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PETROBANGLA

Bangladesh Oil, Gas and Mineral Corporation



Portrait of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, on the premises of Petrobangla



Bangabandhu Corner on the premises of Petrobangla

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our **Vision**

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

our **Mission**

- To enhance exploration and exploitation of natural gas
- To 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 the 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

Board of Directors (Incumbent)



Zanendra Nath Sarker
Chairman
Petrobangla
Chairman of the Board



Mohammad Saiful Islam
Additional Secretary
Finance Division
Director of the Board



Mohammad Elius Hossain
Joint Secretary
EMRD
Director of the Board



Sadia Sharmin
Joint Secretary
Planning Division
Director of the Board



Md. Altaf Hossain
Director (Administration)
Petrobangla
Director of the Board



Engr. Md. Shaheenur Islam
Director (Production Sharing
Contract)
Petrobangla
Director of the Board



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



Md. Abdul Mannan Patwary
Director (Planning)
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 - 25.11.2021
30	Nazmul Ahsan	06.12.2021 - 15.12.2022
31	Zanendra Nath Sarker	02.01.2023 - 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. During the period of the greatest Bengali of all time, the architect of Bangladesh's independence and Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, the activities of the corporation relating to minerals were segregated and placed under a new organization named Bangladesh Mineral Exploration and Development Corporation (BMEDC), which was formed by President's Order No. 120 of 27 September, 1972. Later, during the period of Father of the Nation, BMOGC was substituted as Bangladesh Oil and Gas Corporation (BOGC) and also short-named "Petrobangla" by Ordinance No. XV of 22 August, 1974. Through Act No. LXX of 28 November, 1974, Oil and Gas Development Corporation (OGDC), established by Ordinance No. XXXVII of 1961, was repealed and all its assets and liabilities were transferred to and vested in the BOGC (Petrobangla). On 13 November, 1976, by promulgation of Ordinance No. LXXXVIII, the import, refining, and marketing of crude oil 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" by the Bangladesh Oil, Gas, and Mineral Corporation Ordinance, 1985 (Ordinance No. XXI of 11 April, 1985).

Finally, the Bangladesh Oil, Gas, and Mineral Corporation Ordinance, 1985 (Ordinance No. XXI of 11 April, 1985) was repealed and brought up to date with necessary amendments and modifications by Act No. 19 of 20 November 2022 and an act named the Bangladesh Oil, Gas, and Mineral Corporation Act, 2022, was enacted in Bengali and the corporation was named Bangladesh Oil, Gas and Mineral Corporation (Petrobangla).



To mark the Independence Day, National day, and 50 years of Petrobangla, a portrait of the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, was unveiled by the Senior Secretary of the Energy and Mineral Resources Division (EMRD) Mr. Md. Mahbub Hossain on the premises of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla).

Functions and Powers of Petrobangla

Petrobangla has been assigned the following functions by the Bangladesh Oil, Gas, and Mineral Corporation Act, 2022:

The functions of the Corporation shall be as follows, namely: -

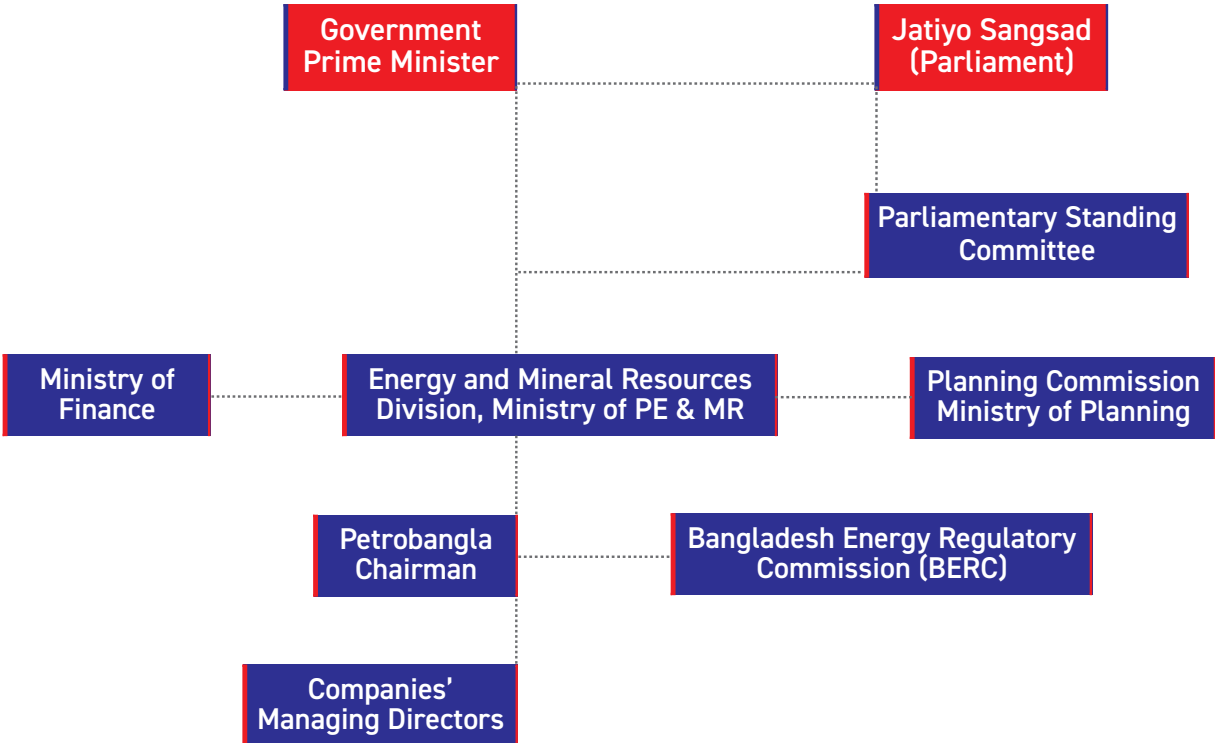
- a. to collect, store and process all types of information in the field of oil, gas and minerals and conduct research;
- b. to undertake projects, prepare work plan, implement, and manage programmes for the exploration and development of mineral oil, natural gas, and mineral resources;
- c. to produce, purchase and sell gas and mineral resources;
- d. to import, marketing, export and management of liquefied natural gas (LNG);
- e. to set up process plants for the production, fractionation, and processing of liquefied petroleum products obtained as gas by-products from domestic sources and to sell them;
- f. to carry out geological, geophysical and other surveys for the exploration and development of oil, gas and mineral resources;
- g. to explore oil, gas and mineral resources through survey, drilling, and undertaking other exploration activities in order to assess their availability, estimate their reserves and collect necessary data through adoption of the most suitable extraction and mining methods for the purpose of extracting the mineral resources;
- h. to establish oil, natural gas and mineral industries and continue the production and sale of the extracted petroleum and mineral products;
- i. to contribute towards the costs of any studies, experiments or technical research connected with the functions of the Corporation and undertaken or done in the interest of the Corporation by any other person, body or agency;
- j. to undertake, assist and encourage the collection, maintenance and publication of statistics, bulletins and monographs relating to the work of the Corporation;
- k. to appoint, transfer and position the chief executive officers of companies under the Corporation;
- l. to transfer or post the Deputy General Managers and officers above that rank of the Corporation and its subsidiary companies to the Corporation and its other subsidiary companies.
- m. to transfer or depute competent officers of the Corporation and its subsidiary companies to the Corporation or other subsidiary companies of the Corporation in case of special circumstances or project or technical reasons;
- n. to supervise, coordinate and control all the activities of the companies under the Corporation;
- o. to enter, with the approval of the Government, into contracts or memorandums of understanding with domestic and foreign companies to fulfill the objectives of this Act;
- p. to perform function relating to oil, gas and mineral resources declared by the Government, from time to time, by notification in the Official Gazette;
- q. to carry out other duties to fulfill the objectives of this Act;

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 also has a 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 an 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 are 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 19th century through some isolated geological mapping. The first serious attempt to find oil and gas was undertaken in Sitakund in 1908 by the Indian Petroleum Prospecting Company, 18 years after the first oil discovery in Digboi, Assam. During 1923-31 Burmah Oil Company (BOC) drilled 2 shallow wells in Patharia. The wells were abandoned though there was a reported show of oil. A total of 6 exploratory wells were drilled, the deepest being 1047 meters. There was, however, no discovery and the Second World War disrupted further activities.

The interim : 1948 to 1971

The promulgation of the 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 the 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 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 the exploration of oil and gas in the country. OGDC carried out geological and geophysical surveys including gravity, magnetic and seismic types and drilled wells in Jaldi and Semutang, discovering gas in Semutang in 1970.

The way forward : 1972 to 1979

After the independence of Bangladesh, exploration activities by both national and international companies gathered pace. Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) continued its exploration efforts while the Bangladesh Petroleum Act was passed in 1974 to facilitate international participation under the 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



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

32,000 km) and drilled 7 wells. Of them, only Union Oil Company discovered an offshore gas field called 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 the British company, Shell Petroleum Company Limited, for a nominal amount of 4.5 million pounds 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 this 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 wells remain the deepest ones 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 surveys 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 the 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 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 the Jalalabad gas fields 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 since 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/TEXACO/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 a seismic survey, including 3D seismic to discover the Bangura gas field.

The Offshore Bidding Round 2008 being limited to newly-formed deep water blocks, attracted a significant number of bids. However, the ensuing maritime boundary dispute in most of the blocks created a stalemate. In this backdrop, a PSC for 2 blocks was signed with ConocoPhillips in 2011. During the FY 2012-13, ConocoPhillips completed the acquisition of 5,860 lkm of 2D seismic survey and interpretation of data identified 4 leads. Among them, one of the leads has an estimated in place gas resource of 2.8 TCF (P50). Despite having good potential for the block, the then fiscal terms and conditions were not in favor of the ConocoPhillips' portfolio for further investment. As a result,

ConocoPhillips relinquished these blocks in 2014 without drilling any exploratory wells.

After the resolution of the maritime boundary dispute with Myanmar by virtue of the judgment awarded on 14 March, 2012 by the 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, 2 shallow water PSCs were signed with the consortium of ONGC Videsh Limited (OVL), Oil India Limited (OIL) and BAPEX for blocks SS-04 and SS-09 and 1 shallow water PSC was signed with the consortium of 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 (currently POSCO INTERNATIONAL Corporation) in March, 2017.

As per the PSC for blocks SS-04 & SS-09, OVL acquired & interpreted 5,080 lkm of 2D seismic data and identified 3 locations for the drilling of 3 exploratory wells. In Block SS-11, Santos acquired and interpreted 3,146 lkm 2D seismic data and identified 7 leads. Santos carried out a 305 km 3D seismic survey over one of the potential leads. Despite a promising post 3D data interpretation outcome, Santos's decision of wrapping up overall activities in the Asia region led them relinquish the entire block SS-11. Accordingly, the PSC has been terminated. In Block DS-12, POSCO acquired and interpreted 3,580 lkm of 2D seismic data identified 5 leads. However, POSCO relinquished the block considering the fiscal terms of the signed PSC not favorable for their further investment.

On the other hand, 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, 2022 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 the Bangora Gas Field operated by Tullow Bangladesh Limited.

Even though the exploration history of oil and gas in Bangladesh goes back almost a century, exploration density could not be enhanced as much as it is required to convert domestic oil and gas resources into proven reserves. However, the exploration success ratio is high, at about 1 in 3 wells. PSC was the major contributor in the country's gas production throughout the year of 2022. As of December, 2022 out of 28 gas fields discovered, 20 were under production. Meanwhile, peak gas production per day crossed the level of 2,700 MMscfd in December, 2016. Despite an 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 imported since August, 2018 and massive exploration programs 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 mineral activity falls under the charter of the Geological Survey of Bangladesh (GSB), subsequent development of economic deposits is undertaken by Petrobangla. Mineral activities were part of the erstwhile Bangladesh Mineral Exploration and Development Corporation (BMEDC) until 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 operations, like limestone, white clay and bouldering, 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 the oil, gas and mineral sectors 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 fuels 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 as a substitute for imported liquid fuels. The extraction of coal and granite is also conducted by Petrobangla. Furthermore, Petrobangla is set to be an 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: During 2022, a 95 line-km geological survey has been completed in Jatinga and Jaldi-Matamohri, Cox's Bazar-Bandarban structure of Sylhet, Chattogram & Bandarban districts. A complete geological map of the structure is being prepared after analyzing the collected data and information. Well proposals for Srikail-5 well, Sundalpur-3 appraisal-cum development well, Begumganj-4 (west) appraisal-cum development well and 1 exploratory well Jamalpur-1 have been prepared after analyzing relevant 2D and 3D seismic data and information as well as the information collected from the previously drilled wells in the surrounding areas. In line with the study, well locations for and Kailastila-8 exploratory and Kailashtila-9 appraisal-cum development wells under SGFL have been confirmed through field surveys. In order to meet the growing demand for gas in the country, explore the presence of gas in the deeper zone of the existing gas field, well proposals have been prepared for Srikail Deep-1 exploratory well and Mubarakpur Deep-1 exploratory well.

Two consultants have been appointed to ensure smooth implementation of the geological and geophysical survey. In order to explore gases from dry, abandoned and suspended wells, 2 EOI have been called from the eligible companies experienced in this regard. A Memorandum of Understanding (MoU) was signed between BAPEX and Gazprom EP International to evaluate Bhola Island fields.

2D Seismic Survey: With a view to identifying locations of exploratory wells under the scope of a project titled '2D Seismic Survey over Exploration Block 15 & 22' financed by the gas development fund (GDF) and its own fund, a total of 3,000 line kilometer of 2D seismic data acquisition (1,000 line kilometer by BAPEX and 2,000 line kilometer by SINOPEC), processing, interpretation, and resource estimation have been underway in 8 districts namely Chattogram, Cumilla, Noakhali, Feni, Khagrachari, Rangamati, Bandarban and Cox's Bazar. The project duration is from July 2021 to June 30, 2024. In the 2022-23 fiscal year, 1106 line kilometer data has been acquired with the expenditure of Tk. 70.75 crore taka. A total of 3000 line kilometer data has already been acquired under the project. Data processing and preliminary data interpretation have been completed.

With a view of identifying locations of exploratory wells under the scope of a project titled '2D Seismic Survey over Exploration Block 6B South & 10' financed by the gas development fund (GDF) and its own fund to conduct a total of 3220 LKM 2D Seismic Survey over several districts of Dhaka, Barishal and Chittagong Division. The estimated cost of the project is 15,195.00 lac taka including 8,496.00 lac foreign currency. Implementing period of the project is 01 July, 2022 to 30 June, 2025. 2D Seismic Survey Data

Acquisition, Processing and Interpretation of 2352 LKM will be done by own crew of BAPEx and 868 LKM in Transition zone will be done by hiring foreign Seismic service crew. In the 2022-2023 fiscal year, a total of 282,775 LKM 2D Seismic Data has been acquired at a cost of 700.00 lac taka. The Project has achieved its 100% RADP target with 20% physical progress of the whole project.

3D Seismic Survey: To ensure long-term energy security of the country, maximum gas production from existing wells and to strengthen gas exploration and production activities from potential undiscovered gas fields a project titled '3D Seismic Survey Over Zakiganj and Patharia West Structure' financed by the gas development fund (GDF) and its own fund, to acquire a total of 580.00 Sq.Km of 3D seismic data in Zakiganj gas field at Zakiganj Upazila of sylhet district and in Patharia west structure at Barlekha & Kulaura upazila of Moulvibazar district. The project duration is from 1st March, 2022 to June 30, 2024. The project has just been approved on 25th April, 2022.



Mud Logging Unit of BAPEx

Drilling

Drilling of the Tabgi-1 well: Drilling of the Tabgi-1 well under the project “Drilling of 2Nos. Exploratory Wells (Tabgi-1 & Illisha-1) and 1No. Appraisal cum Development Well (Bhola North-2)” started on June, 2022 and completed on November, 2022 by GAZPROM. The well was drilled up to 3,524 meters. Perform DST & testing activities from this well there is a possible to 19.5-20.0 MMscfd of gas are supply to the national grid.

Drilling of the Bhola North-2 well: Drilling of the Bhola North-2 well under the project “Drilling of 2Nos. Exploratory Wells (Tabgi-1 & Illisha-1) and 1No. Appraisal cum Development Well (Bhola North-2)” started on December, 2022 and completed up to 3,006 meters within December by GAZPROM.

Shariatpur-1 Exploratory Well Drilling Project: The project has been undertaken with a view to drilling 1 exploratory well in Naria Upazila of Shariatpur. The project has already been approved by the Energy and Mineral Resources Division. Drilling started on November 2022 and will be completed on March, 2023 with Bijoy-10 rig. The estimated cost of the project is Tk. 959.00 million and the tenure is from 1 July, 2021 to June, 2023.

Srikail North-1A Exploratory Well Drilling Project: The project has been undertaken with a view one exploratory (Srikail North-1A) and two appraisal cum development (sundulpur-3 & begumgonj-4, west) drilling well. Drilling started June, 2022 & completed on January, 2023 at Muradnagar Upazila of Comilla district with Bijoy-12 rig. The project has already been approved by the Energy and Mineral Resources Division. The estimated cost of the project is Tk. 2,841.90 million and the tenure is from 1 March, 2022 to June, 2024.

Workover

Kailastila-7: The workover activities started on February, 2022 with BAPEX's (Bijoy-11) rig and manpower without foreign consultants and the workover was successfully completed on May, 2022. . About 10 MMscfd of gas is being supplied to the national grid from this well at initial stage.

Bianibazar-1: The workover activities started on September, 2022 with BAPEX's (Bijoy-11) rig and manpower without foreign consultants and the workover was successfully completed on November, 2022. At present, about 10 MMscfd of gas is being supplied to the national grid from this well.

Semutang-5: The workover activities started on March, 2022 with BAPEX's (XJ650T) rig and manpower without foreign consultants and the workover was successfully completed on July, 2022.

Saldanodi-2: The workover activities started on January, 2022 with BAPEX's (ZJ50DBS) rig and manpower which ended successfully on March, 2022. At present, about 03 MMscfd of gas is being supplied to the national grid from this well.

Fenchuganj-3: After successfully completed the workover activities with BAPEX's (Bijoy-10) rig on March, 2022 rig down & rig dismantling job done. At present, about 9 MMscfd gas is being supplied to the national grid from this well.

Sylhet-8: The workover activities started on 31 October, 2021 with BAPEX's (XJ650T) rig and manpower under Sylhet Gas Fields Limited (SGFL) was completed on 5 January, 2022. At initial stage about 5 MMscfd of gas is being supplied to the national grid from this well.

Production

In the FY 2021-22, a total of 840 BCF of 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 30.8% of total gas produced during the FY. BAPEX was assigned with production activities in 2000. It produced 50.01 BCF of gas in FY 2021-22. Total production of these 3 national companies stood 308.23 BCF, which was 36.7% of total gas production during the FY. The remaining 531.66 BCF of gas was produced by IOCs (Chevron and Tullow), which was 63.3% of total gas production.

Compared to the previous year, BAPEX produced 40.4% higher, whereas Chevron, Tullow, SGFL and BGFCL produced 7%, 36.1%, 8.7% and 4.5% lower amounts of gas respectively in FY 2021-22. The total production in FY 2021-22 stood at 840 BCF, averaging about 2,301 MMscfd. Out of this, BGFCL produced 225.86 BCF, SGFL produced 32.37 BCF, Bapex produced 50.01 BCF, Chevron produced 511.41 BCF and Tullow produced 20.26 BCF. The major gas producing fields of the companies under Petrobangla are: Titas Gas Field contributed 171%, Habiganj 6.8%, Shahbajpur 2.7% and Rashidpur 1.9%, whereas major producing fields under IOCs are: Bibiyana contributing 52%, Jalalabad 8.2% and Bangura 2.4%.

At the end of December 2022, 20 gas fields were in production with 107 flowing wells. Out of these fields, 5 were operated by BGFCL, 4 by SGFL, 7 by BAPEX, 3 by Chevron and 1 by Tullow.

In addition to the indigenous gas, 240.49 BCF of imported RLNG was fed into the national gas grid in the FY 2021-22.

During the period from July to December, 2022, Chevron and Tullow produced 250.51 BCF and 8.61 BCF gas respectively, while local companies produced 154.714 BCF gas, making a total of 413.831 BCF. In the same period, 84.952 BCF of imported RLNG was fed into 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. Currently GTCL operates the following gas transmission pipelines:

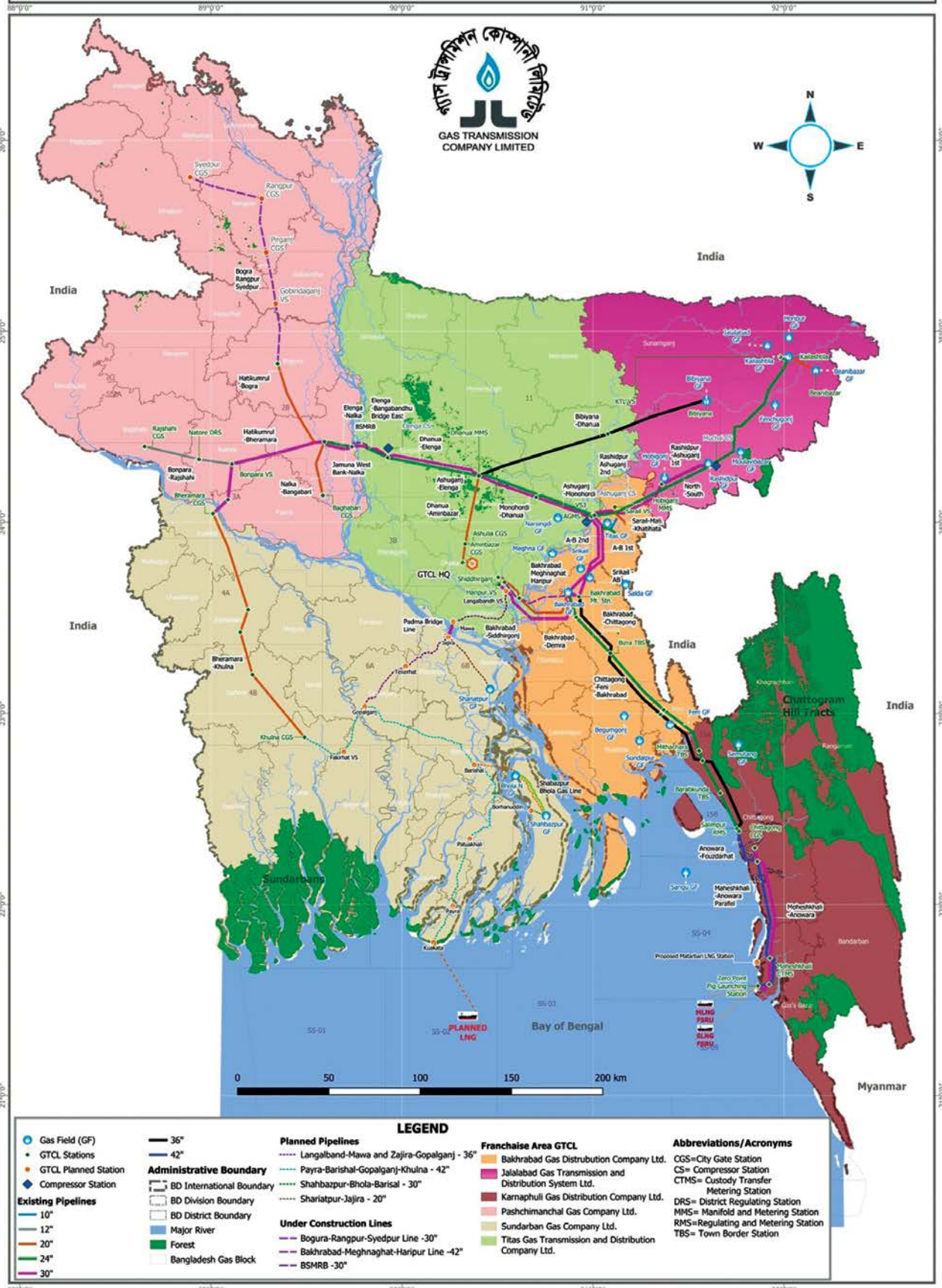
(1) Bakhrabad-Demra 20" x 68.72 km gas transmission pipeline; (2) Bakhrabad-Chattogram 24" x 174.65 km gas transmission pipeline; (3) North-south 24" x 175 km gas transmission pipeline; (4) Ashuganj-Bakhrabad (AB) 30" x 58.50 km gas transmission pipeline (1st phase); (5) Paschimanchal gas transmission projects - (a) 30" x 9 km Bangabandhu (B-B) Bridge, (b) 24" x 28.50 km Elenga-Nalka and (c) 20" x 35.5 km Nalka-Baghabari gas transmission pipeline; (6) Beanibazar-Kailashtila 20" x 18 km gas transmission pipeline; (7) Rashidpur- Habiganj 30" x 28 km gas transmission pipeline (2nd Phase); (8) Habiganj-Ashuganj 30" x 54 km gas transmission pipeline (1st Phase); (9) Ashuganj-Elenga 24" x 124 km gas transmission pipeline; (10) Ashuganj-VS3 20" x 2 km gas transmission pipeline; (11) Nalka-Bogura gas transmission pipeline - (a) 30" x 6 km Nalka-Hatikumrul and (b) 20" x 54 km Hatikumrul-Bogura gas transmission pipeline; (12) Ashuganj-Monohordi 30" x 37 km gas transmission pipeline; (13) Dhaka Clean Fuel 20" x 60 km gas transmission pipeline; (14) Monohordi-Dhanua and Elenga-Bangabandhu Bridge East 30" x 51 km gas transmission pipeline; (15) Titas Gas Field (Location-G)- AB pipeline 24" x 8 km gas transmission pipeline; (16) Srikail Gas Field (Location-2)-AB pipeline 20" x 1.5 km gas transmission pipeline; (17) Bonpara-Rajshahi 12" x 53 km gas transmission pipeline; (18) Bibiyana-Dhanua 36" x 137 km gas transmission pipeline; (19) Titas Gas Field (Location- C, B and A) to Titas A-B 10" x 7.7 km gas transmission pipeline; (20) Bheramara-Khulna 20" x 163.03 km gas transmission pipeline; (21) Hatikumrul-Bheramara 30" x 84 km gas transmission pipeline; (22) Titas Gas Field Well No. 23, 24 (Sorail) to Khatiahata and Well No. 25, 26 (Malihata) to Khatiahata 20" x 3.30 km gas transmission pipeline; (23) Gas transmission capacity expansion - Ashuganj-Bakhrabad 30" x 61 km gas transmission pipeline; (24) Moheshkhali-Anowara 30" x 91 km gas transmission pipeline; (25) Bakhrabad-Siddhirgonj 30" x 60 km gas transmission pipeline; (26) Anowara-Fouzdarhat 42" x 30 km gas transmission pipeline; (27) Dhanua-Elenga-Bangabandhu Bridge-Nalka 30" x 67 km gas transmission pipeline; (28) Moheshkhali (Zero Point)-Moheshkhali CTMS 42" x 7 km gas transmission pipeline; (29) Moheshkhali CTMS-Anowara 42" x 79 km parallel gas transmission pipeline and (30) Chattogram-Feni-Bakhrabad 36" x 181 km gas transmission pipeline.

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

Running projects are:

- (i) 30" X 150 km Bogura-Rangpur-Syedpur Gas Transmission Pipeline Project;
- (ii) 42" X 50 km Bakhrabad-Meghnaghat-Haripur Gas Transmission Pipeline Project;
- (iii) Installation of Gas Stations on Off-Transmission Points and Modification; &
- (iv) 36" X 10 km Gas Transmission Pipeline on Bangabandhu Sheikh Mujib Railway Bridge.

GTCL SCHEMATIC GAS TRANSMISSION PIPELINE NETWORK MAP



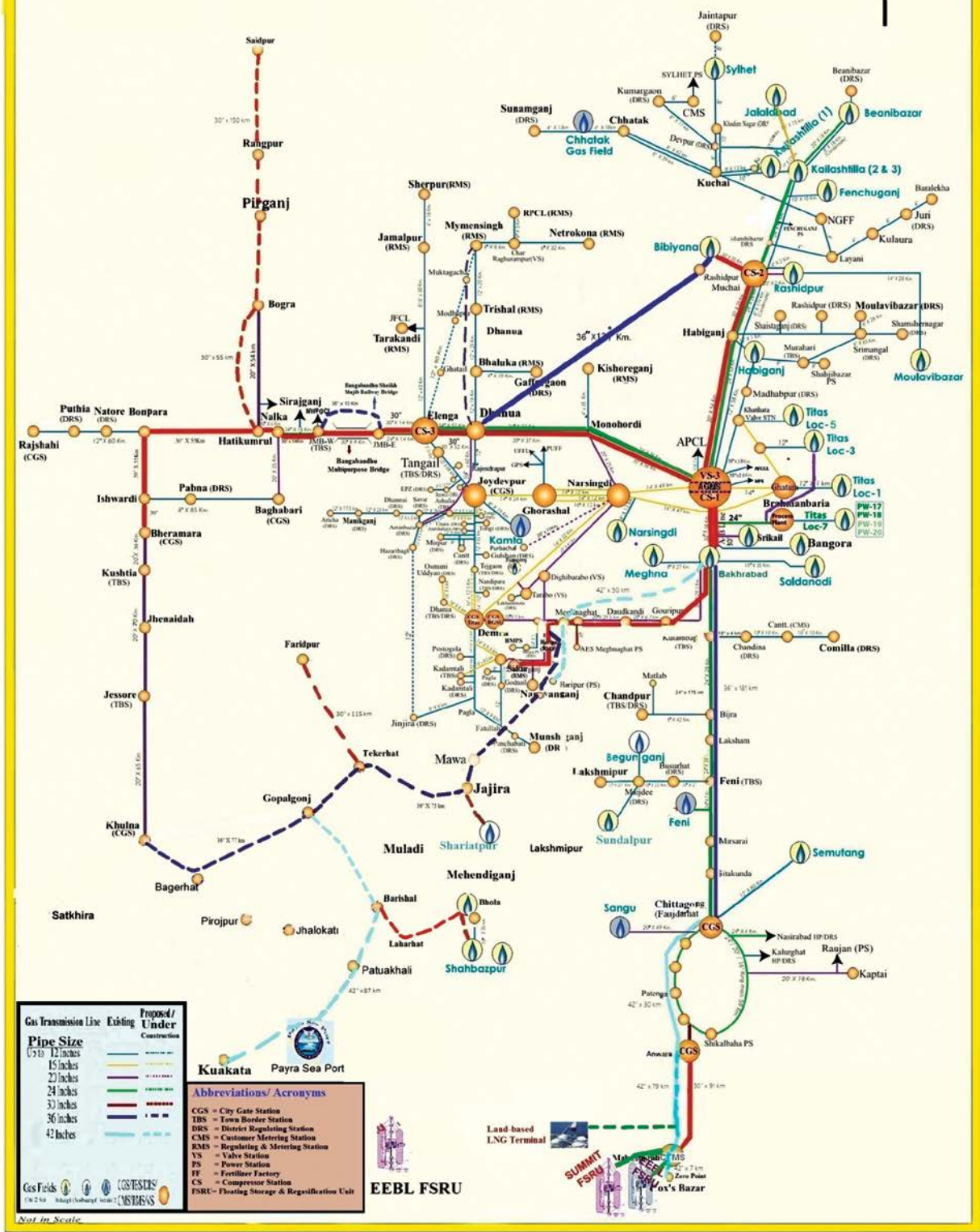
LEGEND			
Gas Field (GF)	36"	Planned Pipelines	Franchise Area GTCL
GTCL Stations	42"	Lalaband-Mawa and Zajira-Gopalganj - 36"	Bakhrabad Gas Distribution Company Ltd.
Compressor Station	Administrative Boundary	Payra-Barishal-Gopalganj-Khulna - 42"	Jalalabad Gas Transmission and Distribution System Ltd.
Existing Pipelines	BD International Boundary	Shahbazpur-Bhola-Barisal - 30"	Karnaphuli Gas Distribution Company Ltd.
10"	BD District Boundary	Shariatpur-Jajira - 20"	Pashchimanchal Gas Company Ltd.
12"	Major River	Under Construction Lines	Sundarban Gas Company Ltd.
20"	Forest	Bogura-Rangpur-Syedpur Line -30"	Titas Gas Transmission and Distribution Company Ltd.
24"	Bangladesh Gas Block	Bakhrabad-Meghnaghat-Haripur Line -42"	
30"		BSMRB -30"	
			Abbreviations/Acronyms
			CGS=City Gate Station
			CS= Compressor Station
			CTMS= Custody Transfer Metering Station
			DRS= District Regulating Station
			MMS= Manifold and Metering Station
			RMS=Regulating and Metering Station
			TBS= Town Border Station



Gas Transmission Company Limited

(A Company of Petrobangla)

Gas Transmission Network Flow Diagram



Pipelines

The gas pipeline network continued to expand both in transmission and distribution. In total about 193.96 km of pipelines of various sizes and grades were completed during the FY 2021-22 ; these included 97.20 km of transmission pipelines, 19.26 km distribution lines, 0.00 km lateral lines, 29.59 km feeder main and service lines and 47.91 km of other (customer financed) pipelines. As of June, 2022 the gas pipeline network encompassed about 24,909.47 km comprising about 3,315.74 km of transmission lines, 2,408.96 km distribution lines, 216.89 km lateral lines, 17,039.65 km feeder main and service lines and the rest 1,928.23 km of other (customer financed) lines.

As of December, 2022 the pipeline network had increased of about 24,924.38 km, which included about 3,317.47 km transmission lines, 2,409.23 km distribution lines, 216.89 km lateral lines, 17,041.74 km feeder main and service lines and the rest 1,939.05 km of pipelines were constructed under customer financing.

Gas transmission pipeline network of GTCL continued to expand. As in December, 2022 the Transmission pipeline network increased to about 2017 km.

Distribution

Six marketing or distribution companies under Petrobangla are entrusted with the responsibility of marketing of natural gas to customers ranging 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) Pashchimanchal 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 the FY 2021-22 was about 1,001.3 BCF, of which TGTDC, being the largest, shared about 55%, followed by BGDCL at 10%, KGDCL is 11%, JGTDSL is 15%, PGCL is 5% and SGCL is 4%. The gas sector catered to 4.320789 million customers under various categories as in June, 2022 which increased to 4.321304 million at the end of December, 2022. Most of these customers are in the domestic category.

Condensate and NGL and LPG

Some of the gas fields located in the north-eastern part of Bangladesh contain high concentrations of liquid hydrocarbons or condensate. This condensate has been processed in refineries and turned into petrol, diesel and kerosene since the beginning. In FY 2021-22, a total of 25,62,721 barrels of condensate has been produced as gas byproducts from the gas fields operating under national gas production companies and production sharing contracts (PSCs). From this condensate, 3,057 barrels of condensate have been sold directly to Bangladesh Petroleum Corporation and private companies. The rest of the condensate and the whole amount of NGL produced are processed in plants owned by companies operating under Petrobangla and in this way 13,71,167 barrels of petrol, 1,26,022 barrels of diesel, 1,30,548 barrels of kerosene and 774.1 metric tons of liquefied petroleum gas (LPG) have been produced in FY 2021-22. These products are sold to various companies operating under the Bangladesh Petroleum Corporation. In 2018, a fractionation plant of 4,000 barrel capacity was established in Rashidpur by SGFL to process the condensate produced. Moreover, in 2021 a catalytic reforming unit (CRU) with 3,000 barrels of capacity has been established by SGFL.

CNG

Rupantarita Prakritik Gas Company Limited (RPGCL), a company under Petrobangla, has been entrusted with the functions to manage, supervise and coordinate the use of compressed natural gas (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. A total of 603 CNG refueling stations were operated across the country till December, 2022 and on an average about 0.506 million vehicles were refueled with CNG from these stations every day. On average 3.34 BCF of CNG is used every month, which is about 4.15% of the total gas consumption in the country.

LNG

In order to ensure energy security of the country Bangladesh Government has planned to import LNG in line with the existing and increasing gas demand in the country. Under the supervision of Petrobangla, RPGCL is accomplishing all necessary functions regarding LNG infrastructure development, LNG import and RLNG supply to national gas grid.

Two terminal use agreements (TUAs) 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, commissioning started on 12 August, 2018 and RLNG supply to the national gas grid commenced commercially on 19 August, 2018. Total LNG imports from this terminal were 10.01 million tons and the total RLNG supply to the national gas grid was 482,446 million cubic feet from inception to 31 December, 2022. After the set-up of the 2nd FSRU by Summit, commissioning took place on 29 April, 2019 and RLNG supply to the national grid commenced commercially on 30 April, 2019. Total LNG import from this terminal was 7.87 million tons and the total RLNG supply to the national grid was 378,208 million cubic feet from inception to 31 December, 2022.

In addition, the selection of a Terminal Developer to install a Land-Based LNG Terminal with a capacity of 1,000 MMscfd at Matarbari, Cox's Bazar has been undertaken. A request for proposal (RFP) has been issued to 8 shortlisted bidders. The last date for submission of RFP was extended to 10/08/2023. A committee consisting of 8 members has been constituted for the purpose of selecting a suitable place from Coal Power Generation Company Bangladesh Limited for the establishment of Land based LNG Terminal. Beside this, a gas supply agreement (GSA) between H-Energy and Petrobangla is in process to import RLNG through a cross-border pipeline.

The proposal from Summit Oil and Shipping Co. Ltd. (SOSCL) to set up an FSRU at Moheshkhali has been approved in principle by the Government. Negotiations with SOSCL are in progress to finalize the draft agreements (TUA and IA). The proposal from Excelerate Energy to set up an FSRU at the Payra deep sea area has been approved in principle by the Government. Again, a proposal from Excelerate Energy to expand the existing FSRU (MLNG) to increase its regasification capacity has also been approved in principle by the Government. Negotiations with Excelerate Energy are in progress.

To import LNG from Qatargas, a sale and purchase agreement (SPA) was signed on 25 September, 2017 with Ras Laffan Liquefied Natural Gas Company Limited (3), a Qatar-based Government agency, to ensure the supply of 1.8 - 2.5 MTPA LNG for 15 years. A total volume of 10.64 million tons of LNG was imported from Qatar through 176 cargoes from inception to 31 December, 2022. Another SPA was signed with Oman Trading International Ltd. (present name: OQT), an Oman-based Government agency, on 6 May, 2018 for supplying 1.0-1.5 MTPA LNG for 10 years. A total volume of 5.42 million tons of LNG was imported from OQT through 86 cargoes from inception to 31 December, 2022.

In addition, a master sale and purchase agreement (MSPA) was signed with 21 organizations (suppliers/traders) to purchase LNG from the spot market. The first cargo from the spot market was imported on 25 September, 2020. A total volume of 1.83 million tons of LNG was imported from the spot market through 29 cargoes from inception to 31 December, 2022.

In order to reduce the gap between demand and supply of gas, the Government has planned to increase LNG import. Accordingly, a proposal from SOSCL to supply LNG as long term basis has been approved in principle by the Government. Negotiations are in progress. On the other hand, negotiations with the Emirates National Oil Company Limited (ENOC), Qatar Energy and OQT on a G to G basis for long term contracts are in progress. In addition, an LNG supply contract on a long-term basis with EEBL along with the expansion of MLNG is also in progress.

Mining

Petrobangla is also entrusted with developing 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 mostly used 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 projects have been undertaken to develop more mines 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 energy source of Bangladesh which accounts 49.5% of the total electricity generation. Several study reveals that domestic production of natural gas will be depleting soon in the near future. Take into account the uncertainty of sustainable supply of primary energy it is imperative to diversify the primary energy sources in the country. In that case therefore, Coal can be a major alternative energy source for the country.

Five coal fields have been discovered so far 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 five coal fields is 7,823 million metric tons.

Out of these five coal fields Petrobangla has developed the first and only coal mine of the country at Barapukuria. Commercial coal production started from September 2005 with a capacity of 1 million metric ton per annum and currently the production rate is 2500-3000 metric tons per day. Till December 2022, total 13.47 million metric tons of Coal has been produced from the commencement of commercial production. About 0.71 million metric tons of coal has been produced in the year 2022 from Barapukuria mine. Presently entire amount of produced coal are being supplied to Barapukuria 525 MW coal fired thermal power plant. A contract has been signed between BCMCL and XMC-CMC consortium in 30 December 2021 to extract 4.5 million metric tons of coal within a period of next 6 years.

According to Revisiting Power System Master Plan (PSMP) 2016, the demand of Coal by 2030 would be 58 million metric tons/year approximately. In September, 2018 a feasibility study project has been completed for North-South extension of the existing Barapukuria mine to increase the current production. The Study suggests that about 3.2 million metric tons of coal from northern part and about 6.9 million metric tons of coal from southern part can be extracted. Under the present contract with XMC-CMC consortium, underground roadway construction is going on for extraction of coal from

northern extension of the basin and expected to launch production from 2024. In addition, another feasibility study project for an open pit mine in the northern and southern part of Barapukuria coal mine has submitted for approval of EMRD.

For development of Dighipara Coal field, Petrobangla conducted a 1st stage feasibility study which proves the prospect of this coal field and coal reserve has been estimated as 865 Million Metric Tons. In 2nd Stage, a project named “Techno-Economic Feasibility Study (TEFS) of Coal Deposit at Dighipara, Dinajpur” has completed to develop an underground coal mine at Dighipara with a target production of 3 million tons/year. From this study report it reveals that total geological reserve of Dighipara Coal basin is 706 million metric tons among which 90 million metric tons is extractable by underground mining. TEFS has been reviewed by DMT consulting Ltd., UK. where DMT consulting Ltd. UK has made some observation on underground mine design, shaft construction, coal process plant, river diversion, water damp construction, transportation system etc. Finally DMT has opined economic viability of Dighipara underground mine development. According to the recommendations of the review report, a policy decision of the government has been sought regarding the construction of Dighipara coal mine.

During the year 2015-2016, a feasibility study project for extraction of CBM (Coal Bed Methane) from Jamalganj coal field was carried out by Petrobangla. This study bring out that CBM production is not economically viable due to extreme gas under-saturation. The consulting firm of this project informed that 5.45 billion metric tons of coal resources are present over an area of 64 sq km in Jamalganj coal basin. The consulting firm recommended detailed coal exploration especially in the demarcated 15 sq km area where the upper coal seams occur in 600-800 m depth. Petrobangla has a plan to conduct further comprehensive feasibility study with a view to develop an underground mine in the north western comparatively shallower area of Jamalganj coal field. In continuation of this, considering the issue of high investment a pre-feasibility study project has been undertaken in north-western part of Jamalganj coal field through BCMCL.

To meet up the present and upcoming energy demand, it is required to increase the coal production by conducting feasibility studies on other coal fields, for ex. 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/production of indigenous coal resources need to be exaggerate on a priority basis.

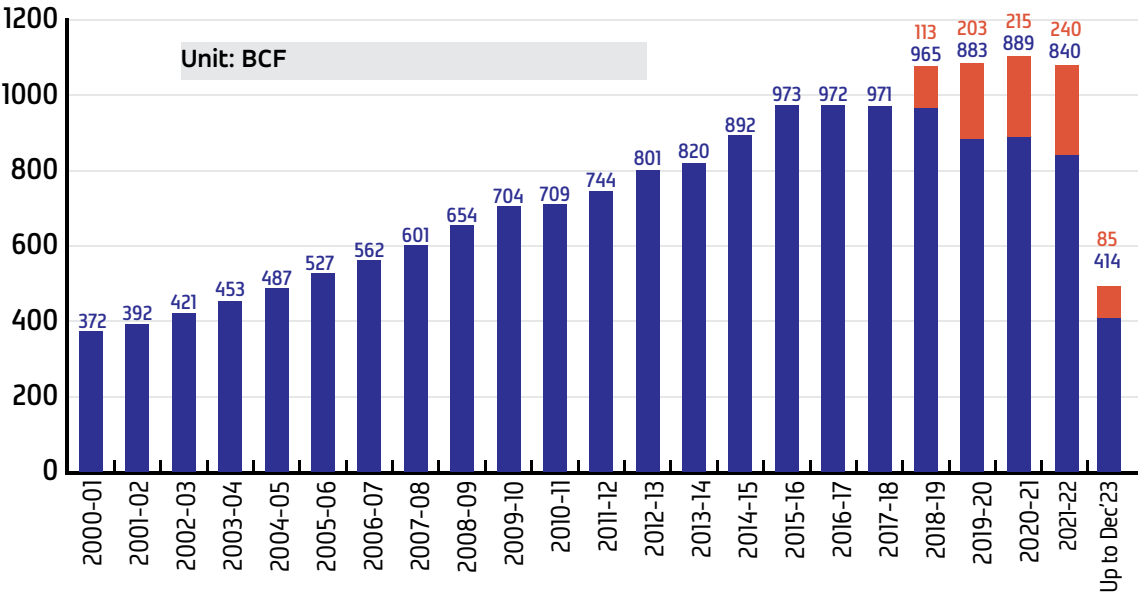


Crushing Plant of MGMCL

Granite

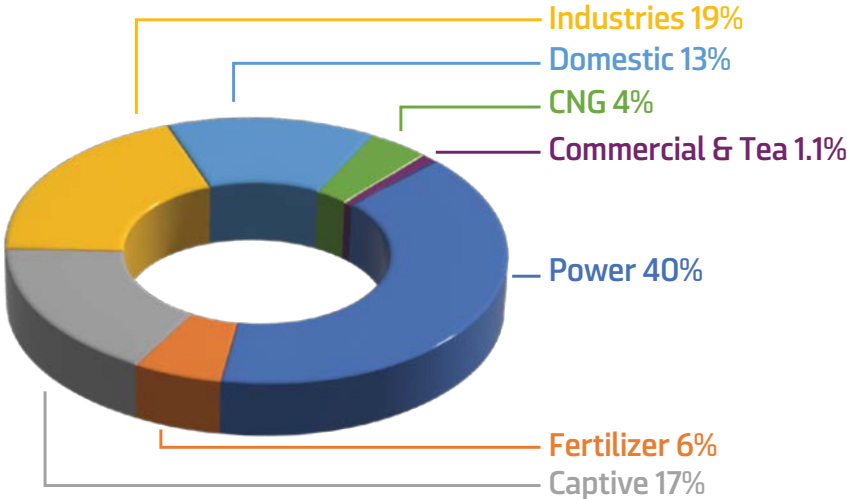
Maddhapara Granite Mining Company Limited (MGMCL) at Dinajpur, the only underground mining company of this kind in the world, has been extracting granite which is used mostly as construction material. As on December 2022, a total of 740749.01 metric tons of granite was extracted from the mine and 557857.00 metric tons was sold.

Gas Production in Bangladesh



Marketing

By the end of 2021-22 financial year, total sales was 1,001.31 BCF, of which power sector (Grid + Non-Grid) consumed the largest part amounting to 402.0 BCF followed by fertilizer sector 60.4 BCF, captive power 175.7 BCF, industry 191.0 BCF, domestic sector 127.8 BCF, and other non-bulk sectors 44.4 BCF. As of December, 2022 the gas sector catered to about 4.321304 million customers of various categories. Most of these customers fall under the domestic category; however, the power sector remained the largest customer.



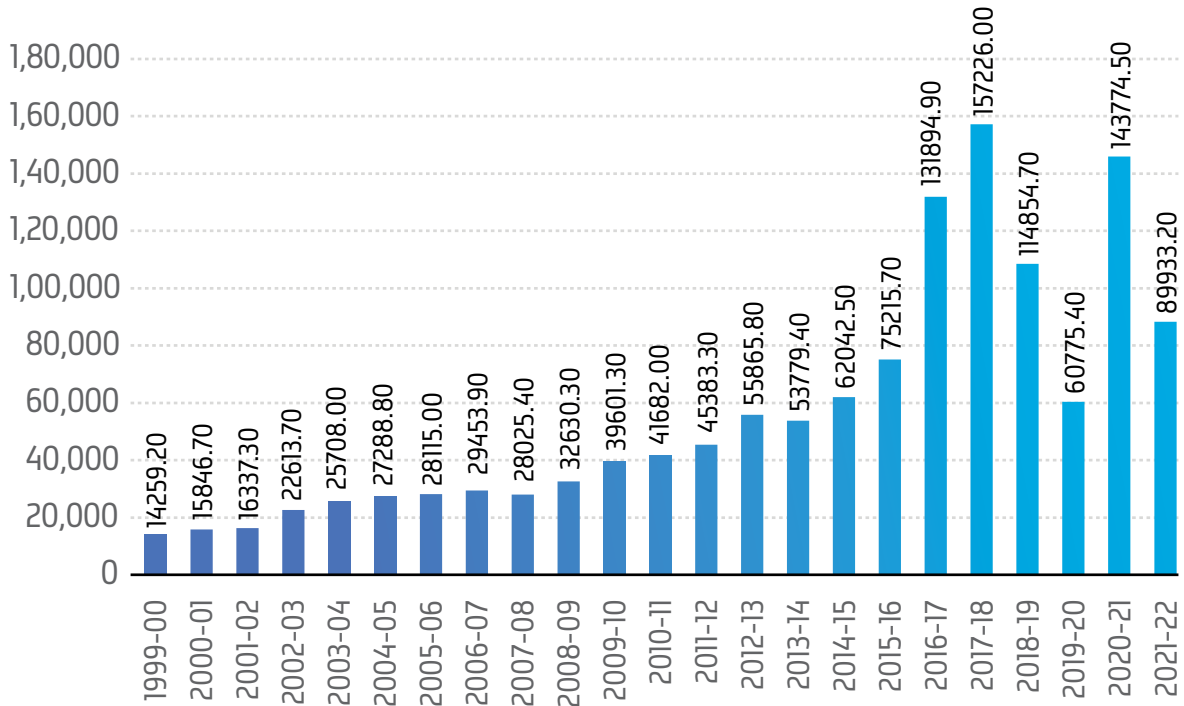
Total Sales: 1,001.31 BCF

Financial

The gross income in 2021-22 by Petrobangla Group from Sales is Tk. 580077.05 million. After paying SD & VAT net income was Tk. 526104.07 million. Gross expenses comprising of Tk. 53972.98 million as SD & VAT along with Tk. 750481.64 million as cost of sales, amounted to Tk. 804454.62 million. After paying income tax, net profit/(loss) is Tk. (167857.77) million. After paying dividend of Tk. 11092.10 million, net profit/(Loss) is Tk. (178949.87) million.

Payment to National Exchequer

Taka in Million



Petrobangla observed Sheikh Russel Day, 2022, and the 59th birthday of Shaheed Sheikh Russel, the youngest son of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman.

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 mills and other industrial establishments that use boilers through consulting services.

Findings of the pilot programmes : (i) Boiler Economizer Pilot Programme (to fit an economizer to the 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 preheat the combustion air) : gas consumption has been reduced by 9.10%. Excess air has been controlled by installing a butterfly damper at the chimney. Excess air as well as oxygen are 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 the Power Division to improve industrial boiler efficiency, captive power generator and industrial furnace as well as ensure energy conservation and the master plan was prepared by the Power Division during the month of May, 2016.

Furthermore, Petrobangla has set up a standard for gas utilization efficiency for industrial plants using appliances i.e. boiler, captive power generator and industrial furnace and 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

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

Annual Performance Agreement



APA was signed between Petrobangla and its companies on 22 June, 2022.

The Government of Bangladesh has launched a government performance management system (GPMS) for the qualitative and quantitative evaluation of the performance made by public sector organizations. Under this system, a mechanism of annual performance agreement (APA) had been introduced from the FY 2014-15. APA between Energy & Mineral Resources Division (EMRD) and Petrobangla and individually between Petrobangla and its companies are being signed before the start of every FY. Regarding the APA in the FY 2021-22, Petrobangla has achieved a score of 94.96 out of 100, which was 96.7 in the previous year. In the FY 2022-23, APA was signed between EMRD and Petrobangla on 30 June, 2022 while between Petrobangla and its companies on 22 June, 2022. Reports of achievement regarding APA are being sent to EMRD on a monthly, quarterly, half-yearly and annual basis.



Certificate-giving ceremony for the APA performance.

Innovation Programme

Innovation is a key driver of Bangladesh's goal of becoming a developed country by 2041 and in achieving the sustainable development goals (SDGs) by the year 2030. Petrobangla has taken some innovative action plans to accelerate the speed of work, ensure better services, accountability, transparency and easy access to its stakeholders. These are (a) Providing a digital card (Bill card) for customers instead of Bill Book by BGDCL, (b) SMS notification to the customer on gas bill and other related information by PGCL, (c) Digitalizing the map of the existing gas transmission and distribution pipeline of SGCL, (d) Implementing RFID sticker system and maintaining an online database to recognize and check the CNG vehicles in RPGCL CNG station by RPGCL, (e) Implementation of a smart delivery system for granite from the stock yard to the customer by MGMCL, (f) Developing a web based system of daily gas production and marketing by BAPEX and BGFCL. Petrobangla encourages its employees, stakeholders and visitors to participate in developing innovative ideas for better services.

Right to Information

To make provisions for ensuring transparency and accountability in all public, autonomous and statutory organizations and in other private institutions constituted or run by government or foreign financing, the Parliament of the People's Republic of Bangladesh passed the 'Right to Information Act, 2009 on 27 March, 2009. To ensure the effective implementation of the Act, the Government has already formulated rules and regulations regarding the preservation of information, publication of information, disclosure of information and access to information. According to the Right to Information (RTI) Act, Petrobangla has specifically designated an officer. Besides, Petrobangla has taken initiatives to make its employees well acquainted with the provisions of the Act, Rules and Regulations.

National Integrity Strategy

As per the Government's decision, a time bound action plan on the national integrity strategy at corporation level is being implemented since 2024. In light of the Government's direction, a committee has been formed to implement the national integrity strategy action plan within the corporation. An official has been deployed in order to implement the national integrity strategy of Petrobangla. According to the guidelines of the Cabinet Division of Bangladesh Government, Petrobangla has prepared a time bound action plan on national integrity strategy for FY 2022-23. The 1st quarter report of the national integrity strategy action plan was sent to EMRD on October, 2022 as per schedule. The major portion of the time bound action plan works has already been implemented within the stipulated time and hope that this national integrity strategy will play a pivotal role in building a prosperous Bangladesh- the dream of our nations father 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 needs 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 the gas industry, introduction of private ventures as sole or joint collaboration, taxation regime, tariff mechanism and overall reinvigoration of the sector, regular and frequent participation are ensured by the widest possible selection of personnel in various training, workshops and seminars.

During the 2022 (upto December 2022), Petrobangla group arranged foreign programmes of different durations and disciplines for 210 personnel, while 145 participants were sent for attending training, 30 for seminars, 25 for attending different inspections and 10 for meeting. During the same period, local programmes were imparted to 981 personnel, while 830 participated in training and 151 in different workshops held in the country.

Information Technology

Smart Bangladesh is one of the nation's dreams, and so special emphasis has given on the application of information technologies. In order to become a smart organization as well as a part of smart Bangladesh Petrobangla and its 13 companies are working simultaneously. To achieve the goals of smart Bangladesh Petrobangla is trying to perform the direction of government policy along with relevant activities. Also to hold the vision 2021 achievement, which we commonly call Digital Bangladesh Petrobangla already aligned government e-Nothi system and e-Government Procurement (e-GP) system. Most of the official meetings or trainings have been arranged by various kinds of video-conferencing platform for direct live communication to save time & labor. To facilitate uninterpreted internet access redundant bandwidth has been ensured with auto failover. Ensuring internet availability to everyone in headoffice at any part Petrobangla has wi-fi connectivity. Petrobangla regularly maintains an updated website which is both in English and Bangla to reach all about the activity we are working. Petrobangla also maintains a mail server to ensure authentic, rapid and digital communication. Besides this, Petrobangla and its companies are trying to initiate some e-services to ensure smooth, fast and better services to its stakeholders. Petrobangla has already taken the initiative to implement enterprise resource planning (ERP) with its 13 companies.

Grievance Redress System

Grievance redress system (GRS) provides a way to reduce risk for the public service delivery, an effective avenue for expressing concerns, achieving remedies for the public and promoting 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, the Energy & Mineral Resources Division and Petrobangla have signed an annual performance agreement (APA), which includes a grievance redress system. An officer has been appointed as the focal point for the implementation of the grievance redress system in Petrobangla. Activities of Petrobangla and its companies under GRS are being regularly monitored and evaluated.



On behalf of Petrobangla, a floral wreath was placed at the portrait of the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, marking the 47th anniversary of his martyrdom and the National Mourning Day in the capital's Dhanmondi-32 on August 15, 2022.

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 petroleum operations. One of Petrobangla's major activities consists of organizing, supervising and administering the Production Sharing Contracts (PSC) it signs 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. Three deep offshore blocks were offered under "Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010" in 2017.

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 and discovered the Kutubdia Gas Field in 1977 and all winded 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 Chattogram Hill Tracts (later Block 22) and North West Bangladesh (later block 23). Shell conducted seismic surveys, drilled 2 wells at Sitapahar and Salbanhat without any success, and relinquished their concessions. One PSC was concluded with Scimitar Exploration of Canada for the 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 produces from Bibiyana, Jalalabad and Moulvibazar fields.

Cairn Energy for blocks 15 (Onshore) and 16 (Offshore): Cairn discovered the Sangu gas field in 1996, which was produced until 2013. Blocks 15 and 16 were 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 was relinquished by Santos in 2017.

Oakland-Rexwood for blocks 17 and 18 (Offshore): Transferred to TOTAL, who relinquished both the blocks in 2010.

United Meridian Corporation (UMC) for block 22 (Onshore): Relinquished the block in 2004.

1997 Bidding Round

4 blocks were awarded as follows:

Tullow/Chevron/Texaco/BAPEX for block 9 (Onshore); Discovered Bangora Gas Field in 2004 which is now produced and 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 a total of 5,750 lkm of 2D seismic survey in 2012 and 2013. After interpretation, ConocoPhillips identified a 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 boundary and announced a bidding round in December, 2012.

Shallow Water Bids:

Under this round, the following 3 shallow water PSCs were 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.

Deep Water Bids:

Three proposals were received for blocks DS-12, 16 and 21 Jointly from ConocoPhillips and Statoil. However, no PSC was signed for any deep sea block under this bidding round.

2017 Offshore Bidding under “Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010”:

Following the delimitation of the maritime boundary between Bangladesh and India by Permanent Court of Arbitration (PCA) in July, 2014, Petrobangla divided the whole undisputed offshore area of Bangladesh into 26 blocks out of which 11 are shallow sea blocks and 15 are deep sea blocks. In 2017 three deep sea blocks namely DS-12, DS-16 and DS-21 were offered again to the IOCs under the “Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010”. One PSC was signed for block DS-12 with POSCO-Daewoo.

Operating Fields under PSC during 2022

Currently, 4 gas fields are being operated by IOCs under the PSC. Of these 3 fields, namely Bibiyana, Jalalabad and Moulvibazar gas fields are being operated by Chevron and Bangora gas field by Tullow Bangladesh Limited.

Bibiyana: Bibiyana field is now the largest gas producer delivering around 1,140 MMscfd of gas to the national grid from total 26 producing wells. After installing the Turbo-Expander unit in December 2022 condensate production is increased to 6,500 bbl/day from 4,500 bbl/day. To maintain the current production plateau, a few work programs and activities such as thin bed analysis, infill drilling, process plant optimization, tubing change program and flank development projects are being planned. Under the tubing change program tubing size of 08 wells of this field are increased from 05 inches to 07 inches in 2021. Under flank development projects, one new development well is being planned to drill in 2022-23.

Jalalabad: Currently, the Jalalabad gas field is producing around 165 MMscfd of gas and 825 bbl/day of condensate from 06 wells. Under the production sharing contract (PSC) production period of this gas field was recently extended for an additional 10 years. To maintain the current plateau of this field, production tubing of 02 wells has been changed in 2022. And furthermore, a wellhead compressor is being planned to be installed in 2025 to ensure additional recovery.

Moulvibazar: The Moulvibazar gas field is experiencing natural production decline and currently producing around 15 MMscfd. At present, 4 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.

Bangora: The Bangora field started producing in 2006, peaking at 120 MMscfd in 2010 and thereafter declining to 80 MMscfd in November, 2018 from 5 wells. Later on, a successful well intervention program held in November, 2018 augmented the field's production by 20 MMscfd. However, the production of Bangora field started declining from early December, 2021 reaching at a current daily rate of around 50 MMscf.

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 2022 was 521.65 BCF. Since the beginning of PSC operations in Bangladesh in the 1970s, a total of 29 exploration wells have been drilled resulting in the discovery of 6 gas fields.

Initial exploration activities are in progress in blocks SS-04 and SS-09. ONGC Videsh Ltd. (OVL) acquired a total 5,080 lkm of 2D marine plus transition zone seismic survey in Blocks SS-04 and SS-09. OVL is committed to drill 2 exploratory wells in block SS-04 and 1 exploratory well in block SS-09. Out of these commitments, one exploratory well named Kanchan-1 was spud-in on 29 September, 2021 in the Moheshkhali Island situated in block SS-04. The well was successfully drilled up to 4,228m but subsequently plugged and abandoned, not being able to discover any gas. Two more exploratory wells will be drilled in blocks SS-04 and SS-09 during 2022-23.

In Block SS-11, Santos acquired and interpreted 3,146 lkm of 2D seismic data and identified 7 leads. Santos carried out a 305 sq. km 3D seismic survey over one of the potential leads. Despite promising post 3D data interpretation outcome, Santos's decision to wrap up overall activities in the Asia region led them relinquishing the entire block SS-11. Accordingly, the PSC has been terminated.

In Block DS-12, POSCO acquired and interpreted 3,580 lkm of 2D seismic data and identified 5 leads. However, POSCO relinquished the block considering the fiscal terms of the signed PSC were not favorable for their further investment.

Blue Economy

Bangladesh's maritime victory over Myanmar and India has 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 area. Petrobangla is currently implementing three programs related to Blue Economy on a fast track and short term basis.

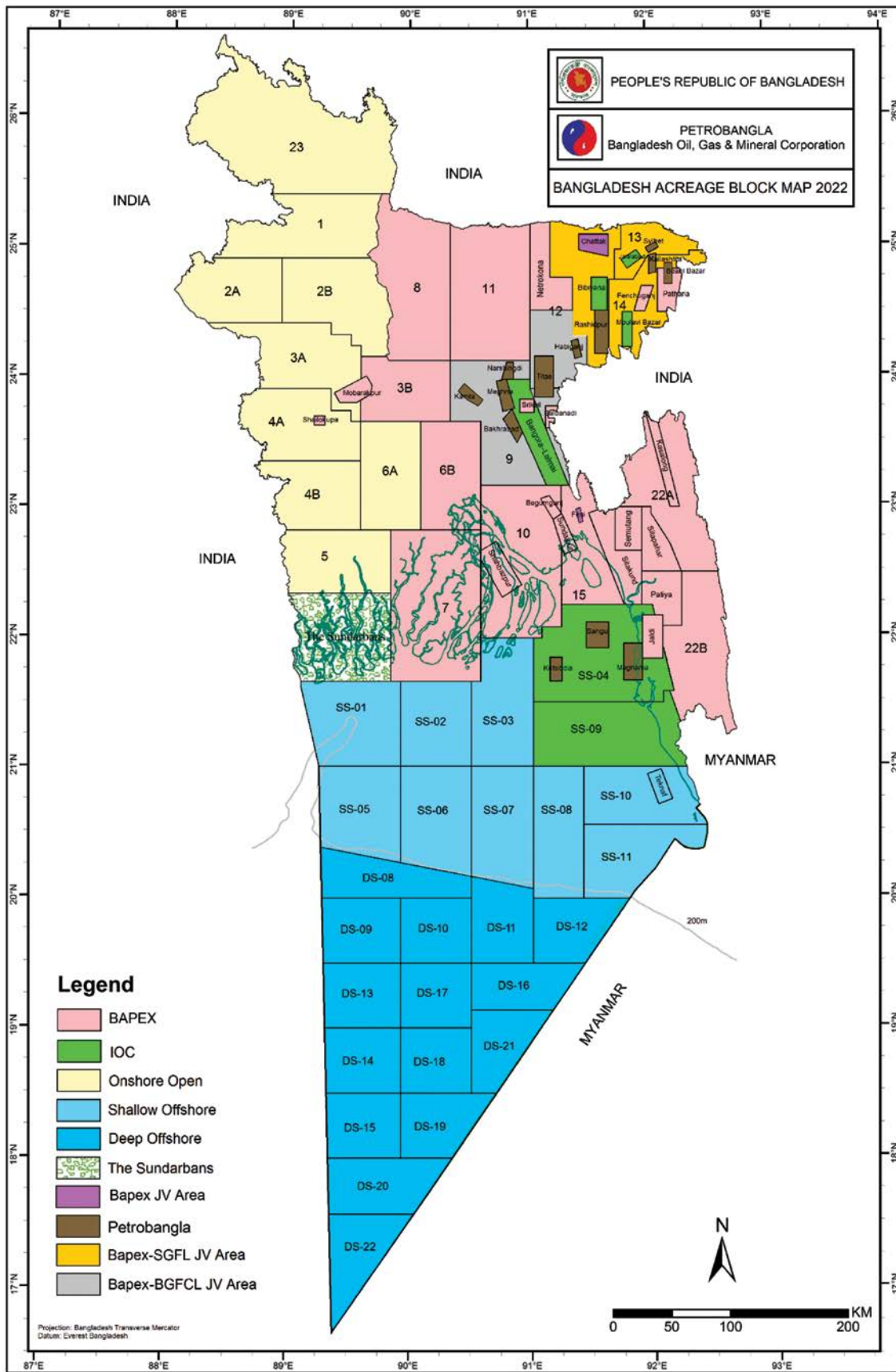
Under the fast track program, an agreement to conduct a 2D non-exclusive multi-client seismic survey in the offshore area of Bangladesh was signed between TGS-SCHLUMBERGER JV and Petrobangla in March, 2020. The objective of this survey is to provide the oil and gas industry with 2D non-exclusive multi-client seismic data of the offshore areas in order to help with basin evaluation, prospect generation and robust bid round participation. Under this agreement a total of 32,000 lkm of 2D seismic survey will be conducted offshore in a phased manner. The JV has declared to commence the first phase of the Multi-Client survey from March 2023. Under this phase around 11,000 lkm of 2D seismic data will be acquired.

Under the short-term program, existing Model PSC 2012 has been updated and split into “Onshore Model PSC 2019” and “Offshore Model PSC 2019”. However, considering the global oil and gas market situation, Petrobangla took an initiative to further improve the fiscal terms of the Offshore Model PSC 2019 by engaging a reputed international consulting firm, Wood Mackenzie. On the basis of the recommendations from the consulting firm, Petrobangla has prepared a draft Offshore Model PSC and sent to the Energy and Mineral Resources Division. The draft MPSC is now awaiting Government’s approval. A bidding round will be declared as soon as the revised Model PSC is approved.

Another short term programs is the drilling of 2 exploratory wells in blocks SS-04 and 1 exploratory well in block SS-09. The drilling of one exploratory well named Kanchan-1 in block SS-04 has already been completed. The well was successfully drilled up to 4,228m but no hydrocarbon was discovered. As a result, the well has been plugged and abandoned. The contractor has obligation of drilling 2 more exploratory wells in the offshore blocks SS-04 and SS-09 by February 2025.

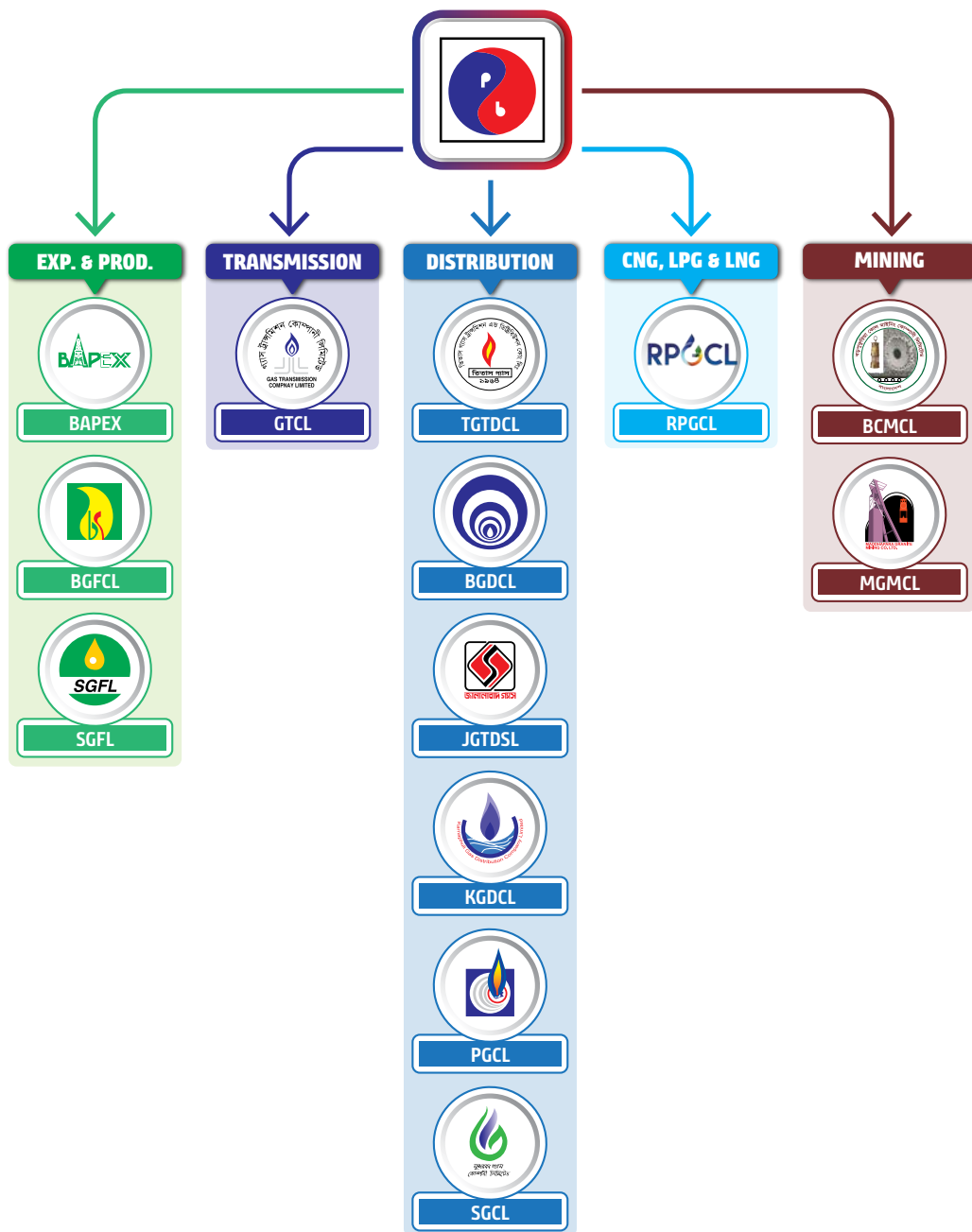


Signing ceremony of “Supplemental Agreement to the Block 12 Production Sharing Contract (PSC) for Bibiyana Flank Area Extension” between EMRD, Petrobangla and Chevron Bangladesh and “Amendment of Jalalabad Gas and Condensate Purchase & Sales Agreement & Amendment of Moulavibazar Condensate Purchase & Sales Agreement for Block 13 & 14” between Petrobangla and Chevron Bangladesh.



Companies of Petrobangla

Over the years, the activities of Petrobangla have 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 the development and marketing of coal and granite.





Bangladesh Petroleum Exploration and Production Company Limited (BAPEX)

BAPEX was established in 1989, as the national exploration company by abolishing the Exploration Directorate of Petrobangla with a view to accelerating oil and gas exploration in the country. The main functions of BAPEX were to undertake geological and geophysical surveys, and Drilling operations for the purpose of exploring oil and gas in the country. The work of exploring oil and gas in the public sector, now undertaken by BAPEX, was originally initiated in 1964 under the aegis of the then OGDC of Pakistan. After independence in 1971, exploration works were conducted by OGDC (Bangladesh) and Oil Exploration (Toilo Sandhani) till 1974 and continued under the Exploration Directorate of BOGMC (Petrobangla) for the next 15 years, later in 1989, BAPEX emerged as a company. Its objective was to undertake exploration work 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.

In the FY 2021-22, the total amount of gas produced from 7 gas fields of BAPEX, namely Saldandi, Fenchuganj, Shahbazpur, Semutang, Srikail, Begumganj, Shahjadpur-Sundalpur are about 50 BCF maintaining daily production ranging from 130-145 million cubic feet. However, during the financial year, a maximum of 150 million cubic feet of gas have been produced. 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 70,0633 barrels of condensate was produced as a byproduct which was sold to Bangladesh Gas Fields Company Limited, Sylhet Gas Fields Limited and Bangladesh Petroleum Corporation.

BAPEX has drilled 18 exploratory wells, out of which 10 gas fields have been discovered (7 of them are producing). Since inception, BAPEX has successfully completed workover operations on 48 wells and drilling of 32 development wells. Experience of exploring oil and gas gathered over a period of 33 years has enhanced the technical capacity of BAPEX. New gas reserves are to be explored through the ongoing drilling works will help implement the Vision 2041 by mitigating the energy crisis of the country.

BAPEX has a 10% credit partnership in 2 production sharing contracts (PSCs) signed with ONGC Videsh Ltd. (OVL) and Oil India Ltd. (OIL), the state-owned enterprises of India, for the shallow seas blocks SS-4 and SS-9 under Bangladesh Offshore Bidding Round 2012. There are plans to drill 2 more exploration wells in these blocks. In addition, BAPEX is monitoring the operations of the Bangura gas field as a 10% participatory partner with Tullow Bangladesh Limited (Kris Energy) and Niko Resources Block-9 Limited in PSC Block-9. After a long 10 years of legal pleading, the International Center for Settlement of Investment Disputes (ICSID) proclaimed the verdict in the Niko case on behalf of Bangladesh, where the Canadian company Niko Resources (Bangladesh) Limited caused 2 consecutive blow-outs in January and June, 2005 due to their negligence while drilling a well in the Chattak Gas Field.

During the FY 2021-22, total earnings of BAPEX stood at Tk. 6,695.50 million, of which Tk. 4,515.60 million (excluding SD and VAT) earned from sales of natural gas and condensate of own gas fields and Tk. 126.30 million were earned from PSC Block-9, interest income and income from other sources. Against these earnings, the total cost stood at Tk. 4,850.10 million during the year. The net profit after tax of the company stood at Tk. 1,227.20 million. During the FY, the revenue reserve stood at Tk. (3,251.50) million after the prior year's adjustment costs of Tk. 80.20 million and accumulated revenue of Tk. (4,398.50) million. The company paid Tk. 2,432.30 million to the Government's exchequer during FY 2021-22.

Future work plans (2023-2041)

With a view to achieving the aspired goal to uplift the country to middle income by 2021 and to a developing country by 2041 under “Vision 2041”, BAPEX has prepared a future plan for the period of 2023-2041. It has been planned to implement 20 projects in the short-term (2022-2025), 8 projects in the mid-term (2026-2030) and 10 projects in the long-term (2031-2041). The overall activities of BAPEX are closely associated with the aspired goal of the Government.

BAPEX has formulated a time-bound action plan with a view to accelerating the exploration of oil and gas and augmenting production by 2041. 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 to reach its target.



Sreekail Gas Field of BAPEX

Vision 2041 of BAPEX

The Hon'ble Prime Minister of the People's Republic of Bangladesh, expressed her deep interest in strengthening BAPEX, the sole state-owned petroleum exploration company on 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 2041:

- Geological survey: 1,500 lkm
- 2D seismic survey project: 20,720 lkm
- 3D seismic survey project: 6,880 sq. km
- Drilling of exploratory wells: 40
- Drilling of development wells: 21 and workover: 10

Up coming projects during FY 2023-24 are: 2D seismic survey over exploration blocks 15 and 22; Bijoy-10, 11, 12, IDECO rig maintenance, IPS rig upgrade and rig supporting equipment replacement project; 1 exploratory wells (Srikail North-1A) and 2 appraisal cum development well (Sundulpur-3 and Begomgonj-4 West) drilling project, Procurement and installation of a 60 MMscfd process plant for Shahbazpur Gas Field; 3D Seismic Survey Over Zakiganj and Patharia West Structure and 2D Seismic Survey Over Exploration Block 6B South & 10.



Bangladesh Gas Fields Company Limited (BGFCL)

Bangladesh Gas Fields Company Limited (BGFCL) is the largest state-run natural gas producing Company under Petrobangla. The Company is entrusted with natural gas production and supply to national transmission grid.

BGFCL's emergence is related to a historic and visionary decision of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman. Immediately after the independence, the Father of the Nation made a milestone decision to bring country's gas resources under state ownership. Accordingly, Bangabandhu bought 5 gas fields-Titas, Habiganj, Bakhrabad, Rashidpur and Kailastila from the then Shell Oil company and put those fields under state ownership on 9 August 1975. Later on, the Shell Oil Company was renamed as 'Bangladesh Gas Fields Company Limited (BGFCL)' on 12th September 1975. Out of those 5 gas fields, Titas, Habiganj & Bakhrabad along with 3 others totaling 6 gas fields are being operated by BGFCL.

To realize the dream of Bangabondhu, Hon'ble Prime Minister Sheikh Hasina, visionary daughter of Bangabondhu, put energy security as the highest priority to transform a developed & prosperous Bangladesh by 2041. In this context, gas is an inevitable component in country's energy security and as a natural gas producing Company, BGFCL is playing an important role for the development and progress of the country.

BGFCL produces approximately 610 million cubic feet of gas daily, which is about 24% of country's total gas supply and about 73% of the production of state-owned companies. Besides, condensate, a by-product of gas is being delivered to private fractionation plants as per allotment of concerned authority.

Out of 6 gas fields of BGFCL, currently 5 fields except Kamta are in production. BGFCL owns 29 gas process plants of Glycol, Silicagel, LTX & LTS type. The processed gas is being supplied to TGTDC, JGTDSL and GTCL through national transmission network. BGFCL is carrying out drilling of new wells, workover of existing wells, installation of gas compressors & process plants etc. with the financing of GDF, ADB, AIIB, GOB and JICA aligning with the government work plan.

According to the study report-2010 of Gustavson Associates of USA engaged by Hydrocarbon Unit (HCU) of Energy and Mineral Resources Division, the total gas reserves of 6 gas fields of the Company is 12,252,000 million cubic feet of which 9,180,562.791 million cubic feet of gas has been recovered till 31 December 2022.

During the fiscal year, under Company's development project, joint operation of 7 nos. wellhead compressor at Titas Field Location-A has been start on 04.04.2023 after installing, commissioning and testing. Installation of wellhead compressor Titas Field Location-E & G is underway. Contract signed with EPC contractor on 12.10.2022. The company have forth future to drilling 4 wells at Titas & Kamta Fields, 1459 sq.km. 3-D Seismic Survey at Habiganj, Bakhrabad & Meghna fields and drilling 01 exploration well (deep well) at Titas field and DPP approval of the associated projects is currently under process.

During this fiscal year 2021-2022, 95.84% pogrress has been achieved against the target of Annual Performance Agreement (APA).

The main source of the Company's revenue income is the sale proceeds of natural gas and petroleum products. During the financial year 2021-2022, the Company earned TK. 860.63 crore from sales of 6376.56 million cubic meter of natural gas, TK.110.15 crore from the sales of 249.08 lac liters of petroleum product. In addition, the Company earned Tk. 91.22 crore from other sources including interest on bank

deposits. As a result, the gross revenue income of the Company stands at Tk. 1064.29 crore under review. After deduction of total expenditure of TK. 1016.47 crore (including VAT), the Company made a pre-tax profit of Tk. 47.82 crore in the financial year 2021-2022. During the financial year 2021-2022, the Company paid total amount of Tk. 888.53 crore to the National Board of Revenue and national treasury, which was 91.31% of total sales income.

BGFCL paid tribute of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman and all Shaheed members of his family with due respect and honor. The Company provided Tk. 9.66 lac (nine lac sixty six thousand) from CSR fund for various social activities of Brahmanbaria district administration including observance of National Mourning Day. The Company has also donated Oxygen Cylinder, medicine & other health items to combat Second Wave of Corona Virus (Covid-19). Besides, financial grants was provided to different educational, social welfare, religious and underprivileged organizations/institutions. In the financial year 2021-2022, the Company provided financial grant for Tk. 59.96 Lac (Fifty nine lac ninety six thousand) which brightened Company's image at local and national levels as well as played a positive role in socio-economic development.

Environment and safety related regulations are being complied during operational and development activities of the Company. In project implementation, environmental clearance certificates are taken/renewed from Department of Environment. Proper safety measures are taken on imported explosives and radioactive materials for use in different projects of the Company. The report of Petrobangla's ESMS (Environment and Safety Management Systems) project are followed in the Company. Produced water from the wells is treated through ETP for environmental friendly disposal. Tree plantation and nursing are also being continued.

The world is passing through a turbulent phase in the post-Covid-19 global economic scenario. In this context, BGFCL doing it's best to implement the action plan of the government to face the challenges.



Habiganj Gas Field of BGFCL



Sylhet Gas Fields Limited (SGFL)

Sylhet Gas Fields Limited is one of the largest state-owned gas producing company in the country. It used to be operated under 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 the 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 the Sylhet and Chhatak fields or elsewhere in Bangladesh owned by Pakistan Petroleum Ltd. (PPL).

The company, under its umbrella, currently operates 4 gas fields namely Sylhet (Haripur), Kailashtila, Rashidpur and Beanibazar. It also operates 2 condensate fractionation plants and one catalytic reforming unit namely Rashidpur Condensate Fractionation Plant (RCFP), a 4000 BPD CFP plant and a 3000 BPD CRU plant. A total of 13 wells (3 at Sylhet, 3 at Kailashtila, 5 at Rashidpur and 2 at Beanibazar) are presently on stream which produces an average of 95 MMscfd gas. The produced gas is supplied to Jalalabad, Bakhrabad, Pashchimanchal and Karnaphuli gas distribution companies franchised areas.



Rashidpur CRU Plant of SGFL

SGFL shares about 3.25% of the country’s total gas production. In the FY 2021-2022 (up to December, 2022), SGFL produced 49.15 BCF of gas and 313,651 barrels of condensate from its own fields. The company also produced 1,818,468 barrels of finished petroleum products (petrol, diesel, kerosene and Octane) by fractionating condensate from its own fields and the Bibiyana Gas Field operated by Chevron and supplied to different marketing companies of Bangladesh Petroleum Corporation.

The company has been implementing various development projects to meet the growing demand for energy and enhancing the company’s revenue income. The ongoing projects include: (i) a 3D seismic survey of Beanibazar field of SGFL; (ii) Drilling of well no. Kailashtila-8 (exploratory well); (iii) Work over of well no. Sylhet-8, Beanibazar-1 and

Kailashtila-7; (iv) 3D seismic survey at the relinquished area of acreage block 13 and 14 (v) Drilling of well no. Sylhet-10 (exploratory well) (vi) Gas gathering pipeline construction from the RP-9 well to Rashidpur process plant; (vii) Installation of 45 MMscfd capacity gas process plant at Haripur Field. (viii) Workover of Kailashtilla-2, Rashidpur-2, Rashidpur-5 & Sylhet-7 wells.

The company has also taken the following projects to increase gas production by the year 2024. (a) Drilling of well no. Rashidpur-11 (Exploratory well); (b) Drilling of Well no. Sylhet-11 (Development well) & Rashidpur-13 (Exploratory well) (c) Drilling of well no. Dupitila-1 & Kailashtila-9 (Exploratory well) and (d) Workover of well no. Rashidpur-3, Rashidpur-7 & Beanibazar-2.

The company earned pre-tax profit to the tune of Tk. 2,187.00 million during the FY 2021-2022 and paid Tk. 218.90 million as supplementary duty and VAT, Tk. 715.20 million as income tax, Tk. 850.00 million as dividend and Tk. 201.00 million as DSL. The total contribution by the company to the Government exchequer in the financial year stood at Tk. 3,947.10 million which was 32.43% of the total income from sales. Sylhet Gas Fields Limited was adjudged the top-most VAT paying organization in the production sector at national level for the last 9 consecutive years up to FY 2021-2022 and was rewarded by the National Board of Revenue.



Gas Transmission Company Limited (GTCL)

Gas Transmission Company Limited (GTCL) was incorporated on 14 December, 1993 with the objectives of (i) centralized operation and maintenance of national gas grid; and (ii) expanding of national gas grid and as required, ensuring balanced supply and usage of natural gas in all regions of the country. 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 2021-22, GTCL transmitted in total 863.52 BCF of gas, 4.47% lower than the previous year, delivering 541.38 BCF, 88.96 BCF, 109.31 BCF, 59.95 BCF, 50.24 BCF and 13.68 BCF to franchise areas of Titas, Bakhrabad, Karnaphuli, Jalalabad, Paschimanchal and Sundarban gas distribution companies respectively. The total amount of RLNG transported is 240.49 BCF. And, from July'22 to december'22 of FY 2022-23, GTCL transmitted in total 385.86 BCF of gas.



Bizra TBS, Cumilla of GTCL

Ongoing projects were: (i) Construction of 30" X 150 km Bogura–Rangpur–Syedpur Gas Transmission Pipeline Project; (ii) Construction of 42" X 50 km Bakhrabad–Meghnaghat–Haripur Gas Transmission Pipeline Project; (iii) Installation of Gas Stations on Off-Transmission Points and Modification; & (iv) Construction of 36" X 10 km Gas Transmission Pipeline on Bangabandhu Sheikh Mujib Railway Bridge.

Up-coming projects are: (i) Construction of 30" dia. 65 km Shahbazpur–Bhola North–Laharhat–Barishal Gas Transmission Pipeline Project; (ii) Construction of 36" dia. 110 km Langalband–Gopalganj Gas Transmission Pipeline Project; (iii) Construction of 42" dia. 190 km & 36" dia. 60 km Kuakata–Payra–Barisal–Gopalganj–Pakirhat–Khulna 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 a 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 the national gas grid from 18 August, 2018 and 29 April, 2019 respectively. With the aim of supplying RLNG from the imported LNG to the national grid, GTCL has already constructed 30" x 91 km transmission pipeline from Moheshkhali to Anowara, Chattogram; 42" x 30 km gas transmission pipeline from Anowara to Fouzdarhat; 42" x 79 km parallel transmission pipeline from Moheshkhali to Anowara; 42" x 7 km transmission pipeline from Moheshkhali zero point (Kaladiar Char) to CTMS (Dhalghat Para) and 36" x 181 km Chattogram-Feni-Bakhrabad parallel transmission pipeline. With these pipelines and associated stations, 240.49 BCF RLNG has been transported through the national gas grid during FY 2021-22.

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 with assistance from the access to information (a2i) program of the Prime Minister's Office for creating digital Bangladesh, the company's e-file management was 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 relating to procurement of goods and works are being completed through the national e-Government procurement (e-GP) portal for ensuring wide participation and establishing equal rights of all bidders and maintaining procurement skill, transparency and accountability.

Information Technology

Enterprise Resource Planning/Enterprise Asset Management (ERP/EAM) Systems are being used for performing the Company's official activities. At present payments of all bills, financial & administrative approval, budget clearances, managements and preservation of all personal information of all officials and staffs, leave applications & approval, paying of salaries, material/inventory management etc. are being done with six modules of the ERP/EAM System and regular maintenance of ERP system is going on. GTCL ICT Officers are learning SAP module configuration, report generation and resolving day to day issue while working with the ERP supplier team. GTCL ICT are determined to build a team to operate and maintain the ERP application, Database and Network in near future. Besides these, the important meetings/ board meetings are being held via online using ZOOM application under the supervision of ICT department.

Installation of Explosion and Water proof IP camera with alarm system on GTCL platform at Maheshkhali Zeropoint area has been successfully completed. The entire Zeropoint platform area is covered by 11 IP cameras and 2 IP horn speakers. Now the platform is being monitored from the Maheshkhali CTMS control room located 7 km away from the platform. With the help of the alarm system (microphone and horn speaker), the officer of Maheshkhali CTMS can give warning and instructions to leave the high-pressure gas line area immediately to the intruder in the platform area. Besides, it is also possible to monitor the platform through mobile apps from anywhere.

To bring KPI stations of company's western zone under round-the-clock security surveillance, installation of total 135 IP cameras has been completed at total 09 (nine) regional offices, Hatikumrul, Baghabari, Bonpara, Rajshahi, Ishwardi, Bogra, Bheramara, Khulna and Kushtia TBS. Now monitoring of two sites, Baghabari and Rajshahi, is also possible from the head office through internet and CMS software.

In order to increase the inter-communication among the officers of GTCL, the officers up to Deputy Managers rank of the company have been provided the PABX connection. A total of 255 connections have been provided so far and regular maintenance activities are ongoing. Public Address System has been implemented in GTCL H/O to provide safe evacuation instructions in case of emergencies and official announcements for participating any event.

The official website of GTCL (gtcl.org.bd) has been included in the National Web Portal. In addition, GTCL has started using the official Zimbra e-mail system installed at the National Data Center (NDC) for all official communications. In the initial stage, all the officers from the Managing Director to the Managers have been given separate e-mail IDs in GTCL domain. Besides, common e-mail ID is being provided for each department for official needs.



Titas Gas Transmission and Distribution Company Limited (TGTDCCL)

The discovery of a huge gas field on the bank of the Titas River in Brahmanbaria in 1962 created a new horizon for the utilization of natural gas. Titas Gas Transmission and Distribution Company Limited (TGTDCCL) 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 a 14” x 58 km Titas-Demra gas transmission pipeline by the then East Pakistan’s 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, as well as Pakistan Shell Oil Company-owned the rest. Under the Nationalization Order of 1972, all the Government-owned shares of the company vested in the Government of Bangladesh (GoB). In accordance with an agreement signed Shell Oil Company and the GoB on 9 August, 1975 the ownership of the remaining 10% of shares were 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% of the shares of this company while private shareholders hold 25% of the shares.

The main objective of the company is to supply natural gas to customers in 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.

Presently, the total length of pipeline owned by the company is 13,320.39 km including 46.93 km built during the FY 2021-22. The total number of customers of the company was 28,77,604 as of 30 June, 2022. Bulk customers of the company include 3 fertilizer plants, 47 power stations. The company hogs, about 55% of the natural gas market share in Bangladesh.

During FY 2021-22, total of 552.89 BCF of gas (including condensate) was sold and Tk. 1,83,273.16 million was earned as revenue with meter rent and surcharge, which was Tk. 1,78,312.70 in the previous FY. During the FY, a sum of Tk. 1,81,723.90 million was realized against the revenue income of Tk. 1,83,273.16 million, which was Tk. 1,549.30 million less than the receivable. The company earned a net profit before tax and a net profit after tax of Tk. 3,868.60 million and Tk. 3,180.20 million respectively. The company paid Tk. 6,408.50 million to the Government exchequer during FY 2021-22. During the year the earnings per share (EPS) was Tk. 3.21.

A 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 an 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; paying gas bills through Rocket and Nexus Pay of Dutch-Bangla Bank, Nagod and bKash.

“Installation of Prepaid Gas Meter Project :

A project captioned “Installation of Prepaid Gas Meter for TGTDCCL” As per the Natural Gas Efficiency Project (BD-P78) included in the 35th ODA Loan Package of the Government of Japan, the “Installation of Prepaid Gas Meter for TGTDCCL” (2nd Amendment) has been amended to install 3.2 lakh prepaid gas meters in Dhaka metropolitan area. , JICA and TGTDCCL (own) are under implementation with an estimated cost of Tk 653.64 crore from January 2015 to December 2022. The main objective of this project is to reduce system loss at the consumer level in the residential sector of Dhaka metropolitan area; Renewable fuels play a significant role in conserving natural gas; Increase gas utilization efficiency and company management efficiency among customers, reduce maintenance costs and above all increase the positive impact on the environment; To achieve the above objective, to ensure state-of-the-art efficient and environmentally friendly natural gas supply system by installing 3.2 lakh prepaid meters for the residential customers of Dhaka city.

Invalid gas connection information Illegal Gas Disconnection / Pipeline Removal:

The company has conducted special inspection and disconnection program regularly to detect illegal gas use by dishonest customers and disconnect immediately, which included Industrial, CNG, Captive Power, Commercial and Domestic customers. Under this program, different categories customers’ premises were inspected and 12 industries, 8 captive powers, 31 commercial and 186 domestic customer’s gas connection have been disconnected due to illegal gas use/connection/use of unauthorized appliances in financial year 2021-22.

Removal/ Disconnection of Illegal Gas Pipeline:

Titas Gas T&D Co. Ltd. has taken initiative to run Mobile Court Program to disconnect illegal gas pipeline and connection, which was monitored by Central Task Force and supervised by District and Upozilla committee. In 2021-22 fiscal year, 340 km illegal gas pipeline and approx. 2,74,066 illegal burners were disconnected from 902 no’s of source point in 244 disconnection program.

Statistics of disconnection by vigilance/marketing/revenue divisions of Company in the FY-2021-22 is given below:

Customer Category	Disconnection due to gas pilferage/illegal connection/gas use in appliances beyond approved capacity	Disconnection due to arrear bills	Total
Industry	53	127	180
CNG	7	18	25
Captive Power	21	63	84
Commercial	77	202	279
Domestic	4419	12723	17142
Total	4577	13133	17710



Bakhrabad Gas Distribution Company Limited (BGDCL)

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



Maintenance work in Cumilla by BGDCL

In the organizational structure of the company, the number of authorized officers is 450 and the number of staffs is 656, with a total workforce of 1106. As on March, 2023, the total number of working regular manpower is 776 including 238 officers and 538 staffs. Further, 320 staffs are employed on full temporary basis as opposed to permanent posts due to the work requirement of the company.

The cumulative gas pipeline of different categories constructed by the company up to February, 2023 was 3,891.84 km. The cumulative gas connection stood at 490,503 as on February, 2023 which includes 16 power plants, 1 fertilizer, 201 industries, 83 captive power stations, 1563 commercials, 575 Small and Cottage Industries, 91 CNG stations and 487,973 domestic (Burner) connections.

During the financial year 2022-23 (up to January, 2023), BGDCL purchased 56.93 BCF of gas and sold 54.39 BCF of gas to its customers. The company has deposited a total of Tk 334.20 crore (as on December, 2022) to the government exchequer towards DSL, income tax and dividend etc.

A total of 1513 customers of various categories were disconnected due to non-payment of gas bill during the financial year 2022-23 (as on February, 23). Dues of Tk. 19.5 crores out of Tk. 23.9 crores has been recovered from disconnected customers till February, 2023 and efforts are on to recover the remaining dues. In FY 2022-23 (till March, 23) 33.19 km. of illegal pipelines of different diameters have been removed/deactivated and 5852 illegal connections were disconnected.

BGDCL has taken various steps in building Smart Bangladesh. 31 contracted banks and GPay, Rocket, Ekpays, Telecash, Nagad software have started online gas bill collection from metered and non-metered customers. It may be noted that the registration of 196,327 customers has already been completed for online gas bill payment. According to the latest data, 121,437 customers paid bills of Tk 130.80 crore through online in February, 2023.

BGDCL has launched “BGDCL Gas Distribution Management System” software developed by IICT, BUET to integrate revenue, marketing and engineering services activities of the company. Also, various types of accounting software and “BGDCL Contractor Management System” software for contractor registration and renewal have been launched. Recently the company has developed ‘Customer Service tracking System’ software in the financial year 2022-23 as part of work mobility and innovation activities.

The company is inviting tenders through the e-GP system to ensure transparency and accountability in the procurement process. Out of 07 e-tenderable tenders for the financial year 2022-23 (up to March, 2023), all tenders have been completed through e-GP. E-filing system has been introduced from June 2018 at all levels in these companies under the A2I project of the Hon’ble Prime Minister’s Office. This has increased the dynamism and accountability in the company’s official work.

Arrangements are being made to prepare Geographic Information System (GIS) based maps of each transmission and distribution line. As part of this, GIS Based digital map of 29 km gas pipeline network of 10” diameter 24 bar pressure from Kutumbpur to Nandanpur has been prepared. Also, at the end of the project titled “Consultancy services for Implementing the Automation of Gas Transmission and Distribution Pipelines Networks under different companies of Petrobangla” under the implementation of Petrobangla, measures will be taken to bring the pipelines of BGDCL under automation as per the advice of the consulting firm.



Data collection for Gis mapping by BGDCL

In order to implement the Government of Bangladesh’s commitment Vision-2021 and to build a digital Bangladesh, an integrated Enterprise Resource Planning (ERP) implementation program has been undertaken for Petrobangla and its affiliated companies to achieve the expected goals and ensure accountability in government activities through proper implementation of the government’s declared policies and programs, here BGDCL also is included.



Jalalabad Gas Transmission and Distribution System Limited (JGTDSL)

The commercial use of natural gas began with the supply of gas to the Chhatak Cement Factory in 1960 & Fenchuganj Fertilizer Factory in 1961. Subsequently, with the completion of Habiganj Tea Valley Project in 1977, the activities of the Sylhet Town Gas Supply Project were initiated to meet the demand of gas in greater Sylhet region and gas connection in the Sylhet town was started formally in 1978 with the



12" dia to 8" dia pipeline hot tapping works at GTCL valve station, Madhabpur by JGTDSL.

inauguration of supply of gas at the premises of the mazar of Hazrat Shahjalal (R). Thereafter, the gas supply network recorded a significant expansion gradually in the Sylhet region which helped formation of Jalalabad Gas Transmission and Distribution System Limited (JGTDSL) on 1 December, 1986 through infrastructural development of gas transmission & distribution system under the management of Petrobangla.

The Company possessed a total of 3868.41 km gas network comprising of 554.90 km transmission, 1341.35 km distribution,

1224.72 km feeder mains and service lines and 747.44 km other (customer financing) pipelines. During the Fiscal Year 2021-2022, the Company constructed 32.33 km pipelines including 2.33 km distribution lines. The company provided 12 new connections which included 2 captive power and 10 industrial connections. The cumulative gas connection stood at 2,21,461 as on 31st December, 2022 which includes 19 power, 1 fertilizer, 129 industrial, 128 captive power, 803 commercial, 100 tea-estate, 59 CNG, 458 small and cottage industry and 2,19,764 domestic (Burner) connections.

During the FY 2021-2022, the gas sales of the company was about 148.781 BCF of which power plants consumed 102.659 BCF (69%) and others 46.122 BCF (31%). During the FY 2021-2022, the Company earned Tk. 31830.50 million as revenue which included sales revenue of Tk. 29875.10 million and other income Tk. 1955.40 million, Tk. 2592.20 million as net profit before tax and Tk. 1529.40 million after tax. The Company paid Tk. 1748.60 million to the national exchequer.

During the FY 2021-2022, gas connection of 2 no. of different categories of customers i.e. 62 commercial and 3995 domestic customers have been disconnected due to non-payment of gas bills amounting to

TK. 53.27 million of which, gas connection of 2 industrial, 46 commercial and 3817 domestic customers i.e. a total of 3865 numbers of connections of the customers have been reinstated by realizing Tk. 61.63 million.

JGTDSL has been conducting regular drives against illegal connections, construction of illegal pipeline and illegal installations/structures on Company's high pressure gas pipeline in line with the decision of Energy & Mineral Resources Division and Petrobangla. The task-force committee formed by JGTDSL on eviction of illegal installations built on high pressure pipeline issued notices identifying 424 nos. of illegal installations on the transmission lines of the Company up to February 2023. A total no. of 291 illegal installations have been removed/evicted by conducting 6 operations so far with the aim of removing illegal installation on the high pressure pipelines through task-force committee and mobile court, the eviction of remaining 133 illegal installations are in progress.

JGTDSL already started online gas bill collection through VISA/Master card, bkash, Rocket, Surecash, gpay, Robicash, Ok wallet and on realtime with several bank by which a customer can pay their gas bills at any time without appearing any bank by using mobile internet. Information pertaining to an updated status regarding payment of the gas bill are being provided to the customers through SMS. Customer services are also going on uninterruptedly through hotline no. 16511.

A project titled "Installation of 50000 pre-paid gas meter in JGTDSL franchise area" has been taken for the domestic customers of Sylhet City Corporation and Sylhet Sadar Upazilla introducing energy savings pre-payment gas meter for efficient use of natural gas, prevention gas wastage, to increase management efficiency of the Company and to help achieve sustainable development goals of the government through ensuring energy security. The project is self-financed and it was approved on 8 February 2021 and its first revision was approved on 14 August 2022 by Energy and Mineral Resources Division. The revised approved cost of the project is 13650.00 lakh and revised implementation period is January 2021 to December 2023. Consultant & EPC contractor for the project have already been appointed. Customer premises survey and civil works for data centre of the project are going on. Installation of meter in the premises of domestic customers will be started from April 2023.

A project titled "Construction of Central Store Complex of JGTDSL" has been taken up for construction of a 4-storey office building, a 3-storey store building, a 2-storey store building, 1-storey Ansar building, 14 pipe yard, 1 scrap yard for proper storage of goods, saving time and money by distributing the linepipe & pipeline materials in the shortest possible time and protecting & pretending wastage of the goods through central security management of the Company. The project with the estimated cost of Tk. 2168.80 lakh was approved by the Energy and Mineral Resources Division on 1st June 2022. A consultant has been appointed to prepare all the master plan and design, drawing & estimation of various infrastructure of the project. The implementation period of the project is March 2022 to June 2024.



Construction works of 10" dia x 300 PSIG x 17 Km pipeline from Mirpur Natun Bazar DRS to Putijuri Bahubol, Habiganj by JGTDSL



Pashchimanchal Gas Company Limited (PGCL)

Pashchimanchal Gas Company Limited (PGCL) is the 4th gas marketing company under the 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 2021-22, a total of 20.576 km of pipeline of various diameters was constructed and by the end of June, 2022, the company would have encompassed a network of 1671.369 km of pipeline. By the end of December, 2022, the company encompassed a network of 1,672.130 km pipeline.

At the end of FY 2021-22, the company provided gas connections to 1,29,401 customers, including 9 new gas connections (3 industrial, 3 captive power, 1 CNG and 2 Domestic (Govt.). By the end of December, 2022, the company provided 6 new gas connections (1 industrial, 3 captive power and 2 Domestic (govt.). During this fiscal year, a total of 1394.343 MMCM gas was sold by the company as compared to 1555.920MMCM gas in the previous year. The company earned Tk. 10,734.60 million in revenue from sales during FY 2021-22 and earned Tk. 1,161.30 million as net profit before tax. A total of Tk. 1504.40 million has been deposited to the national exchequer during this fiscal year.

The company is always putting its best efforts into achieving its goals. Over time, the company has extended its gas network facilities in Sirajganj, Baghabari, Bera, Santhia, Shahjadpur, Pabna, Ishwardi (including Ishwardi EPZ), Bogura, Rajshahi and other important areas to reach the benefits of the gas facility on the doorstep of the masses.

PGCL conducts drives against gas pilferage and illegal activities regularly. A total of 1057 gas connections have been disconnected for illegal gas consumption through legal connection and gas bill default in FY 2021-22 where 1049 domestic, 7 commercial and 1 industrial connections are included. On the other hand, by recovering the arrears in gas bills amounting to Tk. 13.294 million and the penalty amounting to Tk. 0.885 million, a total of 969 nos. customers have been provided gas reconnection.

In FY 2021-2022, a total of 324 nos. gas connections have been disconnected for illegal gas consumption and gas bill default from July to December, 2022; 323 domestic And 1 commercial were included. On the other hand, by recovering the arrears in gas bills amounting to Tk. 4.66 million and the penalty amounting to Tk. 0.322 million, a total of 364 customers have been provided gas reconnections during this period.

The project “Rangpur, Nilphamari, Pirganj and their adjoining areas” for supplying the natural gas through pipelines in Rangpur Division is going on. Besides, A proposal of DPP for the installation of 128,000 prepaid gas meters, SCADA & GIS at PGCL franchise area is in process with foreign aid of WB.

All tenders 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 participation 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) programme of the Prime Minister’s Office for creating digital Bangladesh, e-filing activities have been successfully implemented in PGCL. All file works of the company are being completed through the e-filing system. Payment of gas bills online has already been implemented in the company. Information pertaining to an updated status regarding payment of the gas bill has been provided to the customer through SMS. Besides, customer services are also going on uninterruptedly through hotline no. 16514 (from any mobile) or 096130-16514 (from any BTCL connection).

Under the Government performance management system, an annual performance agreement (APA) was signed between Petrobangla and PGCL for FY 2021-22. PGCL has achieved 99.31% 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 the EVC meter, human resources development, implementation of the APA efficiently, implementation of an e-filing system, implementation of innovative ideas/small improvement projects (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 pursuant to a government decision to rationalize and improve the services rendered to the customer. The commercial activities of the company commenced on 1 July, 2010.

During the FY 2021-2022, the company has been able to make a pre-tax profit of Tk. 16,395.9 million by selling gas worth Tk. 47,900.8 million in various sectors. A total of Tk. 8,595.9 million has been deposited in the state exchequer, including Tk. 5,654.8 million as dividends, Tk.1,592.1million as corporate tax, Tk. 1,320.5 million for income tax deducted from supplier's bills and Tk. 28.4 million for VAT. As against the purchase of 3,062.21 million cubic meters of gas in that fiscal year, the sale of 3,095.86 million cubic meters of gas resulted in a system gain of 1.10 % .The cumulative gas connection stood at 6,01,703 as including 5 power, 4 fertilizer, 1,163 industrial, 203 captive power, 2,884 commercial, 2 tea gardens, 70 CNG and 5,97,372 domestic connections.



Installation of TBS at Semutang by KGDCL

The online bill payment system has been launched in KGDCL from July, 2017 with the aim of simplifying the gas bill payment system. The company's customers of all classes are currently paying their gas bills online through various branches of 24 banks in Chattogram. KGDCL's non-metered residential customers can pay gas bills through Rocket, Nexus Pay, Visa Card, MasterCard. Bills are also being collected from residential customers through various mobile financial services (SureCash, TeleCash, MyCash) and Grameenphone "Bill-Pay" system. The web-based customer portal (billing.kgdcl.gov.bd) has been further customized to make it easier for KGDCL customers to know their billing updates. The company is now performing official work to

a large extent through the e-nothi system. 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 to ensure effective use of natural gas, a project to install 60,000 nos. of pre-paid gas meters in domestic gas connections in Chattogram city area has already been completed within the timeline of 30 June 2019. Pre-paid customers currently purchase gas volumes through NFC cards from 17 point of sales (POS) stations and use the gas by recharging the pre-paid meters installed in the customer's yard. Another project of Tk 2,416.10 million by KGDCL own fund to install 1,00,000 nos of pre-paid meters in domestic gas connection in Chattogram city area is underway.

With the aim of promoting Bangladesh to an industrialized and middle income country by 2021 through massive industrialization, economic zones have been established by the government in various parts of the country, among which the Bangabandhu Sheikh Mujib Shilpanagar (Mirsarai Economic Zone) located in the Mirsarai region of Chattogram district is one of them. In order to accelerate industrialization in this economic zone managed by Bangladesh Economic Zone Authority (BEZA), KGDCL has construction of various facilities including construction of gas pipeline.

Although disconnection and reconnection of gas to defaulting customers is an ongoing process for revenue collection, a significant amount of arrears of gas bills, unregistered gas bills and fines have been collected by disconnecting defaulting and illegal gas users by forming special disconnection teams. During FY 2021-2022, a total of 2,666 nos. of illegal gas connections were disconnected and earned Tk 248.90 million as revenue from unauthorized and unscrupulous customers.



Sundarban Gas Company Limited (SGCL)

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.



PDB's 225 MW CCPP RMS, Borhanuddin, Bhola under SGCL

Presently, the Company is continuing supply of natural gas and providing post connection service to VERL 34.5 MW RPP, NBBL 220 MW CCPP, Bhola 225 MW CCPP (BPDB), 2 captive power, 2 Commercial, 5 Industrial, 26 metered domestic connections and 2346 non-metered domestic customers in the island district Bhola. In addition, gas is being supplied to Bheramara 410 MW CCPP located at Kushtia District. In FY 2021-22, around 994.993 MMCM gas has been supplied to power plant and 38.881 MMCM gas to other non-bulk customers. On average, 100 MMSCFD gas is being supplied to different customers in SGCL franchise area.

Besides, gas is being supplied commercially to 220 MW CCPP of Nutan Bidyut (Bangladesh) Limited (NBBL) at Borhanuddin, Bhola for power generation on emergency basis. With the funding of Nutan Bidyut Bangladesh Limited (NBBL), a 1000 psig x 7 km gas pipeline is being constructed at Bhola, Borhanuddin to supply gas to the 220 MW Combined Cycle (Dual Fuel) Power Plant by Sundarban Gas Company Limited (SGCL). However, due to Corona situation delay, 60% progress in field level activities, 90% progress in RMS construction and 90% progress in control building construction have been achieved till date. Under the supervision of NBBL and BPDB, COD of the main power plant was completed from 01/08/2021 to 06/08/2021. At present, gas is being supplied through temporary RMS and temporary pipelines at an average rate of 36 MMSCFD per day.

On the other hand, North West Power Generation Co. Ltd. (NWPGL) has constructed and commissioned a pipeline under the supervision of SGCL to supply gas to Khulna 225 MW Combined Cycle Power Plant at Khalishpur in Khulna Gas Distribution Area. Khulna 225 MW CCPP will require gas at the rate of 35 MMcfd from March-2023, subject to the availability of sufficient gas after the construction of the described gas infrastructure. In addition, the issue of signing a Gas Supply Agreement (GSA) between the company and NWPGL for supplying gas to the said power plant is under consideration.

For supplying gas to Kushtia BSCIC, a tender for the work entitled “Construction of a 20 mmscfd Capacity DRS Along With 10”Ø x 300 psig x 172 Meter Hook-up Line and Associated Civil Works at Battoil, Kushtia” was invited on e-GP on 02/01/2022 for constructing DRS on the land acquired by this Company at Kushtia. At own financing of SGCL, gas commissioning was done on 19/06/2022.

An agreement was signed on 28/11/2019 between NWPGL and the foreign contractor Shanghai Electric and Ansaldo Energia for construction of proposed Rupsa 800 MW Combined Cycle Power Plant and RMS. Besides, a contract was also signed with M/S Valvitalia SpA-Systems Division as the 1st Sub-contractor and M/S Sunnex Limited as the 2nd Sub-contractor for the construction of the RMS engaged by the foreign contractor.

A proper scrutiny has been done for the technical specification, estimation, preparation of tender documents, tender evaluation and supervision of construction work for the RMS to supply gas at Khulna 330 MW Dual Fuel Combined Cycle Power Plant which is under construction by BPDB. However, tender was invited for the construction of a RMS and an interconnecting pipeline from off-take of NWPGL’s 225 MW CCPP RMS in Khulna to the inlet of that proposed RMS by BPDB. Tender evaluation work is currently underway.



North-West Power Generation Company Limited’s 410 MW CCPP RMS, Bheramara, Kushtia under SGCL

During the FY 2021-22, the company earned a total revenue of Tk. 5525.855 million out of which TK. 4946.341 million from sales of 1033.874 MMCM gas and rest TK. 579.513 million from other operation income in this year. The company made total expenditure Tk. 4648.260 million, out of which Tk. 4398.535 million was spent to purchase gas and the rest Tk. 249.725 million was spent to meet the cost of gas distribution. After Considering other non-operating income, income from bank interest, interest expense for loan, provision for labor participation fund etc. Net profit before tax and after tax for the FY 2021-22 were Tk. 1026.439 million and 743.951 million respectively.



Rupantarita Prakritik Gas Company Limited (RPGCL)

An entity named ‘Compressed Natural Gas Company Ltd’ was formed on 01 January 1987 with a view to ensuring multi-dimensional use of natural gas—which is a valuable resource of the country by resorting to alternate sources of fuel for preventing air pollution, saving foreign exchange and reducing import of fuel from abroad. Later, due to expansion of its activities, the name of the Company was changed to ‘Rupantarita Prakritik Gas Company Limited (RPGCL)’ on 09 February 1991.



Ship to Ship (STS) LNG Transfer Operation

Encouraging people to use CNG (Compressed Natural Gas) as a fuel in vehicles for environmental improvement, implementation of CNG fuel-based transport infrastructure in Bangladesh, supervision, commercial operation, expansion, processing of NGL-Condensate from gas fields in Sylhet to produce LPG (Liquefied Petroleum Gas), production and marketing of petrol and diesel, Condensate Handling at the Ashuganj Condensate Handling Installation (ACHIS) and LNG (Liquefied Natural Gas) activities have been entrusted to this company.

Under the LNG division of RPGCL, LNG related Terminal Development, LNG Import, Re-gasification and RLNG Supply activities are being conducted(through the National Gas Grid). Under the Operation Division, Condensate Handling activities are being conducted at the Company’s ACHIS. CNG related services are being provided under the CNG division in Dhaka including Conversion of Fuel System of the Vehicle to CNG System, CNG Cylinder Retest and CNG Supply from Refueling Stations. Apart from that, CNG Filling Stations and Conversion Workshops set up across the country are being approved and monitored by the CNG Division.

In order to continue the ongoing economic development of the country the government has decided to import LNG to meet the existing and the growing gas demand as well as to ensure energy security. Under the supervision of Petrobangla, RPGCL has taken measures to accomplish all necessary functions relating to LNG in the country including installation of floating and Land-Based LNG Terminals as per the instruction of the Government to achieve for fulfilling the targets of SDGs 2030, Vision 2021 and Vision 2041. As per the Gas Sector Master Plan-2017 (Scenario-C), forecasted demand for natural gas in the country in the fiscal year 2025-26 and 2030-31 would be about 5257 and 6228 MMSCFD respectively. So, in the context of uncertainty of gas from domestic source as per gas demand the import of LNG is indispensable.

In materializing the Government's vision of making a digital Bangladesh, special emphasis is given on putting in place an effective e-GIF (e-Governance Inter-operability Framework) which covers e-tendering, e-Nothi, online system of receiving and redressing grievances, and so on. Accordingly, the Company has been making procurements through e-tendering since December, 2016 using the Government's e-GP portal (e-Government Procurement). At present, most of the procurements are being made through e-tendering.

E-governance and Innovation practices are of immense importance in strengthening good governance enhancing the skills of Company's employees. So E-governance and Innovation practices are given emphasis for innovation and use of information and communication technology to speed up and simplify the process of citizen service delivery.

In FY 2021-22, revenue earnings of the company decreased from those of the preceding Fiscal. During this Fiscal, the company earned Tk. 6,511.73 lakh as revenue before payment of VAT from sales of CNG, LPG, MS, and other heads. The net profit of the company for the Fiscal year 2021-22 amounts to Tk. 2,469.10 lakh and made payment of Tk. 2,199.57 lakh to the National Exchequer.



Summit LNG Terminal at Moheshkhali Off-shore Area.



Barapukuria Coal Mining Company Limited (BCMCL)

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

To ensure proper implementation of the project, Barapukuria Coal Mining Company Limited (BCMCL) was established on August 4, 1998. For maintaining uninterrupted production of coal from the mine, a Management, Production and Maintenance Contract was signed with the Consortium of Xuzhou Coal Mining Group 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 expected to be completed by the extended intended completion date of 29 December 2021. The CEOMAW-2021 contract for a period of 6 years was signed on 30 December, 2021 and came into effect on 30 December, 2021 and will continue up to 29 December, 2027 having the production target of 4.50 million metric tons. Total 0.718 million ton coal has been extracted against 4.50 million metric tons in this contract till 31st December 2022, whereas 550.0 m rock roadway has been developed at the northern mining area against target of 5,800 m.

Total 4.88 lakh tonnes of coal has been extracted in the fiscal year 2021-22 and all extracted coal has been sold to the Barapukuria coal-based thermal power plant. For the sake of mine safety, coal is being extracted on a limited scale from the faces of the third slice in the LTCC system. 4.30 lac ton of coal extracted from 1310 face and extraction has been completed. Now coal extraction from 1306 face is continuing. On the other hand, the development work of 1113 face is continuing and 1500m roadway development has been completed. After completion of 1306 face coal extraction from 1113 face extraction will be started. To increase the discharge of underground water 4 pipe shafts has been constructed from surface to underground and about 2600cum capacity of water treatment plant has been constructed for the treatment of underground discharged water. Beside these, 2 electric substations, 2 pump houses and 2 water sumps has been constructed in different level of underground. To continuing the uninterrupted coal production three dedicated power lines has been connected with the surface electric substation and increasing the capacity of generator 3x3.88 MW diesel generators has been installed. Total 19.02 MW diesel generators are ready in case of PDB’s power outage.

In the FY 2021-2022, total Coal Production was achieved 4,88,676.04 Metric tons. During the FY 2021-2022, the company earned TK.6,530.33 million from sale of coal and TK. 838.74 from other sources comprising a total amount of Tk.7,369.07 million. During this period Tk. 5,924.36 million was spent as Cost of operation and expenditure against other heads. In this fiscal year, the net profit stood at TK. 807.67 million following deduction of TK. 637.04 million provisions for income tax, which was TK. 566.28 million in the previous fiscal year. During the FY 2021-2022, the company deposited TK. 1,570.66 million to the government exchequer.

Due to the extraction of coal by underground methods, the land in the mining area was degraded, creating two lakes of 109 and 95 acres (depths of 8.0 and 4.5 meters respectively). In order to determine the utility of setting up floating solar power plants in these lakes, a feasibility study was carried out by SREDA in collaboration with ADB, where it is possible to set up a floating solar power plant with a capacity of 45.9 MW. The decision of the 335th board meeting of the company held on April 07, 2022 on the establishment of a floating solar power plant in the water body (lake) caused by the ground degradation in the mining area of Barapukuria Coal Mining Company Limited (BCMCL) was sent to the Energy and Mineral Resources Department through Petrobangla for approval. When the Energy



Underground Pump House at (-260) m level of BCMCL

and Mineral Resources Division sent a summary of the establishment of the floating solar power plant to the Honorable Prime Minister's Office for in-principle approval, instructions were given to send a proposal with information about who/who will buy the electricity produced by it and the clear opinion of the Power Department. A letter was sent to the Power Division on 23 June, 2022 from the Department of Energy and Mineral Resources requesting to give this opinion. In the wake of the letter, the PDB sent its opinion to the Power Division on June 30, 2022, when asked for its opinion from the Power Division. Afterward, on 31st October 2022 BCMCL sent a letter to

Petrobangla in order to take necessary action to approve permission from the ministry of land for using land (acquired zone of BCMCL) on behalf of BPDB. In addition to this on 18-12-2022 BPDB requested BCMCL to prepare a Draft LLA (Land Lease Agreement). Upon the request of BPDB, on 27-12-2022 BCMCL formed a committee in order to prepare the Draft LLA. Currently, BCMCL is working on Draft LLA and waiting for the approval ministry of land. After getting approval from the land ministry, BCMCL will work on the next step.

Geological Survey of Bangladesh (GSB) found a large amount of iron ore rich rock at a depth of 426 to 548 meters in Alihat area under Hakimpur upazila of Dinajpur district. BCMCL was entrusted by the higher authority to conduct feasibility study of Alihat Iron Ore (Ore) field discovered by Geological Survey of Bangladesh (GSB). Accordingly, the study project entitled "Preliminary Study for Development of Alihat Iron Ore Deposit at Hakimpur, Dinajpur, Bangladesh" was accepted by BCMCL.

The Company's Corporate Social Responsibility (CSR) activities

As a CSR activities of BCMC 20 institutions (schools, colleges, universities, madrasas, mosques, temples and other institutions) are given financial grant and 09 persons are given financial grant to meet medical expenses; During covid-19 period financial assistance has been provided to Bangladeshi miners working under XMC-CMC consortium for COVID-19 sample testing and quarantine; Financial incentives are given to 250 outsourcing manpower who are working inside the mining area during the corona period July 2021 to December 2022 for 18 months; A total of 1,310 Bangladeshi miners working under XMC-CMC consortium are provided as a one-time annual grant of Tk 8,000.00 per person for improving the quality of life and financial incentives has been given to 250 outsourcing manpower 7,000.00 taka each in the month of December for working during the obstacles of corona period and during the 4th agreement of 72 months duration, Bangladeshi miners working under XMC-CMC consortium are provided financial assistance of Tk. 1,500.00 each per month and financial assistance of Tk 3,000.00 per month is being provided to the injured workers and Tk 4,000.00 per month to the families of the deceased workers.



Maddhapara Granite Mining Company Limited (MGMCL)

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 2021-22, a total of 963,628.08 metric tons of granite was extracted from the mine and 10,96,244.00 metric tons was sold.

The Geological Survey of Bangladesh (GSB) discovered the deposits of hard rock at a depth of 136 meters 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 the 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 of Maddhapara Mine 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. Maddhapara Mine has a production capacity of 1.65 million metric tons of granite per year is set for partial fulfilment of the country's demand. In order to continue the full range of target production (5,500 metric tons/day) from the Maddhapara Granite Mine and development of underground roadways and stopes, a contract was signed between the Maddhapara Granite Mining Company Limited (MGMCL) and the Germania-Trest Consortium (GTC) on 2 September, 2013 for management and operation of the mine having contract price of US\$ 171.86 million for six year. After the expiration of the contract period, a side letter agreement was signed between MGMCL and GTC on 29 July, 2020. According to the side letter agreement, the contractor will develop 2 new stopes with 1.10 million metric tons of granite rock production and will hand over 1.18 million metric tons of granite rock reserves in the underground stopes of MGMCL at the end of the extended one year contract period. A new EPC contract was signed between MGMCL and GTC on 28 September 2021 for management and operation of the mine having contract price of US\$ 118.60 million (foreign currency) and Tk. 2,667.47 million (local currency). According to the contract, the contractor will develop at least 14 new stopes and produce 8.86 million metric tons of granite rock over a period of 6 years.

In FY 2021-22, a total of 963,728.08 metric tons of granite was extracted and 10,15,773.00 metric tons were sold. The company earned Tk. 2,374.63 million from the sale of granite and made a net profit of Tk. 182.55 million and made a payment of Tk. 343.33 million to the national exchequer.

From July to December, 2022, a total of 331,135.68 metric tons of granite was produced and 113,506.00 metric tons was sold and the company earned Tk. 300.95 million during this time. Mentionable, since inception of the company, a total of 8.25 million metric tons of granite have been produced as of 31 December, 2022.

At present, the annual demand of stone in the country is around 19 million metric tons. Most of the demand is met by the stone imported from abroad. While 1.63 million metric ton of stone is being produced from the mine. 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 feasibility study project "Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine" was completed in August 2019. Accordingly to the feasibility study report it is possible to develop a new mine with a production capacity of 3.30 million metric tons per year/ 11000 metric tons per day by taking a new project in the study area of 2.25 sq. km. A video including drone footage important information of the proposed new mine is prepared to be presented before the Hon'ble Prime Minister very soon.

Development Programmes for the Fiscal Year 2021-22

The Annual Development Programme of Petrobangla for the fiscal year 2021-22 had a total allocation of Tk. 9446.2 million, which includes Tk. 4946.8 million as project aid. The programme consists of 08 projects of which 05 are foreign-aided and 03 is GoB funded. In addition, there are 13 projects financed by the Corporation/Companies itself (Self Financing) involving total allocation of Tk. 1338.1 million. Furthermore, there are 11 projects under Gas Development Fund (GDF) in the same fiscal year with a total allocation of Tk. 3391.2 million. List of ongoing projects stating estimated total project cost, execution period and source of finance are as follows :

Ongoing Projects (Foreign Aided and GoB) : FY 2021-22 (Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost (PA)	Development Partners
1.	Natural Gas Efficiency Project [Installation of Gas Compressors at Titas (Location-C) & Narsingdi Gas Fields]	Jul '14 - Jun '22	BGFCL	7250.0 (6387.0)	JICA
2.	Dhanua-Elenga and West Bank of Bangabandhu Bridge-Nalka Gas Transmission Pipeline	Jul '14 - Jun '22	GTCL	8285.1 (4241.1)	JICA
3.	Installation of Prepaid Gas Meter for TGTDCCL	Jan '15 - Dec '22	TGTDCCL	7538.4 (6510.0)	JICA
4.	Installation of Wellhead Compressor at Location-A of Titas Gas Field	Jul '16 - Dec '23	BGFCL	7167.3 (6330.0)	ADB & AIIB
5.	Construction of Chittagong-Feni-Bakhrabad Gas Transmission Parallel Pipeline Project	Jul '16 - Dec '21	GTCL	24794.1 (7348.9)	ADB & AIIB
Sub-Total (foreign-aided)				55034.9 (30817.0)	

GoB funded: FY 2021-22

(Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1.	Construction of Bogura-Rangpur-Saidpur Gas Transmission Pipeline Project	Oct '18 - Jun '23	GTCL	13785.5
2.	Bakhrabad - Meghnaghat - Haripur Gas Transmission Pipeline Project	Jul '21 - Jun '24	GTCL	13046.2
3.	Rangpur, Nilphamari, Pirganj & Their Adjoining Areas Gas Distribution Network Project	Jul '21 - Dec '23	PGCL	2581.1
Sub Total (GoB Funded) :				29412.8

Ongoing Projects (Self Financing) : FY 2021-22

(Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1.	Techno-Economic Feasibility Study, Engineering Services and Tender Management Services for Construction of a Land Based LNG Terminal at Matarbari Cox's Bazar	Sep '20 - Jun '24	PB	437.0
2.	Consultancy Services for Implementing the Automation of Gas Transmission and Distribution Pipeline Networks under different Companies of Petrobangla	Aug '20 - Dec '22	PB	124.4
3.	3D Seismic Survey at Beanibazar under Sylhet Gas Fields Limited	Oct'20 - Dec '23	SGFL	463.3
4.	Installation of 50000 Pre-paid Gas Meter at JGTDSL Franchise Area	Jan'21 - Dec '23	JGTDSL	1185.5
5.	Installation of Wellhead Compressors at Location-E & G of Titas Gas Field	Mar'21 - Jun '25	BGFCL	4955.0
6.	Workover of Well No. Sylhet-8, Beanibazar-1 & Kailashtilla-7	Jan'21 - Jun '23	SGFL	1633.2
7.	Drilling of well No. Kailashtilla-8 (Explotory Well)	Jan'21 - Jun '23	SGFL	1502.7
8.	Installation of Prepaid Gas Meter for KGDCL	Feb '21 - Jun '23	KGDCL	2416.1

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
9.	Bijoy 10, 11, 12 IDECO Rig Maintenance, IPS Rig Upgradation & Rig Supporting Equipment Replacement Project	Jul '21 - Dec '23	BAPEX	1995.2
10	Fouzderhat-Sitakunda-Mirsarai Gas Distribution Network Upgradation Project	Jul '21-Oct '23	KGDCL	2107.2
11	Procurement of an individual Legal Consultant for LNG Terminal Development, LNG Import and other LNG Activities	Jul '21 - Sep '26	RPGCL	59.1
12	Bangabandhu Bridge (Railway Section) Gas Transmission Pipeline Project	Jul '21 - Jun '25	GTCL	2973.0
13	Installation and Modification of Gas Stations at Off-Transmission Points of GTCL	Jul '21 - Jun '24	GTCL	6674.2
Sub Total (Self Financed)				26526.8

Ongoing Projects (Under GDF) : FY 2021-22

(Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1.	Drilling of well no. Sylhet-9 (Appraisal/ Development well)	Dec '13 - Dec '21	SGFL	1712.7
2.	RUPKALPO-2 Drilling Project : 2 Exploratory Wells (Semutang South-1 & Jakiganj -1)	Jul '16 - Sep '21	BAPEX	2140.0
3.	Workover of 7 Wells at Titas, Hobigonj, Narsingdi & Bakhrabad Gas Field	Jan '17- Jun '22	BGFCL	3443.5
4.	Procurement & Installation of 60 MMSCFD Process Plant for Shabazpur Gas Field	Jul '20 - Dec '22	BAPEX	960.3
5.	Drilling of Two Exploratory wells "Tabgi-1 & Illisha-1" and One Appraisal cum Development Well "Bhola North-2"	Jan '21 - Jun '23	BAPEX	6946.3
6.	Shariatpur-1 Exploratory Well Drilling Project	Jul '21 - Jun '23	BAPEX	959.0

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
7	3D Seismic Survey at Relinquished Area of Acreage Block 13 & 14	Jul '21 - Jun '24	SGFL	2819.6
8	2D Seismic Survey Over Exploration Block 15 & 22	Jul '21 - Jun '24	BAPEX	1483.8
9	Procurement & Installation of Wellhead Compressors at Srikail Gas Field	Jul '21 - Dec '23	BAPEX	1924.0
10	Drilling of Well No. Sylhet-10 (Exploratory Well)	Oct '21 - Dec '23	SGFL	2021.4
11	Gas Gathering Pipeline Construction from Well No. Rashidpur-9 to Process Plant	Jan '22 - Jun '23	SGFL	667.2
Sub-Total (GDF)				25077.8
Grand Total (Foreign Aided+ GoB+Self Financing+ GDF)				136052.3

Source : Planning & Monitoring Division, Petrobangla.



Prize-giving Ceremony of Petrobangla Annual Sports Competition 2022.

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 impressive economic growth for the country, it is possible to improve the living standard of a huge population through proper utilization of the limited resources. It may be mentioned here that the present energy crisis has become acute due to the absence of proper initiatives for the last 7 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 the power sector. To overcome the stagnant situation, the present Government has been putting its best efforts for ensuring energy supply to accelerate 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 with the capacity of 500 MMscfd each have been installed at Moheshkhali for regasifying imported LNG and commenced transmission to the national gas grid on 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, the following strategies have been taken up for the oil, natural gas and mineral development under the Petrobangla umbrella:

- Adoption of a 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 the acquisition of new rigs and their ancillaries;
- Importing liquefied natural gas (LNG) to compensate for increasing gas demand;
- Support the Government in finalizing the National Energy Policy and Coal Policy to create opportunity for using energy from multiple sources;
- Increasing the financial capacity of BAPEX by forming a gas development fund; and
- Making efforts to ensure proper pricing of gas to conserve energy and improve the financial operations of the gas sector.

Sector wise gas demand forecast (FY 2022-23 to 2026-27)

Unit: MMscfd

Sector	2022-23	2023-24	2024-25	2025-26	2026-27
Power	1,443	1,446	1,454	1,513	1601
Captive Power	663	674	685	713	735
Fertilizer	263	267	269	269	337
Industry	771	824	873	1,006	1132
Commercial & Tea	25	25	25	25	25
Domestic	361	354	347	341	335
CNG	124	124	124	124	124
Total	3,650	3,715	3,777	3,990	4228

Source : Production & Marketing Division, Petrobangla

Plan for Production Augmentation

National Exploration and Production (E&P) Companies (BAPEX, BGFL & SGFL) and IOCs have planned a gas production augmentation program. This program includes exploration drilling, development drilling and work-over on the onshore areas of Bangladesh. It is expected that after successful completion, the program will yield an additional amount of gas of 881 MMscfd (State owned fields 681 MMscfd and IOCS 200 MMscfd) through work-over and new drilling by the year 2026. Following table shows the summary of the activities for production augmentation

Table: Year-wise Drilling and Workover Programmes

FY	Exploration wells	Development wells	Work-over Wells	Total Wells
2021-22	0	2	14	16
2022-23	4	1	5	10
2023-24	4	8	11	23
2024-25	10	8	8	26
2025-26	4	5	2	11
Total	22	24	40	86

Source: BGFL, SGFL, BAPEX and PSC Directorate, Petrobangla



Petrobangla pays homage to the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, on his 102nd birthday and the National Children's Day, 2022 at GTCL.

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.				N2	CO2
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	97900	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	Kailashilla	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	
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, 2022)

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	*651.28 **482.52	302.99	392.18	991.08	-	356.80	925.00	975.00
01.06.2022	142.15	453.07	***339.24 ****333.57 *****337.82	754.36	337.82	453.07	991.09	-	509.70	990.00	1080.00

*Hotel & restaurant, **Small & cottage industry, ***Large Industry, ****Medium Industry, *****Small Industry
 Source : Accounts Division, Petrobangla.

Gas Fields in Production and Supply Scenario

(As in December, 2022)

Gas in MMscfd, Condensate in BBL per day

Company	Gas Field	Total Wells (No.)	No of Producing Wells	Production Capacity (MMscfd)	Production	
					Gas	Condensate
1. BGFCL	Titas	27	22	408	393	320
	Bakhrabad	10	6	35	34	44
	Habiganj	11	7	153	147	7
	Narsingdi	2	2	27	25	37
	Meghna	1	1	7	3	5
	Sub-Total	51	38	630	603	413
2. SGFL	Sylhet	8	3	7	5	21
	Kailashtila #1 (Silicagel)	4	3	29	4	18
	Kailashtila #2 (MSTE)	3			28	384
	Rashidpur	11	5	44	44	38
	Beanibazar	2	2	7	13	215
	Sub-Total	28	13	87	94	676
3. BAPEX	Saldanodi	4	3	2	4	2
	Fenchuganj	5	2	17	13	4
	Shahbazpur	5	5	85	71	8
	Semutung	6	1	1	1	0
	Sundalpur	2	1	8	8	0
	Srikail	4	4	38	40	172
	Begumganj	3	1	9	8	2
	Rupganj	1	-	-	-	-
	Sub-Total	30	17	160	145	188
Sub-Total (1+2+3)	109	68	877	842	1277	
4. IOCs						
CHEVRON	Jalalabad	9	6	197	179	665
	Moulvibazar	9	2	14	16	11
	Bibiyana	26	26	1170	1132	6148
TULLOW	Bangora	6	5	55	40	121
Sub-Total	50	39	1436	1367	6944	
	Indigenous	159	107	2313	2209	8221
5. RPGCL	R-LNG	0	0	1000	468	0
	Sub-Total	0	0	1000	468	0
Grand Total (1+2+3+4+5):		159	107	3313	2677	8221

Source : Production & Marketing Division, Petrobangla.

Growth Trajectory of Customer

Year	TGTDCL	BGDCL	JGTDSL	PGCL	KGDCL	SGCL	TOTAL
Year	TGTDCL	BGDCL	JGTDSL	PGCL	KGDCL	SGCL	TOTAL
1989-90	330698	59937	32355	-	-	-	422990
1990-91	346473	68129	34968	-	-	-	449570
1991-92	364403	75028	37844	-	-	-	477275
1992-93	386226	87741	40556	-	-	-	514523
1993-94	414833	100402	43247	-	-	-	558482
1994-95	453922	112118	47285	-	-	-	613325
1995-96	493261	124159	51819	-	-	-	669239
1996-97	541767	140443	56918	-	-	-	739128
1997-98	588231	156294	61886	-	-	-	806411
1998-99	636415	175525	65966	-	-	-	877906
1999-00	684401	195374	70428	100	-	-	950203
2000-01	769000	214000	67000	1000	-	-	1051000
2001-02	833979	243887	72555	1558	-	-	1151979
2002-03	907946	271526	76923	3957	-	-	1259798
2003-04	979195	298060	83997	5714	-	-	1366412
2004-05	1041732	325089	90506	7684	-	-	1465013
2005-06	1110175	355958	98511	19254	-	-	1583898
2006-07	1239900	395508	107467	28898	-	-	1771773
2007-08	1350187	433887	117142	38607	-	-	1939823
2008-09	1458743	466355	127053	49522	-	-	2101673
2009-10	1556560	510954	137523	58405	-	-	2263442
2010-11	1563290	190596	149725	59086	369703	-	2332400
2011-12	1563307	206213	162615	59171	369703	-	2361009
2012-13	1565801	207938	177974	59725	369703	-	2381141
2013-14	1722712	318435	192943	96492	472602	-	2803184
2014-15	1897316	399540	209489	119483	533273	-	3159101
2015-16	2023005	489519	223784	128893	602074	3082	3470357
2016-17	2734546	492678	223715	128589	602074	3073	4184675
2017-18	2777343	491647	223668	128290	602085	4370	4227403
2018-19	2865907	491453	223673	128220	602189	6947	4318389
2019-20	2874848	490824	223663	128265	602245	8914	4328759
2020-21	2875813	490568	221459	126869	602338	2386	4319433
2021-22	2877609	490603	221461	126354	602375	2387	4320789
Up to Dec.'22	2878224	490505	221461	126348	602378	2388	4321304

Source : Production & Marketing Division, Petrobangla.

Natural Gas Reserve of Bangladesh

(As of 31 December, 2022)

Figure in BCF

SL. No.	Fields	Year of Discovery	Reserve Estimated By		GIIP	Recoverable Reserve			Cumulative Production December'2022	Remaining Reserve w.r.t 2P (1 st January, 2023)
			Company	Year		Proved (1P)	Proved + Probable (2P)	Proved + Probable + Possible (3P)		
A. Producing										
1	Titas	1962	RPS Energy	2009	8148.9	5384.0	6367.00	6517.0	5217.90	1149.10
2	Habiganj	1963	RPS Energy	2009	3981.0	2787.0	2787.00	3096.0	2689.15	97.85
3	Bakhrabad	1969	RPS Energy	2009	1701.0	1052.9	1231.52	1339.0	880.82	350.71
4	Kailashtilla	1962	RPS Energy	2009	3610.0	2390.0	2760.00	2760.0	757.97	2002.03
5	Rashidpur	1960	RPS Energy	2009	3650.0	1060.0	2433.00	3113.0	691.55	1741.45
6	Sylhet/Haripur	1955	RPS Energy	2009	370.0	256.5	318.90	332.0	221.86	97.04
7	Meghna	1990	Gustavson	2010	122.1	101.0	101.00	101.0	81.39	19.61
8	Narshingdi	1990	RPS Energy	2009	369.0	218.0	276.80	299.0	239.62	37.18
9	Beani Bazar	1981	RPS Energy	2009	230.7	150.0	203.00	203.0	113.92	89.08
10	Fenchuganj	1988	RPS Energy	2009	553.0	229.0	381.00	498.0	171.84	209.16
11	Shaldanadi	1996	RPS Energy	2009	379.9	79.0	279.00	327.0	96.39	182.61
12	Shahbazpur**	1995	Petrobangla	2011	918.1	-	642.68	488.0	132.83	509.85
13	Semutang	1969	RPS Energy	2009	653.8	151.0	317.70	375.1	14.18	303.52
14	Sundalpur Shahzadpur	2011	BAPEX	2012	62.2	25.0	35.10	43.5	22.94	12.16
15	Srikail	2012	BAPEX	2012	240.0	96.0	161.00	161.0	132.40	28.60
16	Begumganj	1977	BAPEX	2014	100.0	14.0	70.00	-	11.25	58.75
17	Jalalabad*	1989	D & M	1999	1567.0	1566.95	1566.95	-	1566.95	-
18	Moulavi Bazar	1997	Unocal	2003	541.0	405.0	428.00	812.0	344.44	83.56
19	Bibiyana	1998	D & M	2008	7427.7	4415.0	5755.43	7084.0	5421.99	333.44
20	Bangura	2004	Tullow	2011	1198.0	379.0	714.00	941.0	532.49	181.508
Sub-total A:					35823.4	20759.4	26829.08	28489.6	19341.87	7487.21
B. Non-Producing										
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
23	Zakiganj	2021	BAPEX	2021	75.9	-	53.13	-	-	53.13
Sub-total B:					762.8	45.5	534.0	45.5	0.00	533.95
C. Production Suspended										
24	Rupganj	2014	BAPEX	2014	48.0	-	33.60	-	0.68	32.92
25	Chattak	1959	HCU	2000	1039.0	265.0	474.00	727.0	26.46	447.54
26	Kamta	1981	Niko/Bapex	2000	71.8	50.3	50.30	50.3	21.1	29.20
27	Feni	1981	Niko/Bapex	2000	185.2	125.0	125.00	175.0	62.4	62.60
28	Sangu***	1996	Cairn/Shell	2010	899.6	544.4	577.76	638.7	487.91	89.85
Sub-total C:					2243.6	984.7	1260.66	1591.0	598.5	662.11
Grand Total (A+B+C) in BCF					38829.8	21789.6	28623.70	30126.1	19940.42	8683.27
Grand Total (A+B+C) in TCF					38.83	21.79	28.62	30.13	19.94	8.68

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

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

*** Production from Sangu gas field suspended since 1st 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)	
GTCL	1. North – South Gas Transmission Pipeline	24	175.00	1000	400	
	2. Ashuganj-Bakhrabad Gas Transmission Pipeline	30	58.50	1000	400	
	Paschimanchal Gas Transmission Project					
	3.	(a) Bangabandhu Bridge Section	30	9.00	1000	450
		(b) Elenga-Nalka	24	28.50	1000	250
		(c) Nalka-Baghabari	20	35.50	1000	250
	4.	BeaniBazar-Kailashtila Gas Transmission Pipeline	20	18.00	1000	200
	5.	Habiganj-Ashuganj Gas Transmission Pipeline	30	54.00	1000	500
	6.	Rashidpur-Habiganj Gas Transmission Pipeline (2 nd Phase)	30	28.00	1000	500
	Nalka-Bogura Gas Transmission Pipeline:					
	7.	(a) Nalka - Hatikumrul	30	6.00	1000	400
		(b) Hatikumrul - Bogura	20	54.00	1000	250
	8.	Monohordi-Dhanua & Elenga-Bangabandhu Bridge East Gas Transmission Pipeline	30	51.00	1000	400
	9.	Bakhrabad – Demra Gas Transmission Pipeline	20	68.72	960	250
	10.	Bakhrabad – Chattogram Gas Transmission Pipeline	24	174.65	960	300
	11.	Ashuganj – Elenga Gas Transmission Pipeline	24	124.00	1000	350
	12.	Ashuganj - VS3 Gas Transmission Pipeline	20	2.00	1000	200
	13.	Ashuganj-Monohordi Gas Transmission Pipeline	30	37.00	1000	450
	14.	Dhaka Clean Fuel Project (GTCL Part)	20	60.00	1000	280
	15.	Bonpara-Rajshahi Gas Transmission Pipeline	12	53.00	1000	150
	16.	Hatikumrul-Ishardi-Bheramara Gas Transmission Pipeline	30	84.00	1000	400
	17.	Titas Gas Field (Location-G) to AB Pipeline Gas Transmission Pipeline	24	8.00	1000	250
	18.	Srikail-AB Gas Transmission Pipeline	20	1.50	1000	250
	19.	Bibiyana-Dhanua Gas Transmission Pipeline	36	137.00	1000	650
	20.	Bakhrabad-Siddhirganj Gas Transmission Pipeline	30	60.00	1000	450
	21.	Titas Gas Field (Location- C, B & A) Titas-AB Interconnection Pipeline	10	7.70	1000	150
22.	Gas Transmission Capacity Expansion-Ashuganj to Bakhrabad Gas Transmission Pipeline	30	61.00	1000	450	
23.	Bheramara-Khulna Gas Transmission Pipeline	20	163.03	1000	250	
24.	Titas Gas Field Well 23 & 24 (Sharail) to Khatihata & Well 25 & 26 (Malihata) to Khatihata Gas Transmission Pipeline	20	3.30	1000	250	
25.	Moheshkhali-Anwara Gas Transmission Pipeline	30	91.00	1000	500	
26.	Anwara-Fouzdarhat Gas Transmission Pipeline	42	30.00	1000	1200	

Company	Name of the Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)
	27. Dhanua-Elenga-Bangabandhu Bridge – Nalka Gas Transmission Pipeline	30	6700	1000	400
	28. Moheshkhali Zero Point (Kaladiar Char)-CTMS Gas Transmission Pipeline	42	7.00	1000	1200
	29. Moheshkhali-Anowara Parallel Gas Transmission Pipeline	42	79.00	1000	1200
	30. Chittagong-Feni-Bakhrabad Gas Transmission Pipeline	36	181.00	1000	800
TGTDC	31. Titas – Dhaka	14	81.80	1000	175
	32. Titas – Narshingdi	16	46.31	1000	265
	33. Narshingdi-Joydevpur	14	37.51	1000	220
	34. Narshingdi-Ghorasal	14	10.30	1000	220
	35. Habiganj-Ashuganj	12	57.75	1000	85
	36. Monohardi-Narshingdi	20	24.50	1000	300
	37. Monohardi – Kishorganj	4	35.00	1000	6
	38. Ashuganj V.S. #3-ZFCL	10	4.00	1000	95
	39. Elenga-Tarakandi	12	42.41	1000	80
	40. Dhonua – Mymensingh	12	56.70	1000	55
	41. Tarakandi-Jamalpur	8/6	21.00	1000	25
	42. Mymensingh – Netrokona	8/6	40.00	1000	60
	KGDCL	43. Chattogram Ring Main	24/20/16	57.00	350
44. KPM Spur		8	18.00	350	18
45. Chattogram – Rauzan		20	18.00	350	150
46. Semutang – Chattogram		10	56.00	150	10
47. Anowara CGS – KAFCO/CUFL		16	05.00	350	140
KGDCL	48. Anowara CGS – Shikalbaha	16	14.00	350	110
	49. MEZ CGS – B.R PowerGen	16	06.26	350	135
	50. MEZ CGS – Bashundhora	16	04.10	350	140
	51. Borotakia – MEZ CGS	16	09.00	1000	336
JGTDSL	52. Patibagh to Jalalpur	6	18	500	6.677
	53. Jalalpur to Sunamganj	4	13	500	3.256
	54. Kuchai to Chatak	6	39	500	8.057
	55. Kuchai to Chatak	8	42	1000	24.087
	56. Haripur to NGFF	8	43	500	8.867
	57. Devpur to Kumargaon	6	11	500	13.789
	58. Devpur to Kumargaon	8	11	1000	45.932
	59. Khadimnagar to Haripur	8	14	1000	40.616
	60. Kailashtila to Kuchai	8	13	500	22.120
	61. Kailashtila to Kuchai to Khadimnagar	10	19	1000	41.128
	62. Kailashtila-1 to Kailashtila-2	14	3.5	1000	107.334
63. Munsibazar North South Pipeline to Luyani	6	10	500	26.245	
64. Fenchuganj North South Pipeline to Shahjalal Fertilizer Factory	8	2	1000	362.714	

Company	Name of the Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)
	65. Bibiana to Aushkandi	6	5	1000	16.670
	66. Bibiana to Parkul	20	9.8	1000	154.922
	67. Shahjibazar TBS to 86 MW power plant	8	3	1000	42.240
	68. Shahjibazar to Srimangal	6	40	500	9.823
	69. Devpur to Lakkatura	6	7	1000	20.970
	70. Lakkatura to Bangabandhu Hi-Tech Park	12	23	300	35.290
	71. Pirojpur to Rashidpur	8	10	150	5.955
	72. Rashidpur to Tajpur	6	15	150	2.263
	73. Luiani to Jury	6	26	150	2.684
	74. Luiani to Rajnagar	6	10	150	4.000
	75. NGFF to Longla to Barolekha	4	73	150	0.794
	76. Srimangal to Moulvibazar	6	26	150	2.993
	77. Srimangal to Bhairabganj Bazar	6	12	500	14.620
	78. Aushkandi to Nabiganj	6	8.6	500	2.210
	79. Parkul to Srihatta Economic Zone	12	3.0	150	21.720
	80. Nasratpur to Habiganj	4	10	150	1.440
	81. Nasratpur to Habiganj	6	10	150	4.030
	82. Srimangal to Alinagar	6	25	150	2.990
PGCL	83. Baghabari-Ishwardi	8"	82.00	140	4.60
	84. Hatukumrul-Nalka	8"	5.60	140	7
	85. Khorkhori-Nawdapara-Mollapara-Court-Vodra (Ruet Campus)	8"	33.35	140	5.50



SASEC-2 Depository Funded Pipeline Construction (Major Road Crossing) Work at Nalka by PGCL.

Category-wise Annual Gas Sales

(FY 1990-91 to FY 2021-22)

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				
1990-91	172.8		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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		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	116.0	1077.7	*608.4	57.7	666.1	164.5	158.9	7.9	43.4	1.0	375.7	1041.8	18.3	1060.1
2019-20	882.6	203	1085.6	*607.5	54.6	662.1	155.7	132.7	6.7	37.2	0	386.9	994.4	91.2	1085.6
2020-21	889	215	1104	*594.8	64.7	659.5	181.8	134.2	6.0	36.1	0	358.0	1017.5	86.5	1104
2021-22	840	240	1080	*577.7	60.4	638.1	191	127.8	6.0	38.4	0	363.3	1001.3	78.7	1080
Up to Dec'22	414	85	499	*274.5	27.1	301.6	90.6	50.5	31	21.3	0	165.6	467.2	31.8	499

* Including captive power, UFG : Un-accounted for gas (system loss plus pilferage/system gain)

Source : Production & Marketing Division, and MIS Report (December, 2022), Petrobangla.

Payment to National Exchequer

Taka in Million

Year	SD+VAT	DSL	Income Tax	Dividend	CD/VAT	Royalty	Corporate Surplus Fund	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
2019-20	23253.9	6392.8	18655.2	8548.6	3210.7	714.2	-	60775.4
2020-21	373671.2	5971.0	7314.9	18235.1	34208.6	677.7	40000.0	143774.5
2021-22	48886.50	9153.1	23482.7	7095.10	453.6	852.20	-	89933.20

Source: Accounts Division, Petrobangla

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