supplying 500 MMscfd of LNG each. After installation of the FSRU by EEBL, the pre-commissioning and commissioning started on 12 August, 2018 and RLNG supply to our national grid started commercially from 19 August, 2018. Total LNG import with this terminal was 7,662,093 cubic meters and total RLNG supply to our national grid was 4,553,815,077.56 cubic meters up to 31 December, 2019. After set-up of the other FSRU by Summit, commissioning took place on 29 April, 2019 and RLNG supply to national grid started commercially from 30 April, 2019. Total LNG import with this terminal was 2,734,979 cubic meters and total RLNG supply to our national grid was 1,613,621,102.27 cubic meters up to 31 December, 2019.

In addition, to install a land-based LNG terminal of a capacity of 1,000 MMscfd at Matarbari, Cox's Bazar, an Expression of Interest (EoI) was invited



**Excelerate Energy Bangladesh Limited (EEBL) FSRU**

29 January 2019 for selecting a terminal developer and a total of 12 firms have submitted proposals. Acquisition of 45.23 acres of land at Matarbari is in progress. Besides, finalisation of a gas supply agreement (GSA) between Indian Oil Corporation Ltd (IOCL) and Petrobangla is in progress for starting the supply of LNG to Bangladesh through cross-border pipelines by the end of 2022.

To import LNG from Qatar Gas, a sale and purchase agreement (SPA) was signed on 25 September,

Additionally, master sale and purchase agreement (MSPA) was signed with 14 nos. suppliers/traders to purchase LNG from spot market.

In the FY 2018-19, the company earned Tk. 3,920.00 million as revenue before payment of VAT from sales of CNG, LPG, MS and HSD. The company earned an amount of Tk. 1,406.71 million as net profit before tax and made a payment of Tk. 1,025.35 million to the national exchequer.



**LNG Cargo from Spot Market**

2017 with RasLaffan Liquefied Natural Gas Company Limited (3) to ensure the supply of 1.8 - 2.5 MTPA LNG on DeliveryExship (DES) basis for 15 years. Qatar Gas has been supplying LNG to the above FSRUs and the total LNG import stood at 7,516,951 cubic metres (3309181 ton) through 54 cargos up to 31 December, 2019. Another SPA was signed with Oman Trading International (OTI) on 6 May, 2018 for supplying 1.0 MTPA LNG as base annual contact quantity (BACQ). OTI has been supplying LNG to the FSRUs and the total LNG import stood at 2,880,121 cubic metres (1279184 ton) through 20 cargos up to 31 December, 2019.

With a view to enhancing the speed of work and augmenting efficiency, introduction of smart card payment system's and automatic vehicle identification (AVA) system in CNG filling station. The website of the company has linked to the national web portal, tender functions are being completed through e-GP. Since October 2017, the company has been communicating with other offices and agencies and disposing of files using e-filing system through a live server.



## 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.

(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 Xuzhou Coal Mining Group



**Coal stock yard of BCMCL**

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

Corporation Limited (XMC) and CMC on 4 June, 2005 for a period of 71 months with a contract price of US\$ 82.30 million. The company went into commercial production on 10 September, 2005. The contract was completed on 10 August, 2011.

On expiration of the first M&P contract, the second "Management, Production, Maintenance & Provisioning Services (MPM&P)" contract was signed on 6 August, 2011 with the successful

bidder consortium of XMC-CMC. This MPM&P contract commenced on 11 August, 2011 and completed on 10 August, 2017. To continue uninterrupted production from the mine, the third 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 and will continue up to 10 August, 2021.

In the FY 2018-19, total coal production was achieved by 8,05,696 metric tons. The present commercial production rate is 3,000-3,500 metric tons/day. During the FY, the company earned Tk. 9,078.58 million from sale of Coal and Tk. 574.92 million from other sources comprising a total amount of Tk. 9,654.50 million. During this period Tk. 8,289.74 million was spent as cost of operation and expenditure against other heads. In this fiscal year, the net profit stood at Tk. 822.52 million following deduction of Tk. 542.25 million provisioned for income tax, which was Tk. 1,413.30 Million in the previous fiscal year. In addition to this, the actual revenue expenditure was Tk. 7,259.68 million in the fiscal year under consideration against an allocated budget of Tk. 7,604.00 million which is Tk. 344.32 million or 4.53% less than the allocated budget. During the FY 2018-19, the company deposited Tk. 2,634.80 million to the Government exchequer.

To enhance the present production of coal the company has undertaken the project "Feasibility Study for Development of Dighipara Coal Field at Dighipara, Dinajpur, Bangladesh" in 2016. This feasibility study project has been taken to assess the probability to develop a coal mine with a production capacity of 3 million tons coal per year with BCMCL's own funding. As per SSP the implementation period of the project was 1 January 2017 to 30 June 2019 and it was extended up to 31 March 2020. To execute the project activities a contract was signed between BCMCL and a consortium of MIBRAG

Consulting International GmbH, Germany; FUGRO Consult GmbH, Germany and RPM Global, Australia on 30 May 2017 at a contract price of Tk. 1,674.50 million. After the completion of project physical activities including EIA, EMP, and ESIA studies etc. the Consortium submitted the final report of the project in February 2020. As per the findings of the consultant the geological reserve of this coal field is 706 million metric tons and 90 million metric tons coal can be extracted from Dighipara Coal Field by construction and operation of an underground coal mine.

Subsidence monitoring activities are conducted by BCMCL on regular basis in the FY 2018-19. There is a joint schedule program by BCMCL and Chinese XMC/CMC consortium for surface subsidence monitoring (three times in a month). The company invited 12 (twelve) bids via e-tendering procedure in the FY 2018-19. E-filing system was introduced in the company from 20 March, 2017. Using E-nothi system 70% to 80% official filling works has been accomplished in the FY 2018-19. The average position of BCMCL is 20th as per evaluation carried out by 'a2i' among 77 big category Companies/ Institutions under various corporations.



**Coal Cutting Sharer Machine of BCMCL**



## Maddhapara Granite Mining Company Limited (MGMCL)



**Mining Operation in progress at 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 of great importance, 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 rock and completed development of 6 nos. of new stopes.

In the FY 2018-19, a total 10,67,646.63 metric tons of granite was produced and 7,31,493.56 metric tons was sold. The company earned Tk. 1,631.50 million from the sale of granite and made a payment of Tk. 330.28 million to the national exchequer. Mentionable, a total of 5.6 million metric tons of granite was produced up to 31 December, 2019.

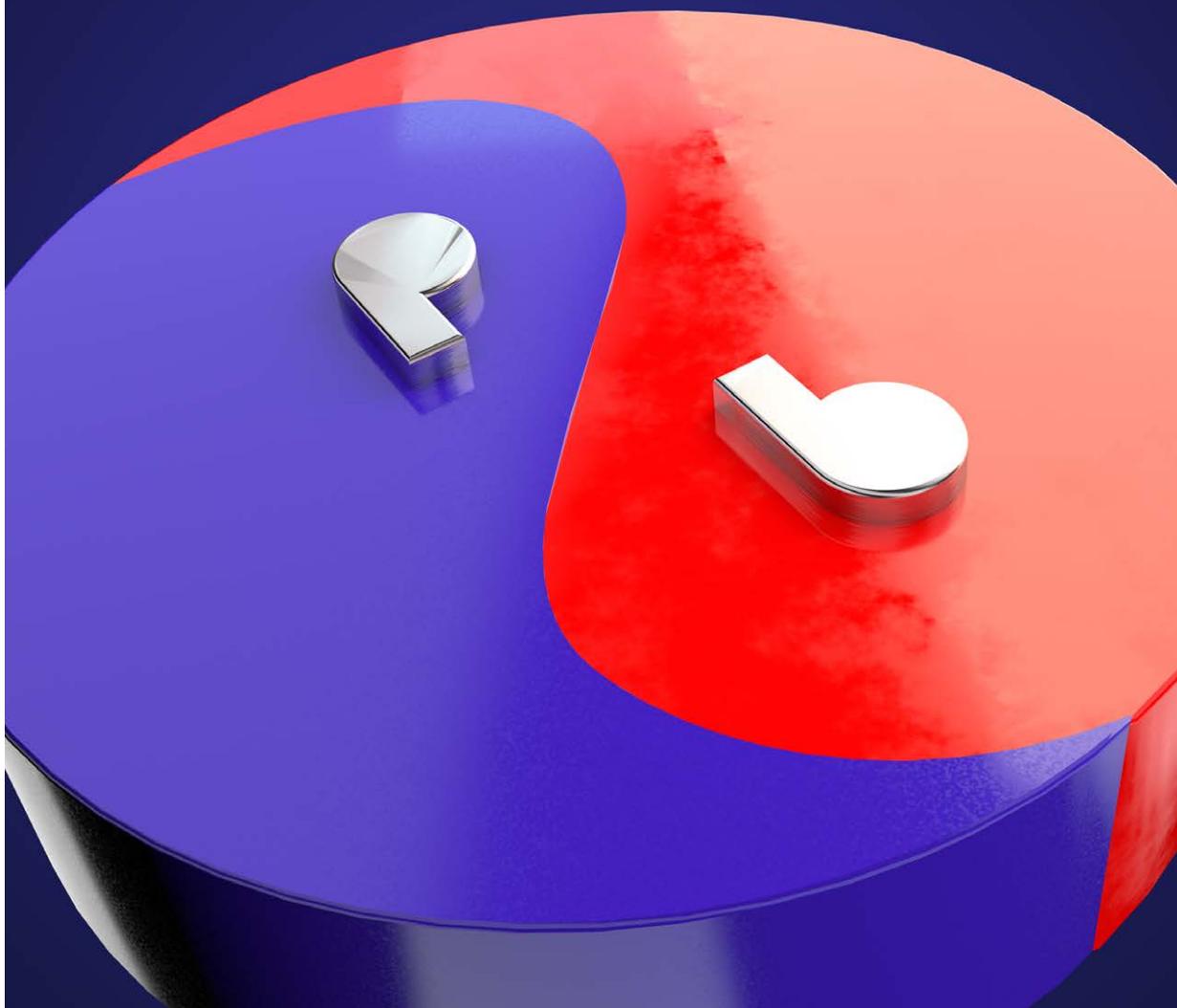
In order to determine the possibility of increasing production of granite rock and preparation of granite slabs through expansion of the mining zone/ area of Maddhapara Mine, a proposal for feasibility study/survey (PFS) captioned as "Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine" financed by Petrobangla 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 final report of the project has been finalized. According to the final report, there are many fractures, fishers in underground Granite rock and it would be not possible to produce Granite slab. But for construction works a newly mine can be developed with a capacity of 11,000 metric tons of crushed Granite rock per day. A total of 113.70 million metric tons of granite rock can be possible to produce during 40 years from the proposed new mining area of 2.25 square kilometers. Completing all physical works, PCR of the project has been submitted.

## Development Programmes for the Fiscal Year 2018-19

The annual development programme of Petrobangla for the FY 2018-19 had a total allocation of Tk. 14,614.3 million, which includes Tk. 6,153.4 million as project aid. The programme consists of 9 projects of which 8 are foreign-aided and 1 is GoB funded. In addition, there are 13 projects financed by the

corporation/companies itself (self financing) involving total allocation of Tk. 15,620.6 million, where cash foreign exchange (CFE) involvement is Tk. 5,240.0 million and local currency is Tk. 10,380.6 million. Furthermore, there are 11 projects under gas development fund (GDF) in the same fiscal year with

a total allocation of Tk. 4,692.8 million, where CFE involvement is Tk. 2,872.0 million and local currency is Tk. 1,820.8 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 2018-19 (Taka in Million)**

No.	Name of the project	Project Period	Executing Agency	Estimated Cost (PA)	Development Partners
1	Bakhrabad-Siddhirganj Gas Transmission Pipeline Project (30" x 60 km)	July'07-Dec.'18	GTCL	8497.0 (5743.2)	World Bank
2	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	1769.8 (1264.2)	JICA
3	Natural Gas Efficiency Project (Installation of Wellhead Compressors at Titas Gas Field Location-C and Narshingdi Gas Field)	July'14-June'22	BGFCL	7250.0 (6387.0)	JICA
4	Natural Gas Efficiency Project (Installation of Prepaid Gas Meter for KGDCL)	July'14-June'19	KGDCL	2224.7 (1541.8)	JICA
5	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'20	GTCL	8285.1 (4241.1)	JICA
6	Natural Gas Efficiency Project (Installation of Prepaid Gas Meter for TGTDCCL)	Jan.'15-Dec.'20	TGTDCCL	4989.4 (4406.2)	JICA
7	Installation of Wellhead Compressure at Location-A of Titas Gas Field	July'16-Dec.'20	BGFCL	9100.0 (7530.0)	ADB
8	Construction of Chattogram-Feni-Bakhrabad Gas Transmission Parallel Pipeline Project	July'16-Dec.'20	GTCL	24794.1 (7348.9)	ADB
<b>Sub-Total (foreign-aided)</b>				<b>66910.3 (38462.5)</b>	

**B. Ongoing Projects (GoB funded) : FY 2018-19** (Taka in Million)

No.	Name of the project	Project period	Executing agency	Estimated cost (CFE)
1	Construction of Bogura-Rangpur-Syedpur Gas Transmission Pipeline Project	Oct.'18- June'21	GTCL	13785.5 (4731.8)
<b>Sub-Total (GoB)</b>				<b>13785.5 (4731.8)</b>

**C. Ongoing Projects (self financing) : FY 2018-19** (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-June'19	SGFL	3744.5 (2077.1)
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	4979.8 (3698.7)
3	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-Sep.'18	BCMCL	723.9 (79.1)
4	Gas Supply to Srihotta Economic Zone, Sherpur, Moulvibazar	March'16-Feb.'19	JGTDSL	378.2 (220.8)
5	Feasibility Study for Development of Dighipara Coal Field, Dinajpur	Jan.'17-June'19	BCMCL	1798.8 (1237.0)
6	Techno Economic Feasibility Study and Engineering Services for Construction of Land Based LNG Terminal at Maheshkhali, Kutubdia at Cox's Bazar and Payra at Patuakhali	Jan.'17-Oct.'18	Petrobangla	823.2 (504.3)
7	Workover of 3 Wells (Kailashtila-1, Rashidpur-2 and Rashidpur-6) under Sylhet Gas Fields Limited	Dec.'16-June'19	SGFL	1343.9 (450.0)
8	Construction of Gas Pipeline for Mirsarai Economic Zone and KGDCL Gas Distribution Network Upgradation Projects	May'17-June'19	KGDCL	3986.2 (1894.7)



No.	Name of the project	Project period	Executing agency	Estimated cost (CFE)
9	Construction of Moheshkhali-Anowara Gas Transmission Parallel Pipeline Project	July'16-Dec.'19	GTCL	11574.2 (5189.6)
10	Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine	Nov.'17-Aug.'19	MGMCL	481.2 (365.7)
11.	Construction of Anowara-Fouzderhat Gas Transmission Pipeline Project	Apr.'16 - June'19	GTCL	7761.1 (7383.6)
12	Reviewing of 3D Seismic Survey Data and Reports of Sylhet (Haripur), Kailashtila and Rashidpur Structures of Sylhet Fields Limited	March'17-Sep.'18	SGFL	126.2 (104.5)
13.	Construction of Maheshkhali-Zero Point (Kaladiar Char)-CTMS (Dhalghat Char) Gas Transmission Parallel Pipeline Project	Oct.'18 - June'20	GTCL	3274.0 (2246.7)
<b>Sub-Total (self financing)</b>				<b>40995.2 (25451.9)</b>

**D. Ongoing Projects (under GDF): FY 2018-19****(Taka in Million)**

No.	Name of the project	Project period	Executing agency	Estimated cost (CFE)
1	3-D Seismic Project of BAPEX	Dec.'12-Nov.'19	BAPEX	2477.0 (1134.6)
2	Drilling of Well no. Sylhet-9 (Appraisal/ Development Well)	Dec.'13 - June'20	SGFL	1712.7 (533.0)
3	RUPKALPO-1 Drilling Project : 2 Exploratory Wells (Srikail East-1 and Salda North-1)	July'16-June'20	BAPEX	1620.9 (1023.7)
4	RUPKALPO-2 Drilling Project : 2 Exploratory Wells (Semutang South-1 and Jakiganj-1)	July'16-June'20	BAPEX	2201.8 (1412.8)
5	RUPKALPO-3 Drilling Project : 2 Exploratory Wells (Kasba-1 and Madarganj-1)	July'16-Dec.'19	BAPEX	2162.1 (1423.9)
6	Procurement of 1 Drilling and 1 Workover Rig with Supporting Equipment for BAPEX	July'16-Dec'18	BAPEX	877.4 (745.2)

No.	Name of the project	Project period	Executing agency	Estimated cost (CFE)
7	RUPKALPO-5 Drilling Project : 2 Exploratory Wells (Srikail North-1 and Mobarokpur South East-1), 1 Development Well (Begumgonj-4) and 1 Workover (Begumgonj-3)	Apr.'17-June'19	BAPEX	1632.9 (1091.1)
8	RUPKALPO-9 Drilling Project : 2-D Seismic	Apr.'17-June'19	BAPEX	1233.8 (635.0)
9	Workover of 7 Wells at Titas, Habiganj, Narsingdi and Bakhrabad Gas Field	Jan.'17-Dec.'19	BGFCL	3545.0 (872.5)
10	2D Seismic Survey Over Exploration Block 3B, 6B, 7	Apr.'17-June'19	BAPEX	1880.0 (1500.0)
11	Drilling of Well no. Kailashtilla-9 (Appraisal/Development Well)	Nov.'13-Dec.'19	SGFL	1400.7 (609.9)
<b>Sub-Total (GDF)</b>				<b>20744.3 (10371.8)</b>
<b>Grand Total (foreign-aided + GoB + self financing + GDF)</b>				<b>142435.5 (79018.2)</b>

Source : Planning & Monitoring Division, Petrobangla.



National Energy Security Day, 2019

# Future Programmes

Energy is the driving force for the development of the country. The role of energy is important for the entire economic development such as poverty reduction and the overall development of the country. By achieving the GDP growth rate of over 8% 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 10 years until 2009 in the energy sector. As a result, the GDP growth of the country has been hampered in the industry and other production sectors including power sector. To overcome the stagnant situation, the present Government has been putting its best efforts 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, 2 FSRUs having the capacity of 500 MMscfd each have been installed at Moheshkahali for regasifying imported LNG and commenced transmission to national gas grid from August, 2018 and April, 2019 respectively. 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 (2019-2024)

Unit: BCF

Sector	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Power	1,667	1,731	2,078	2,078	2,225	2,054
Captive	697	779	899	1,008	1,130	1,168
Fertilizer	317	317	317	317	317	317
Industry	626	699	804	899	1,006	1,046
Commercial	31	33	34	34	34	34
Domestic	448	448	448	448	448	448
Tea-Estate	3	3	3	3	3	3
CNG	167	168	169	171	172	173
<b>Total</b>	<b>3,955</b>	<b>4,178</b>	<b>4,752</b>	<b>4,957</b>	<b>5,335</b>	<b>5,243</b>

Source : Production & Marketing Division, Petrobangla

## Plan for Production Augmentation

National exploration and production (E&P) companies (BAPEX, BGFCL and SGFL) and IOCs have planned a gas production augmentation programme. The programme includes exploration drilling, development drilling and work-

over on the onshore areas of Bangladesh. It is expected that, after successful completion, the programme will yield an additional amount of gas of 396 MMscfd through work-over and new drilling by the year 2023. In addition to this, the international

oil companies (IOCs) working in Bangladesh have planned to drill 3 exploration wells in the offshore areas during this period. The following table shows the summary of the activities for production augmentation.

**Table: Year-wise Drilling and Work-over Programmes**

FY	Exploration wells	Development wells	Work-over wells	Total wells
2018-19	-	-	9	9
2019-20	1	-	7	8
2020-21	4	-	9	13
2021-22	3	3	2	8
2022-23	3	4	3	10
<b>Total</b>	<b>11</b>	<b>7</b>	<b>30</b>	<b>48</b>

Source: BGFCL, SGFL, BAPEX and PSC Directorate.



**Beanibazar Gas Field of  
SGFL**

## 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 <sub>2</sub>				CO <sub>2</sub>
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	Kailashtila	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

## Natural Gas Tariff in Bangladesh

(As in December, 2019)

Taka/MCF

Effective From	Power	Fertilizer	Industry	Commercial	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
12.05.2011	-	-	-	-	-	-	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
01.08.2017	89.48	76.74	219.74	482.52	210.11	272.41	906.14	-	257.68	750.00	800.00
18.09.2018	89.48	76.74	219.74	482.52	210.11	272.41	906.14	-	257.68	750.00	800.00
01.07.2019	126.00	126.00	302.99	<sup>*651.28</sup> <sup>**482.52</sup>	302.99	392.18	991.08	-	356.80	925.00	975.00

\*Hotel &amp; restaurant, \*\*Small &amp; cottage industry

Source : Accounts Division, Petrobangla.



## Gas Fields in Production and Supply Scenario

(As in December, 2019)

Gas in MMscfd, Condensate in BBL

Company	Gas Field	Total Wells (No.)	No of Producing Wells	Production Capacity (MMscfd)	Production	
					Gas	Condensate
1. BGFCL	Titas	27	26	542	443.9	416.0
	Bakhrabad	10	7	43	42.1	40.0
	Habiganj	11	8	225	188.9	15.7
	Narsingdi	2	2	30	26.7	39.9
	Meghna	1	1	11	8.1	19.9
	<b>Sub-Total</b>		<b>51</b>	<b>44</b>	<b>851</b>	<b>709.8</b>
2. SGFL	Sylhet	8	1	6	3.6	26.9
	Kailashtila #1 (Silicagel)	4	1	13	6.0	37.1
	Kailashtila #2 (MSTE)	3	3	55	50.4	366.1
	Rashidpur	11	5	60	47.6	47.0
	Beanibazar	2	1	15	8.6	137.3
	<b>Sub-Total</b>		<b>28</b>	<b>11</b>	<b>149</b>	<b>116.2</b>
3. BAPEX	Saldanodi	4	2	3	4.6	0.7
	Fenchuganj	5	2	26	3.3	1.0
	Shahbazpur	5	4	50	34.4	3.4
	Semutung	6	2	3	0.9	0.0
	Sundalpur	2	1	5	7.2	0.4
	Srikail	4	3	40	32.0	81.1
	Begumganj	3	1	10	5.3	2.8
	Rupganj	1	0	8	0.0	00.0
	<b>Sub-Total</b>		<b>30</b>	<b>15</b>	<b>145</b>	<b>87.8</b>
<b>Sub-Total (1+2+3)</b>		<b>109</b>	<b>70</b>	<b>1145</b>	<b>913.8</b>	<b>1235.3</b>
<b>4. IOCs</b>						
CHEVRON	Jalalabad	9	7	270	240.4	1277.8
	Moulvibazar	9	5	42	21.6	4.4
	Bibiyana	26	26	1200	1301.7	8371.5
TULLOW	Bangora	6	5	103	103.2	305.0
	<b>Sub-Total</b>	<b>50</b>	<b>43</b>	<b>1615</b>	<b>1666.9</b>	<b>9958.8</b>
	Indigenous	159	113	2760	2581.0	11194.0
5. RPGCL	R-LNG	0	0	1000	602.4	0.0
	<b>Sub-Total</b>	<b>0</b>	<b>0</b>	<b>1000</b>	<b>602.4</b>	<b>0.0</b>
<b>Grand Total (1+2+3+4+5):</b>		<b>159</b>	<b>113</b>	<b>3760</b>	<b>3183.0</b>	<b>11194.0</b>

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
2017-2018	2777343	491647	223668	128290	602085	4370	4227403
2018-19	2865907	491453	223673	128220	602189	6947	4318389
Up to Dec., 19	2873147	491456	223658	128246	602220	8910	4327637

Source : Production & Marketing Division, Petrobangla.



## Natural Gas Reserve of Bangladesh

(As of 31 December, 2019)

Figure in BCF

SL No	Fields	Year of Discovery	Reserve Estimated By		GIIP	Recoverable Reserve			Cumulative Production (Dec, 2019)	Remaining Reserve w.r.t 2P (1 <sup>st</sup> Jan, 2020)
			Company	Year		Proved (1P)	Proved + Probable (2P)	Proved + Probable + Possible (3P)		
<b>A. Producing</b>										
1	Titas	1962	RPS Energy	2009	8148.9	5384.0	6367.0	6517.0	4786.50	1580.50
2	Habiganj	1963	RPS Energy	2009	3684.0	2647.0	2647.0	3096.0	2506.84	140.16
3	Bakhrabad	1969	RPS Energy	2009	1701.0	1052.9	1231.5	1339.0	840.48	391.04
4	Kailashtilla	1962	RPS Energy	2009	3610.0	2390.0	2760.0	2760.0	715.73	2044.27
5	Rashidpur	1960	RPS Energy	2009	3650.0	1060.0	2433.0	3113.0	642.63	1790.37
6	Sylhet/Haripur	1955	RPS Energy	2009	370.0	256.5	318.9	332.0	216.57	102.33
7	Meghna*	1990	RPS Energy	2009	122.1	73.95	73.95	101.0	73.95	-
8	Narshingdi	1990	RPS Energy	2009	369.0	218.0	276.8	299.0	210.44	66.36
9	Beani Bazar	1981	RPS Energy	2009	230.7	150.0	203.0	203.0	105.38	97.62
10	Fenchuganj	1988	RPS Energy	2009	553.0	229.0	381.0	498.0	161.15	219.85
11	Shaldanadi	1996	RPS Energy	2009	379.9	79.0	279.0	327.0	92.20	186.80
12	Shahbazpur**	1995	Petrobangla	2011	918.1	-	642.7	-	77.37	565.31
13	Semutang	1969	RPS Energy	2009	653.8	151.0	317.7	375.1	13.31	304.39
14	Sundalpur Shahzadpur	2011	BAPEX	2012	62.2	25.0	35.1	43.5	14.73	20.37
15	Srikail	2012	BAPEX	2012	240.0	96.0	161.0	161.0	92.73	68.27
16	Begumganj	1977	BAPEX	2014	100.0	14.0	70.0	-	3.62	66.38
17	Jalalabad*	1989	D & M	1999	1491.0	1356.71	1356.71	1185.0	1356.71	-
18	Moulavi Bazar	1997	Unocal	2003	1053.0	405.0	428.0	812.0	327.09	100.91
19	Bibiyana	1998	D & M	2008	8350.0	4415.0	5755.4	7084.0	4075.02	1680.41
20	Bangura	2004	Tullow	2011	1198.0	379.0	522.0	941.0	456.99	65.01
<b>Sub-total A:</b>					<b>36884.7</b>	<b>20382.1</b>	<b>26259.8</b>	<b>29186.6</b>	<b>16769.45</b>	<b>9490.34</b>
<b>B. Non-Producing</b>										
21	Kutubdia	1977	HCU	2003	65.0	45.5	45.50	45.5	0.00	45.50
22	Bhola North1	2018	BAPEX	2018	621.9	-	435.32	-	-	435.32
<b>Sub-total B:</b>					<b>686.9</b>	<b>45.5</b>	<b>480.8</b>	<b>45.5</b>	<b>0.00</b>	<b>480.82</b>
<b>C. Production Suspended</b>										
23	Rupganj	2014	BAPEX	2014	48.0	-	33.60	-	0.68	32.92
24	Chattak***	1959	HCU	2000	1039.0	265.0	474.0	727.0	26.46	447.54
25	Kamta	1981	Niko/Bapex	2000	71.8	50.3	50.3	50.3	21.1	29.20
26	Feni	1981	Niko/Bapex	2000	185.2	125.0	125.0	175.0	62.4	62.60
27	Sangu****	1996	Cairn/Shell	2010	899.6	544.4	577.8	638.7	487.91	89.85
<b>Sub-total C:</b>					<b>2243.6</b>	<b>984.7</b>	<b>1260.7</b>	<b>1591.0</b>	<b>598.5</b>	<b>662.11</b>
<b>Grand Total (A+B+C) in BCF</b>					<b>39815.2</b>	<b>21412.3</b>	<b>28001.27</b>	<b>30823.1</b>	<b>17368.00</b>	<b>10633.27</b>
<b>Grand Total (A+B+C) in TCF</b>					<b>39.8</b>	<b>21.4</b>	<b>28.00</b>	<b>30.82</b>	<b>17.37</b>	<b>10.63</b>

Note: \* The cumulative production of Meghna and Jalalabad gas field have been shown as 1P (and 2P) reserve. Reserve re-evaluation is under way.

\*\* 2P Reserve of Shabazpur gas field including Shabazpur East-1 re-estimated by BAPEX as 642.7 Bcf.

\*\*\* 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 1<sup>st</sup> October, 2013

## 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)
TGTDC	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-VS3	20	3.50	700	200
	28 Ashuganj - Monohardi	20	37.00	1000	425
	29 Dhaka Clean Fuel (GTCL Part)	20	60.00	1000	230
	30 Bonpara - Rajshahi	12	53.00	1000	150
	31 Hatikumrul - Bheramara	30	84.00	1000	400
	32 24" Dia 8 Km From Titas Gas Field - AB Pipeline Project	24	8.00	1050	330
	33 Srikail Gas Field (Location 2) - AB Pipeline Project	20	1.50	1000	250
	34 Bibiyana - Dhanua	36	137.00	1000	640
	35 Bakhrabad - Siddhirganj	30	60.00	1000	450
	36 Gas transmission pipeline from Titas Gas Field (Location-G) to AB Pipeline	24	7.70		100
37 Ashuganj - Bakhrabad 2	30	61.00	1000	450	
38 Bheramara-Khulna	20	165.00	1000	200	
39 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	
40 Moheshkhali-Anowara gas transmission pipeline	30	91	1000	500	
41 Anowara-Fouzdarhat gas transmission pipeline	42	30	1000	1000	
KGDCL	41 Chattogram Ring Main	24/20/16	59.48	350	330
	43 KPMSpaur	8	36.15	350	18
	44 Chattogram - Rauzan	20	18.00	350	150
	45 Semutang - Chattogram	10	56.00	960	70
JGTDSL	45 Haripur - NGFF	-	43.00	1000	62
	47 Kailashtila - Kuchai	8	13.00	1000	62
	48 Kuchai - Chatak	6	39.00	1000	36
	49 Devpur - Kumargaon	6	11.00	1000	36
	50 Habiganj - Shahji Bazar	8	2.00	1000	53
	51 Shahaji Bazar - Shamsheer Nagar	6	65.00	1000	11
	52 Srimongal - Moulvibazar	6	26.00	1000	11
	53 Chatak - Tengratila	4	19.00	1000	10
	54 Tengratila - Sunamganj	4	13.00	1000	10

## Category-wise Annual Gas Sales

(FY 1990-91 to FY 2018-19)

Gas volume in billion cubic feet (BCF)

Year	Production & Imported			Bulk Sales			Non Bulk Sales					Total Sales	UFG	Total Production	
	Gas Production	R-LNG	Total	Power	Fertilizer	Sub. Total	Industry	Domestic	Commercial	Tea/CNG	Brick Field				Sub Total
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	969.2			*564.1	49.1	613.2	163.1	154.4	8.7	47.0	1.0	374.1	987.3	(19.6)	967.7
2017-18	968.7			*559.2	43.0	602.2	166.6	158.0	8.2	46.2	0.9	379.8	982.0	(13.9)	968.0
2018-19	961.7			*608.4	57.7	666.1	164.5	158.9	7.9	43.4	1.0	375.7	1041.8	18.3	1060.1
Up to (Dec., 19)	462.6	101.91	564.5	322.7	23.0	345.7	84.3	67.3	3.8	20.7	0.9	177.0	522.8	0.76142	523.5

\* 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/VAT	Royalty	Total
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
2017-18	121934.7	4435.2	19440.0	8435.8	2306.7	673.7	157226.0
2018-19	79089.0	4435.2	19424.0	8063.9	3516.5	326.1	114854.7

Source: Accounts Division, Petrobangla



Compressor Station at Ashuganj under GTCL



## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Statement of Profit or Loss and Other Comprehensive Income

For the year ended 30 June 2019

Particulars	2019 BDT	2018 BDT
<b>Income</b>		
Sales proceeds from IOC gas and condensate	76,263,864,315	48,221,458,031
Transport fare recovery	773,885	689,774
Sales Proceeds of LNG	71,507,769,610	-
Other operating Income from LNG operation	4,170,623,703	-
Petrobangla Charge	1,322,736,976	-
Rental income	18,756,949	29,471,261
Miscellaneous income	38,635	5,519,092
	<b>153,284,564,073</b>	<b>48,257,138,158</b>
<b>Expenditure</b>		
Cost of sales of gas and condensate	80,802,463,198	69,079,155,287
Cost of LNG Cargo and Re-gasification	118,125,245,779	-
Personnel expense	959,340,193	789,633,756
Professional services	8,398,836	21,435,154
Promotional expense	5,665,536	6,157,334
Power expense	6,392,063	4,233,170
Communication expense	1,447,143	1,056,278
Transport expense	36,813,315	30,128,346
Occupancy expense	55,576,428	25,772,193
Administrative expense	4,871,299	5,850,756
Miscellaneous expense	5,533,181	14,110,212
Depreciation	34,970,357	34,391,287
Financial expense	903,361	810,735
<b>Sub-Total Expenditure</b>	<b>200,047,620,689</b>	<b>70,012,734,510</b>
Petrobangla actual cost recovery	(314,448,000)	(1,442,722,000)
<b>Total Expenditure</b>	<b>199,733,172,689</b>	<b>68,570,012,510</b>
<b>Operating profit/(loss)</b>	<b>(46,448,608,615)</b>	<b>(20,312,874,352)</b>
Subsidy received form govt for LNG Operation	25,000,000,000	-
<b>Operating Profit/Loss after subsidy</b>	<b>(21,448,608,615)</b>	<b>(20,312,874,352)</b>
<b>Non-operating income</b>		
Interest on short term deposit	117,969,124	88,716,341
Interest on house building loan	14,132,003	13,594,689
Interest on motor cycle loan	359,065	239,474
Interest on computer loan	27,000	58,750

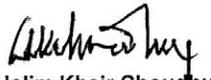
Subsidy received from govt for SD VAT payment	-	-
PSC financial income from STD bank account	2,119,563,662	959,600,000
PSC financial income from FDR	1,666,631,320	1,249,134,203
LNG Financial Income from STD Bank A/C	345,506,783	-
Other Non-Operating Income of PSC	587,761,571	648,411,124
<b>Total non-operating income</b>	<b>4,851,950,528</b>	<b>2,959,754,581</b>
<b>Income tax expenses</b>		
Current Tax	(953,465,361)	(831,007,172)
Deferred tax income/(Expense)	6,566,116	(72,724,420)
Net surplus/(deficit)	<b>(17,543,557,332)</b>	<b>(18,256,851,362)</b>
<b>Appropriation account</b>		
Un-appropriated surplus brought forward	(107,156,242,331)	(84,425,593,368)
Prior year's adjustment	(17,105,036)	3,401,728
Prior year's adjustment for PSC	1,987,389,614	(4,477,199,329)
Fund Transfer from SFSF to IOC SD/VAT Payment	36,944,521,502	-
Net profit/(loss) after Tax for the year	(17,543,557,332)	(18,256,851,362)
	<b>(85,784,993,583)</b>	<b>(107,156,242,331)</b>

The annexed notes form an integral part of these financial statements

  
\_\_\_\_\_  
Director

  
\_\_\_\_\_  
Director

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

  
Aziz Halim Khair Choudhury  
Chartered Accountants

Place: Dhaka  
Date: 01 November 2020



  
M. J. Abedin & Co.  
Chartered Accountants





## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Statement of Financial Position

As at 30 June 2019

Particulars	2019 BDT	2018 BDT
<b>Assets</b>		
<b>Non-current assets</b>		
Property, plant and equipment	324,219,918	352,225,180
Minor capital project (capital work-in-progress)	3,436,809	3,436,809
Assets held under SPMC project	26,041,845	26,041,845
	<b>353,698,572</b>	<b>381,703,834</b>
<b>Investments</b>		
Investment in Subsidiaries	4,196,580	4,196,580
Investment in FDRs	114,441,495,419	98,982,591,129
Investment in shares	18,482,000	18,482,000
	<b>114,464,173,999</b>	<b>99,005,269,709</b>
<b>Current assets</b>		
Group current account	18,611,642,645	16,351,821,540
Accounts receivable	61,299,177,870	34,189,213,076
Advances, deposits and prepayments	3,927,029,253	1,283,324,615
Loans and advances to employees	393,124,610	363,822,258
Cash and cash equivalents	86,701,493,614	87,003,725,062
	<b>170,932,467,992</b>	<b>139,191,906,551</b>
<b>Total assets</b>	<b>285,750,340,563</b>	<b>238,578,880,094</b>
<b>Equity and liabilities</b>		
<b>Capital and reserves</b>		
Paid-up capital	1,500,000	1,500,000
Capital reserve	1,324,172,884	1,324,172,884
Revenue reserve	57,826,086,360	54,390,979,563
	<b>59,151,759,244</b>	<b>55,716,652,447</b>
Funds and other reserves	<b>126,257,123,732</b>	<b>135,672,240,802</b>
<b>Long-term liabilities</b>		
Other long-term liabilities	118,247,870	109,533,797
Deferred tax liabilities	66,158,304	72,724,420
	<b>184,406,174</b>	<b>182,258,217</b>

**Current liabilities**

Accounts payable	99,166,941,086	46,971,548,030
Provision for Income Tax	953,465,361	-
Deferred income	26,041,845	26,041,845
Accruals and provisions	10,603,120	10,138,753
	<b>100,157,051,413</b>	<b>47,007,728,627</b>
<b>Total equity and liabilities</b>	<b>285,750,340,563</b>	<b>238,578,880,094</b>

**Off Balance Sheet Item (LNG)**

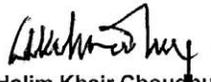
Letter of Credit Contingent liability	<b>6,116,040,610</b>	-
---------------------------------------	----------------------	---

The annexed notes form an integral part of these financial statements

  
\_\_\_\_\_  
Director

  
\_\_\_\_\_  
Director

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

  
Aziz Halim Khair Choudhury  
Chartered Accountants

  
M. J. Abedin & Co.  
Chartered Accountants

Place: Dhaka  
Date: 01 November 2020





## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Statement of Cash Flows For the year ended 30 June 2019

Particulars	2019 BDT	2018 BDT
<b>A. Cash Flows from operating activities</b>		
Operating profit/(loss)	(21,448,608,615)	(20,312,874,352)
Adjustment for non-cash item:		
Depreciation	35,065,607	34,391,287
Changes in working capital:		
Increase/Decrease in Group current account	(2,259,821,105)	(970,323,673)
Increase/Decrease in Accounts receivables	(27,109,964,794)	(1,064,307,531)
Increase/Decrease in Advances, deposits and prepayments	(2,643,704,638)	(782,463,492)
Increase/Decrease in Loans and advances to employees	(29,302,352)	(23,157,029)
Increase/Decrease in Accounts Payable	52,195,393,056	(30,406,550,288)
Increase/Decrease in Accruals and provisions	464,367	8,331,017
Income tax paid	-	(831,007,172)
<b>Net cash used in operating activities (A)</b>	<b>(1,260,478,473)</b>	<b>(54,347,961,233)</b>
<b>B. Cash flows from investing activities</b>		
Acquisition of property, plant and equipment	(7,060,345)	(56,278,061)
Investment in FDR	(15,458,904,290)	(9,203,470,467)
Non-operating income	4,858,516,644	2,959,754,581
<b>Net cash provided by investing activities (B)</b>	<b>(10,607,447,991)</b>	<b>(6,299,993,946)</b>
<b>C. Cash flows from financing activities</b>		
Capital reserves	-	-
Revenue reserves	20,978,664,129	53,863,048,272
Other long-term liabilities	2,147,957	1,885,925
Fund and other reserves	(9,415,117,070)	68,132,685,123
<b>Net cash provided by financing activities (C)</b>	<b>11,565,695,016</b>	<b>121,997,619,320</b>
<b>D. Net changes in cash and cash equivalents (A+B+C)</b>	<b>(302,231,448)</b>	<b>61,349,664,140</b>
<b>E. Opening cash and cash equivalents</b>	<b>87,003,725,062</b>	<b>25,654,060,922</b>
<b>F. Closing cash and cash equivalents</b>	<b>86,701,493,614</b>	<b>87,003,725,062</b>

  
Director

  
Director

Place: Dhaka  
Date: 01 November 2020





annual report 2019

# Publication Committee

**Convener**

**Engr. Md. Kamruzzaman**

Director (Operation and Mines), Petrobangla

**Member**

**Syed Ashfaquzzaman**

Secretary, Petrobangla

**Member**

**Md. Nazrul Islam**

General Manager (Financial Management), 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**

**Md. Javed Ibne Shahed**

Dy. General Manager (Company Affairs), Petrobangla

**Member Secretary**

**Tariqul Islam Khan**

Dy. General Manager (Public Relations), Petrobangla

# PETROBANGLA

