

CHAPTER ELEVEN

TRANSPORT AND COMMUNICATION

Transport and communication system as an essential physical infrastructure plays an important role in socio-economic development of the country. According to Bangladesh Bureau of Statistics (BBS), the contribution of the transport and communication sector to GDP is 10.98 percent and the rate of growth is 6.88 percent during FY2018-19 at constant price. It is very much necessary to make a developed and efficient transport and communication system that will connect Bangladesh with international and regional road network as well as with other ICT networks. Considering this view, Padma Bridge, Metro-rail, Dhaka Elevated Express way and some other mega-projects are being implemented. The total length of road in the country is 21,569 km as of February 2019 of current fiscal year. To operate Railway as an environment-friendly, safe, affordable and dependable means of transport various development program has been undertaken and implemented. At present, total length of railway is 2,955.53 km. Several measures have already been undertaken for development and maintenance of navigability of different river routes, ensuring safe movement of water crafts, development of inland river ports, creating infrastructure facilities to carry container goods in inland waterways etc. About 92 percent international trade is happening through Chattogram seaport. Growth of container handling at Chattogram port is 14 percent. As national flagship carrier Biman Bangladesh Airlines Limited is conducting 7 national and 15 international flights in different routes. In FY2017-18, Biman has carried 25.88 lakh passengers and 30,970 tonnes of cargo. To modernise, develop and expand the country's telecommunication system, various measures have been undertaken by the government. The total number of mobile phone subscriber is 15.75 crore in January 2019. Bangladesh launched its first satellite 'Bangabondhu Sattelite-1' to the Space successfully on 12 May 2018. Keeping consistency with the targets of SDG declared by United Nations and 7th Five Year Plan, the government has undertaken various initiatives to expand information technology. Various development projects and programs are in progress to ensure the use and application of information and communication technology by increasing digital literacy at all walks of life, extend public service through IT-based activities and finally, build a modern and developed Bangladesh through the introduction of e-governance and e-commerce.

Transport and communication system is a vital physical infrastructure for the socio economic development of a country. According to Bangladesh Bureau of Statistics (BBS), the contribution of the transport and communication sector to GDP was 10.98 percent and the rate of growth was 6.88

percent during FY2018-19. In context of globalisation and the market economy involvement with regional and international transport international networking is crucial for Bangladesh. So it is very much important to continue the development of transport and communication sector to make an

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appropriate, developed and well-connected transport and communication system. In this context, for implementation of 7th Five Year Plan, Perspective Plan and keeping consistency with the targets of SDG-2030, the government has significantly increased development initiatives.

A. Roads Communication

Roads and Highways Department (RHD)

Under the management of Roads and Highways Department about 21,596 km highways of various types exists. Out of this highway network, 18 percent is National Highway, 20 percent is Regional Highway and remaining 62 percent is *Zila* roads. In addition, RHD has 4,404 bridges and 14,814

culverts under its control. Moreover, RHD has currently been operating about 96 ferry boats in 42 ferry Ghats and 118 Pontoons on its road network throughout the country. At present there is 417 km 4-lane national highways and several projects are implementing for development of 95.28 km 4-lane highways. It may be mentioned here that the length of road network under RHD did not increase during last couple of years. However, the quality of different important road segments has been significantly improved through carrying out development/improvement works of various standards as per requirement. The table 11.1 provides a ten year time series data on RHD road lengths since 2010.

Table 11.1: Various Categories of Roads under Roads and Highways Department

Year	National Highway	Regional Highway	Zilla Road	Total
2010	3478	4222	13248	20948
2011	3492	4268	13280	21040
2012	3538	4276	13458	21272
2013	3538	4278	13638	21454
2014	3538	4278	13638	21454
2015	3544	4278	13659	21481
2016	3813	4247	13242	21302
2017	3813	4247	13242	21302
2018	3813	4247	13242	21302
2019*	3906	4483	13207	21596

Source: Roads and Highways Department; Ministry of Road, Transport and Bridges.*Up to February 2019

In order to develop a modern transport and communication system, a total of 178 development projects have been included in the Revised Annual Development Program (RADP) of Roads and Highways Department for FY2018-19. Among them, 175 are investment projects and 3 are Technical Assistance projects. An amount of TK.16,473.62 crore is allocated for these development projects. Out of this, GoB

component is TK.13,124.93 crore and project aid is TK.3,348.69 crore. About 34.12 percent of total allocation is spent during FY2018-19 (Up to February 2019).

There are six projects under the RHD which will be implemented on PPP basis through participation of the public sector as well as private sector for the development of road network. Among these six projects,

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implementation of four important projects is ongoing.

- Upgrading of *Madanpur-Bhulta-Debogam-Joydevpur* to 4 Lane (Dhaka Bypass)
- Construction of *Dhaka-Chattogram* Expressway
- *Hatirjheel-Rampura-Banosree* Ideal School and College-*ShiekerJayga-Amulia-Demra* Highway (*Chattogrm Road Mour and Tarabo* Link Road).
- Improvement of *Gabtolli-Nabinagar* Highway to Expressway with provision of service lanes (22 km)

Other projects under PPP are:

- Improvement of *Dhaka-Mymensingh* Highway to Expressway on PPP basis with provision of service lane on both sides.
- Improvement of *Nabinagar-Manikganj* Highway.
- Improvement of *Hatikamrul-Natore-Rajshahi* Highway.
- Construction of Service Area beside *Dhaka-Tangail* Highway
- Construction of Dhaka Circular Road with provision of service lanes: 2nd phase Improve to 4 Lane Highway (*Abdullahpur-Dhour-Birulia-Gabtolli-Babubazar-Fatullah-Chashara* – *Signboard* (67 kilometer) and
- Construction of 136 kilometer *Chattogram-Cox's Bazar* Access Controlled Highway.

Implementation of New Policies in Road Sector

Modern and Competitive Road Transport Act, 2018, was recently published in the form of gazette on 8th October, 2018. This Act has replaced The Motor Vehicle Ordinance 1983. Procurement of Ferry Management Management Policy-2017 is being processed in order to ensure proper management of ferries and pontoons operated by the Roads and Highways Department. Apart from this, the target has been taken to update the existing Highway Act -1925 and Ferry Act-1885 simultaneously. In order to ensure timely and continuous funding for repair and maintenance of the road, the Road Maintenance Fund Board Act-2013 is approved. Under this act, formulation of laws is under process. The Bus Rapid Transit (BRT) Act-2016 is notable among the laws which are enacted recently.

Road Safety

A flawless road design is being implemented through identifying the accident black spots on the National Highways. The intensity of road accident has been reduced due to proper maintenance of road and straightening of road alignment. 'Improvement of Road Safety at Black Spots in National Highways' project has been implemented recently at a cost of Tk.1,68.05 crore for the treatment of 121 identified black spots as a preventive measure against road accident at the accident prone place on the national highways.

Important Projects Undertaken in FY2018-19 to Ensure Road Safety.

- To control overload by installing weigh bridge at critical place of traffic origin ‘Installation of Axle Load Control Station at the starting point of the important Highways under the Roads and Highways Department’ project under RHD with a cost of Tk.1,732.88 crore is approved
- To reduce the number of accidents at minimum level by installing sign and marking at 128 new locations a project named ‘Establishment of necessary sign and road marking on national and regional highways and development of dangerous risky corridor in the identified risk areas’ with a cost of TK.631.95 crore have been approved recently and
- To establish safe and sustainable highway system by RHD a project named ‘Construction of restroom with parking facilities for van drivers beside the 4 national highways, such as Dhaka-Chattogram highways, Dhaka-Syllhet highways, Dhaka-Rangpur highway and Dhaka-Khulna highway to create sustainable and safe highway system’ with a cost of TK.233.52 crore has been undertaken in FY2018-19.

A study project with a cost of TK.3.24 crore is running now to prepare appropriate design for 752 intersections on the highways. Later an investment project will be undertaken to construct the intersections as per the established design.

Local Government Engineering Department (LGED)

A long term Master Plan over a period of 2005-2025 has already been prepared for successful implementation of rural infrastructures and other programs by LGED aiming at balanced development across the country and is being implemented accordingly. From its inception till February 2019 of FY2018-19, LGED has constructed/reconstructed/rehabilitated 1,17,877 km roads at *upazila, union* and village level. On these roads it also constructed/reconstructed/rehabilitated bridges/culverts. Besides, LGED has developed 4,333 growth center/village markets, arboriculture 25,136 km roads and built 3,272 *Union Parishad Complex Bhaban*, 210 *upazila Complex Bhaban* and 9,220 cyclone center.

The table 11.2 depicts achievements in Transport Infrastructure under various development projects of LGED up to February 2019 of FY2018-19.

Table 11.2: Achievement in Transport Infrastructure Development under LGED

Component	Financial Year										Total (Cumulative Up to February 2019)
	Cumulative up to June 2010	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19*	
Earthen Road (km)	64691	-	-	-	-	-	-	-	-	-	64691
Paved Road (km)	69200	4614	4905	6639	6549	5990	4813	5200	5300	4663	117873
Bridge/Culvert (m)	1133166	38502	26415	27057	32707	24455	28500	29000	29500	9933	1379235

Source: LGED * Up to February 2019

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Since 2009, LGED removed water-logging from 3,14,466 hectares land along with the increasing water preservation capacity, irrigation facilities and irrigable areas by implementing 507 sub projects under small scale water resources development programs. By building 25 rubber dams on small to medium size perennial rivers, LGED has taken up a measure towards application of new technology and providing more eco-friendly irrigation supports to enhance the irrigation facility. Besides, under the department 28 projects are running at district, *upazila* and *pouroshava* level for urban infrastructure development. To liberate traffic jam of Dhaka City, construction of 8.70 km long flyover at a cost of Tk.1,218.89 crore has been completed under the project 'Construction of Flyover in Dhaka City *Mogbazar-Mouchak* (comprehensive)' and opened for vehicle transport.

Bangladesh Road Transport Authority (BRTA)

Bangladesh Road Transport Authority (BRTA) has been entrusted with the task of ensuring overall supervision, proper management and effective control with a view to bring about discipline in the road transport sector since its inception. At present the organisation is running its operation through its 57 district circle offices and 5 metro circle offices. Issuance of registration and fitness certificates of vehicles, route permit and driving license is the main responsibility of this organisation. BRTA is playing an important role in overall development of transport sector as well as

establishment of discipline in the sector.

Following measures have been taken to enhance standard of service, prevent environment pollution and reduce traffic jam:

- National Road Safety Action Plan, 2017-2020 has been formulated
- To reduce road accident and enhancing road safety consciousness, a total of 70,646 professional drivers have been provided training as of February 2019
- In FY2018-19, a total of 3,25,150 sets Retro Reflective Number Plates and radio Frequency Identification (RFID) tags have been produced and 2,42,440 sets of the same have been affixed to various vehicles
- As of February 2019 in FY2018-19, a total of 3,35,913 smart Card Driving License have been produced and distributed
- Digital Registration and Fitness Certificate have been introduced. In FY2018-19 (up to February 2019), a total of 92,095 Digital Registration Certificate (DRC) have been produced and 1,81,396 DRC have been distributed
- Collection of MV taxes and fees through online banking system is continuing
- Removing the miserable condition of Taxi cab service, a modern and environment friendly taxi cab service has been introduced in Dhaka in the light of Taxi Cab Guide Line, 2014. 400 taxicabs are in operation
- A modern central Data Center has been established for preserving different vehicle and driving license data (on line Banking, Digital Driving License, Digital

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Registration Certificate, BRTA Management Information systems etc.) with safety and security and

- Motor Vehicle Registration, tax token, issuance at fitness certificate, route permit etc issue/renew is being running through Information System of BRTA.

As of February 2019 in FY2018-19, BRTA collected revenues Tk.1,165.65 crore against the target of Tk.1,834 crore. The figures of target and actual collection of revenues from the FY2009-10 to FY2018-19 are given in table 11.3 below:

Table 11.3: Revenue Target and Collection of BRTA

(In crore Taka)

Fiscal year	Target Amount	Collection	Percentage of Collection (%)
2009-10	660.00	642.50	97.35
2010-11	870.00	685.24	78.76
2011-12	903.58	642.37	71.09
2012-13	1101.24	769.86	69.91
2013-14	1156.59	952.24	82.33
2014-15	1249.23	1062.29	85.04
2015-16	1354.01	1619.01	119.57
2016-17	1771.83	1470.18	83.00
2017-18	1805.00	1589.55	88.06
2018-19*	1834.00	1165.65	63.55

Source: BRTA * Up to February 2019

Bangladesh Road Transport Corporation (BRTC)

Bangladesh Road Transport Corporation (BRTC) plays an important role to ensure modern, fast, efficient, economic, comfortable and safe road transport system through a controlled mechanism for better quality service and reasonable fare/freight. At present, there are 1,430 buses and 119 trucks

in the fleet of BRTC as well as there are 20 bus depots and 2 truck depots.

Some progressive activities of BRTC in recent time are given below:

- To facilitate the journey of the students of different educational institutions, 44 buses were donated to 22 educational institutions from BRTC fleet during FY2016-17
- To facilitate comfortable journey to the government and semi-government employees, beside the students of different universities, BRTC deployed 268 staff buses to 39 institutions. In addition, to facilitate safe journey for the tender children 3 school buses are running now- 2 in *Mirpur-Azimpur* route and 1 in *Sheora-MES* (Naval Headquarters) route
- At present 17 buses, exclusively for 'Women Bus Service', are running in 14 routes, 15 buses in Dhaka and 2 in *Chattogram*
- BRTC is providing free transport service to the designated and war-wound freedom fighters. In addition, BRTC reserves 15 seats in each bus of city service for women, children, physically challenged people and freedom fighters
- International bus services of BRTC is running now in *Dhaka-Kolkata-Dhaka*, *Dhaka-Agartola-Dhaka*, *Agartola-Dhaka-Kolkata-Agartala*, *Dhaka-Sylhet-Shilong-Gouhati-Dhaka* and *Dhaka-Khulna-Kolkata-Dhaka* routes
- Rapid Pass (e-ticketing system) for bus service passengers has been introduced in *Abdullahpur-Motijheel* route. In addition, mobile app 'KOTODUR' has also been introduced for locating/predicting the

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position of buses on the road in *Nabinagar-Gabtolli* route. Besides, introduction of ‘Vehicle Tracking System’ in all buses and trucks of BRTC is under process

- For skill development, 36,000 drivers of BRTC will be provided 4-month long training under Skill for Employment Investment Program (SEIP) and
- Procurement of 300 double-decker, 200 AC single-decker & 100 Non-AC single-decker buses and 500 trucks is processing under the project ‘Procurement of double decker, single decker AC & Non-AC bus for BRTC and procurement of Trucks for BRTC’ finance by Indian Line of Credit (LOC).

The financial statement of BRTC from FY2009-10 to FY2018-19 is given in the Table 11.4:

Table 11.4: Revenue Target and Collection of BRTC

(In Crore Taka)

Financial Year	Operating Income	Operating Expenditure	Operating Surplus
2009-10	98.81	91.31	7.50
2010-11	115.11	109.84	5.27
2011-12	173.60	171.90	1.70
2012-13	201.70	198.48	3.22
2013-14	243.11	233.53	9.58
2014-15	234.07	230.51	3.56
2015-16	266.36	258.31	8.05
2016-17	262.55	267.60	-5.05
2017-18	253.18	256.10	-2.92
2018-19*	164.47	164.75	-0.28

Source: BRTC * Up to February 2019

Dhaka Transport Coordination Authority (DTCA)

Dhaka Transport Coordination Authority (DTCA) was established on 2 September 2012 to provide a smooth planned,

coordinated and modern transport system for Dhaka city and its adjacent districts. DTCA jurisdiction covers Dhaka North City Corporation and Dhaka South City Corporation, *Gazipur* City Corporation and *Narayanganj* City Corporation as well as districts of *Dhaka*, *Narayanganj*, *Munshigonj*, *Manikgonj*, *Gazipur* and *Narsingdi*. Area of region of DTCA is about 7,400 square kilometers. As a matter of fact, DTCA plans, approves, coordinates and monitors the transport related infrastructure projects within its jurisdiction.

Progress of Important Activities of DTCA

Coordination of Transport System

Dhaka Transport Co-ordination Authority Board comprises of 31 members. Board gives approval and direction for establishing Multimodal Transport System in and around Dhaka.

Strategic Transport Plan (STP)

In 2005, 20 year long term Strategic Transport Plan was formulated. Due to expansion of DTCA’s jurisdiction, rapid urbanisation, improvement of living standards and so on, revised STP has been approved by the Cabinet on 29 August 2016.

Clearing House

In order to ensure hassle free and seamless travel by different modes of transport: Metrorail, Bus Rapid Transit, Bangladesh Railway, BRTC Bus, Marine Transport of BIWTC and Non-government contract buses etc. by using SMART card under e-ticketing system, clearing house at DTCA office has been established in May 2014. Name of

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Smart card has been fixed as ‘Rapid Pass’. As a clearing house, an agreement has been signed with Dutch Bangla Bank Limited on 25 January 2017. In the meantime, 65,000 Rapid Pass have been procured. Honorable Prime Minister inaugurated ‘Rapid Pass’ through video conferencing on 04 January 2018. Rapid Pass has been introduced for BRTC buses on *Abdullahpur-Motijheel* and *Gabtolli-Nabinagor* routes, for HR Transport buses in *Hatirjheel* circular route and for *Dhakar Chaka* buses on *Uttara-Motijheel* and *Gulshan* Circular routes. Introduction of Rapid Pass to collect toll at various toll plaza in the country is under process.

Dhaka Mass Transit Company Limited (DMTCL)

In order to alleviate Traffic congestion and to improve the environment in Dhaka Metropolitan City and its adjoining areas, a government owned company naming Dhaka Mass Transit Company Limited (DMTCL) has laid out the following time bound action plan to build a network of 6 Metro Rail systems by 2030. The time bound action plan is given in the Table 11.5:

Table 11.5: Time Bound Action Plan, 2030 of DMTCL

Name of the MRT Line	Phase	Probable Completion Year	Type
MRT Line-6	First	2024	Elevated
MRT Line-1	Second	2026	Elevated and Underground
MRT Line-5; Northern Route		2027	
MRT Line-5; Southern Route		2030	
MRT Line-2	Third	2030	Underground
MRT Line-4		2030	

Source: Road Transport and Highways Division.

Dhaka Mass Rapid Transit Development Project (MRT) Line-6:

Although MRT Line-6, the first Metro-rail in Bangladesh from *Uttara-Motijheel* being 20.1 km long with 16 stations and capable of carrying 60,000 passengers per hour in both ways, was planned for implementation during the period of 2012-2024, through a special arrangement under the direction of the Hon'ble Prime Minister, a revised plan for implementation is approved from the 3rd phase at *Uttara* to *Agargaon* by December 2019 and the works of the rest for *Agargaon* to Bangladesh Bank will be completed by December 2020 as an early commissioning. The progress for implementing the revised plan the Metro-Rail Construction is ongoing rapidly.

MRT Line-1 and MRT Line-5 (Northern & Southern Route):

MRT Line-1 comprising of 31.241 Kilometers is divided into two parts. They are: Airport Route and *Purbachal* Route. Activities are running to complete construction works of both the routes by 2026. DPP preparation for construction MRT Line-5 (Northern route) project by 2027 with a view to build 19.6 km long lines in combination of underground and elevated lines and 14 stations in between *Hemaetpur* and *Vatara* is ongoing. In order to build 17 km lines with 17 stations in between *Gabtolli* and *Dasherbandi* under MRT Line-5 (Southern route) project by 2030 pre-feasibility study have been started from 5 May 2018 with the assistance from the development partner.

MRT Line-2 and MRT Line-4

In order to build about 40 km lines in combination with underground and elevated in between *Gabtol* and *Chattogram* road under MRT Line-2 project, a G2G Memorandum of Assistance (MoA) was signed between the government of Japan and the government of Bangladesh on 15 June 2017. The total length, route alignment underground and elevated part of the alignment, depot, station numbers and location will be determined after the completion of the Pre-feasibility Study. The underground MRT or Subway (MRT Line-4) has been planned, which will be constructed beneath the existing Dhaka – *Narayanganj* railway route. To conduct the Pre-Feasibility Study for MRT Line-4, a development assistance agency is currently being sought.

Bridges Division

Bridges division is responsible for implementation and maintenance of bridges and tunnels (which are 1,500 meters and over in length), flyover, expressway, causeway, link road and so on. The main activities of ‘Bangladesh Bridge Authority’, the only organisation of Bridges Division, are as follows:

Bangabandhu Bridge

To ensure integrated communication system between two regions divided by the *Jamuna* River, 4.8 km long *Bangabandhu* bridge was built in June 1998 over *Jamuna* river at the cost of Tk.3,745.60 crore. A direct rail communication has been established with capital Dhaka to *Rajshahi*, *Lalmonirhat*, *Dinajpur* and *Khulna* by building railway by

the side of *Bangabandhu* bridge. Now, it is possible to communicate with north-west region from Dhaka within very short time. Apart from the road and railways facilities, other facilities like electricity, gas and fiber optic telephone line have been established through this bridge.

Construction of *Bangabandhu* bridge facilitates the increase of agriculture production to a great extent in northern region and farmers are getting the fair price of their products. Furthermore, industries have flourished in that region too. The bridge is significantly contributing in economic development through reduction of poverty. The revenue earnings for the period of FY2009-10 to FY2018-19 (up to February) from this bridge are shown in Table 11.6.

Table 11.6: Description of the toll collected from *Bangabandhu* Bridge

(In Crore Taka)

Financial Year	Target	Revenue collection	Collection rate (%)
2009-10	230.00	243.93	106.00
2010-11	260.00	267.66	102.94
2011-12	312.21	304.66	97.58
2012-13	335.40	325.20	96.96
2013-14	358.98	323.38	90.23
2014-15	365.13	349.08	95.60
2015-16	391.97	402.43	102.66
2016-17	456.68	484.42	106.07
2017-18	539.48	543.80	100.80
2018-19*	566.44	376.00	66.37

Source: Bangladesh Bridge Authority,* Up to February 2019.

Padma Bridge

The present government has shown the highest priority for constructing the *Padma* Multipurpose Bridge at *Mawa-Janjira* point (6.15 meter long) for establishing an

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integrated communication network among all regions of the country. The implementation work of this ever largest project at the cost of TK.30,193.38 crore which is also the biggest own funded project and is progressing in full swing. Overall physical progress of project is 64.50 percent till February 2019.

The progress of important packages of The *Padma* Multipurpose bridge project up to February 2019 is as follows:

- **Main Bridge:** The physical progress of main bridge is about 74 percent.
- **River Training Works:** The physical progress of river training work is around 52 percent.
- **Resettlement:** TK.638.99 crore has been given as additional assistance among the affected people till February 2019. About 2,606 plots have been allotted to the affected families in the resettlement sites. Among them 771 landless (affected) families have got plot without any cost.
- **Environment:** 1,69,957 saplings have been planted to resettlement area, approach roads and service area on both sides of *Padma* bridge. Besides, establishment of a museum at project is progressing. Meanwhile, 1,900 samples have been collected and preserved.

The *Padma* Bridge will connect 19 districts of south-western region of the country with the eastern part and the capital Dhaka. Moreover, this bridge will bring revolutionary changes in the communication system in the South Asian regions as well as in the internal communication system due to its alignment in the Asian Highway (AH-1). This bridge will play a significant role in the

socio-economic development by raising GDP by 1.20 percent and reducing poverty by 0.84 percent approximately.

Construction of *Dhaka* Elevated Expressway

An agreement has been signed with 'Italian-Thai Development Public Company Limited' on 15 December 2013 to construct the 46.73 kilometer (with ramp) long *Dhaka* elevated expressway from *Hazrat Shah Jalal (R)* international airport to *Kutubkhali* on the *Dhaka-Chattagram* highway on PPP basis. Construction work of the expressway is progressing. Up to February 2019, 1,313 piles have been driven. Besides, 287 pile cap, 67 cross beam, 169 column and 186 I-girder has already been constructed. About 47 km new roads will be added in *Dhaka* city after completion of this elevated expressway.

Construction of Tunnel under the River *Karnaphuli*

In order to connect west part of *Chattagram* city to East part, reduce traffic jam, ease direct road communication among *Dhaka-Chattagram-Cox'sbazar* and transport goods from *Chattogram* sea port and proposed deep sea port the implementation work of 3.40 kilometer long tunnel under the river *Karnaphuli* at a cost of Tk.8,446.46 crore is progressing. Hon'ble Prime Minister inaugurated the Tunnel Boring Machine (TBM) on 24 February 2019. Meanwhile, construction of 7,364 segments has been finished. Up to February 2019, 32 percent of physical work has been completed. Completion of the construction is expected by 2022.

Construction of BRT Lane (Elevated Section)

Steps have been taken to construct of 20 kilometer long Bus Rapid Transit (BRT) lane at the cost of Tk.2,039.85 crore from *Gazipur* to *Hazrat Shah Jalal* (R) international Airport under Sustainable Urban Transport project. Bangladesh Bridge Authority (BBA) is responsible for implementation of 4.5 kilometer elevated section. Meanwhile, implementation work of elevated section has been started and progress up to February 2019 is 5.60 percent.

Construction of Dhaka-Ashulia Elevated Expressway

To construct about 24 kilometer long *Dhaka-Ashulia* Elevated Expressway from *Hazrat Shah Jalal (R)* international airport to EPZ through *Ashulia*, the project has been approved by the ECNEC on 24 October 2017 with an estimated cost of TK.16,901.32 crore. To construct the expressway on G-to-G basis, commercial agreement has been signed with a Chinese government nominated company on 29 November 2017. It will connect Asian Highway Network and almost all National Highway and thereby, it will reduce traffic congestion in *Abdullahpur-Ashulia-Baipail-Chandra* corridor that connects Dhaka city with 30 other districts. After completion of this expressway, GDP growth will be increased by 0.21 percent.

Construction of Dhaka East-West Elevated Expressway

To construct about 39.24 kilometer long Elevated Expressway from *Baliapur* of *Dhaka-Aricha* highway to *Langolbond* of *Dhaka-Chattogram* highway through *Nimtoli-*

Keranigonj-Fatulla-Bandor, PDPP has been approved with an estimated cost of TK.16,388.50 crore. Malaysian government has given proposal to construct it through G-to-G basis. This expressway will connect National Highway N5 (*Dhaka-Aricha*), N8 (*Dhaka-Maoa*) and N1 (*Dhaka-Chattogram*). Apart from reducing traffic congestion in and around Dhaka city, traffic movement from *Chattagram, Sylhet* and other eastern part and from south western region through *Padma* bridge to the north-western districts will be easier without entering Dhaka city. It will also be connected with Asian Highways.

Conduct Feasibility Study to Construct Subway (Underground Metro) in Dhaka city

Initiative has been taken to construct subway in order to reduce traffic jam in Dhaka city. Feasibility study is progressing. The implementation work is expected to commence in time after finalization of route alignment through feasibility study.

Feasibility Study of Tunnel Under the River Jamuna

Initiative has been taken to conduct feasibility study to construct tunnel under the river Jamuna between Jamalpur and Gaibandha.

Construction of Other Large Bridges

In order to maintain uninterrupted road network, initiatives have been taken to build new bridges at different location. As a part of this, feasibility study for construction of bridges at '*Rahmatpur-Babugonj-Muladi-Hijla*' roads over *Arialkha* river, at '*Lebukhali-Dumki-Boga-Doshamina-Golacipa-Amragachi*' roads over *Golacipa* River, at '*Kocua-betagi-Potuakhali-Lohalia-*

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Kalia' roads over *Payra* river have been completed. PDPP has been approved for these three proposed bridges costing of TK.1,944.24 crore taka. It is expected that construction of these bridges will start soon after availability of finance.

Moreover, Feasibility study is going on for 5 other bridges; over *Payra* river in *Patuakhali-Amtoli-Borguna* road, over *Karkhana* river in *Bakergonj-Baufol* road, over *Meghna* river in *Bhulta-Araihazar-Nabinagar* road, over *Bishkhali* river in *Borguna-Pathorghata* road and over *Tetulia* and *Kalabodor* river which connect *Barishal* with *Bhola*. Construction work of these bridges will start in time.

B. Railway Communication

The present government has created a separate Ministry named as Ministry of Railways (MoR) on 04 December 2011 to ensure improvement of railway sector in Bangladesh. The improvement of rail communication and transport services has been included as a priority sector in the national document on 7th Five-Year Plan and Perspective Plan Vision-2021 and more budget has been provided for the development of the railway than any of the past. Total Number of 230 projects cost of TK.5,53,662.00 crore are included for the implementation of six stages from July 2016 to June 2045 in newly approved railway master plan.

Bangladesh Railway has around 2,955.53 kilometer of network which connects 44 District and almost all the important places of the country. Necessary steps have been taken to renovate existing rail tracks, purchase of

locomotives, wagons and new coaches and modernization of signaling system and level crossing gates, bring reform in railway and collection of Diesel Electric Multiple Unit (DEMU).

Achievement records of Bangladesh Railway during the tenure of the present government since 2009, Bangladesh Railway has constructed 330.15 km railway line, 295 bridges, 91 new station buildings and converted 248.50 km railway line into Dual Gauge. Moreover, during that period, 1,135.23 kilometers of railway line, 644 bridges, 117 station buildings, Modernization of Signaling System at 90 stations, rehabilitation of Signaling System at 9 stations, 430 passenger coaches and 277 wagons have been rehabilitated. 46 (20 MG, 26 BG) locomotives, 270 passenger coaches, 20 sets of DEMUs, 516 freight wagons and 30 brake vans have been procured to improve rolling stock fleet and included 127 new train services in different route and extended 38 on going train service.

In order to meet the growing demand of passengers, projects have been taken for procurement of 100 MG and 40 BG locomotives, 550 MG and 150 BG passenger coaches to resolve rolling stock crisis. After adding these resources to Bangladesh Railway as well as after accomplishment of Railway Master Plan 2016-2045, service of railway will be improved significantly and thereby Bangladesh Railway will transform into modern mass transport system.

Table 11.7 presents year wise data on overall performance of Bangladesh Railway over the period from FY2009-10 to FY2017-18.

Table 11.7: Overall Performance of Bangladesh Railway

Fiscal Year	Passenger Km (Million)	Freight Ton Km (Million)	Total operating revenue (Tk. in crore)	Total operating expense (Tk. in crore)
2009-10	7304.95	710.06	673.16	1257.20
2010-11	8051.92	692.64	747.07	1491.82
2011-12	8787.23	582.11	726.42	1567.12
2012-13	8253.42	525.37	804.26	1562.38
2013-14	8134.70	677.35	800.17	1601.69
2014-15	8711.36	693.84	935.45	1808.29
2015-16	9167.18	675.09	904.02	2229.22
2016-17	10040.66	1052.67	130.37	2835.52
2017-18*	12993.91	1236.50	1486.10	2918.02

Source: Ministry of Railway. *Provisional.

C. Water Transport

The Ministry of Shipping has been developing, maintaining, managing and controlling the internal water transport infrastructure of Bangladesh to maximize the use of waterways as an affordable, environment-friendly and secure communication system. In order to achieve overall economic development of the country by providing modern ports management, ensuring safe and uninterrupted shipping, human resources development and providing efficient and affordable water transport services, the activities of various departments/organisations under the Ministry of Shipping are described below:

Bangladesh Inland Water Transport Authority (BIWTA)

Bangladesh Inland Water Transport Authority (BIWTA) is responsible for development, maintenance and conservation of inland water transportation system, ensuring safe movement of water crafts, development of inland river ports, providing pontonns and

landing facilities at different launch terminals, activating the circular waterways around Dhaka city, creating infrastructural facilities to carry container goods in inland waterways, preparation of hydrographic charts in digital system, etc. are the major initiatives to be mentioned.

A total of 23 development projects of BIWTA were included in the Revised Annual Development Program (RADP) in the FY2018-19. A total allocation of TK.1,405.30 crore has been made against these projects. A sum of TK.420.79 crore expenditure has been incurred up to February 2019 against the projects included in the RADP. The revenue income of BIWTA in the FY2018-19 is Tk.500.28 crore up to February 2019. Table 11.8 shows the year wise income and expenditure of BIWTA during the period from FY2009-10 to FY2018-19.

Table 11.8: Income and Expenditure of BIWTA

Fiscal Year	Income	(In crore taka)	
		Actual Expenditure	Profit/Loss (+/-)
2009-10	185.87	191.05	-5.18
2010-11	237.53	239.10	-1.57
2011-12	290.78	272.91	+17.87
2012-13	349.09	329.40	+19.69
2013-14	320.04	377.61	-57.57
2014-15	358.02	382.31	-24.29
2015-16	500.80	518.88	-18.08
2016-17	614.46	699.67	-85.21
2017-18	625.35	689.33	-63.98
2018-19*	500.28	519.61	-19.33

Source: BIWTA, Ministry of Shipping. *Up to February 2019.

BIWTA performs development and maintenance dredging in every year for smooth transportation of passenger and cargo. The volume of development and maintenance dredging during the period from FY2009-10 to FY2018-19 is presented in Table 11.9.

Table 11.9: Development and Maintenance Works of BIWTA

Fiscal Year	Dredging Quantity (lakh cubic meter)		
	Development Dredging	Maintenance Dredging	Total
2009-10	5.04	34.92	39.96
2010-11	25.54	40.16	65.70
2011-12	24.47	43.61	68.08
2012-13	56.03	44.65	100.68
2013-14	47.02	57.90	104.92
2014-15	120.15	50.77	170.92
2015-16	178.22	104.79	283.01
2016-17	158.79	117.37	276.16
2017-18	211.89	134.98	346.87
2018-19*	110.24	126.76	237.00

Source: BIWTA, Ministry of Shipping. * Up to February 2019.

In addition to the above dredging activities, BIWTA procured 28 technologically advanced dredgers and 83 ancillary vessels. Besides, procurement of 2 high-powered salvage vessels, modernization of 2 river Ports (*Dhaka River Port, Barisal River Port*), installation of 118 new pontoon (up to February 2019) in different ferry ghat, launch ghat, wayside ghat, development of 20 km walkway and other infrastructures with allied

work on Evicted Foreshore Land and installation of 315 pontoons of various sizes in different launch landing stations and river ports after having minor and major repairs and other development works have made the transportation of passengers and goods safe and easier.

Bangladesh Inland Water Transport Corporation (BIWTC)

By operating 177 vessels BIWTC is working to provide reasonable and service oriented developed transport system. To improve the service quality, BIWTC has constructed 19 ferry, 2 Inland Passenger Vessel (M.V. *Bangali* & M.V. *Madhumoti*), 12 Water Bus, 4 Sea-truck, 4 container transport vessels and overall 41 commercial marine vessels as well as 12 ancillary marine vessels (including pontoons), i.e. in total 53 marine vessels are deployed for service with a cost of Tk.423.13 crore.

To expedite commercial activities of BIWTC 3 river cruiser, 3 internal passenger travel ship, 4 coastal passenger travel ship, 8 sea trucks, 6 K-type ferries, 6 utility ferries, 2 tankers, 2 firefighting cum salvage tugs, 1 cabin cruiser cum inspection boat as well as to increase efficiency of dockyards 2 high capacity Slipways will be constructed under the project 'Procurement of 35 commercial and 8 ancillary marine vessels and construction of 2 Slipways' with a cost of Tk.1,319.71 crore.

Table 11.10 shows the income and expenditure of the organisation since FY2009-10 to FY2017-18.

**Table 11.10: Income and Expenditure
Statement of BIWTC**

(In Crore Taka)

Financial Year	Income	Actual Expenditure	Net Profit
1	2	3	9
2009-10	200.13	150.10	28.73
2010-11	211.99	153.81	32.08
2011-12	229.68	183.48	19.28
2012-13	272.21	216.13	56.08
2013-14	297.35	235.08	62.27
2014-15	326.72	269.43	57.29
2015-16	359.18	310.96	48.22
2016-17	356.95	329.71	27.24
2017-18	371.91	287.36	84.55

Source: Bangladesh Inland Water Transport Corporation.

Chattogram Port Authority (CPA)

As the principal sea port of Bangladesh, *Chattogram* Port Authority handles nearly 92 percent of international trade of the country. Port activities are increasing day by day with the increasing trend of export-import of the country. At present the container handling growth of CPA is 14 percent. Increasing trend of exports of garments and other goods are handled by *Chattogram* Port Authority. Considering the enormous importance of *Chattogram* Port on total economy of the country, the present government has taken massive development programs to add more dynamism in the operating activities of the Port. To Maintain navigability in front of jetty pontoon, outer bar area and at *Karnafully* navigational channel, an average of 10 lakh cubic meter maintenance dredging usually performed on yearly basis. As a result foreign and domestic ships can navigate safely. As per international standard one of the main performance indicators of any port is to keep Turn-Around time of vessels at a minimum level.

In FY2017-18 the average turn-around time

of container was 10.81 days, in FY2018-19 (from July 2018- January 2019) it comes to 10.88 days. In FY2017-18 the average turn-around time of container vessel at Jetty birth was 2.55 days, in FY2018-19 (from July 2018- January 2019) it comes to 2.86 days. Average growth of import-export trade of cargo in 2017-18 was 12.58 percent and in container it was 8.88 percent. In 2018-19 (form July 2018-January 2019) the growth rate of import-export trade was 7.50 percent and 5.97 percent respectively.

Despite of various obstacles, the performance of CPA is increasing day by day comparing with the modern ports of the world as per international standard. *Chattogram* Port has already got reputation in the world shipping sector. In the survey of one of the oldest shipping related international news magazine 'Lloyd's List' *Chattogram* Port secure 98th position in the year 2009 and in the last survey *Chattogram* Port achieved 70th position. So *Chattogram* Port has forwarded 28 steps ahead within last 10 years.

Table 11.11 shows the income and expenditure of CPA

Table 11.11: Income and Expenditure of CPA

(In Crore Taka)

Fiscal Year	Rev. Income	Rev. Expenditure	Rev. Surplus (Before Tax)
2009-10	1155.35	624.78	530.57
2010-11	1453.15	634.13	819.02
2011-12	1529.92	652.62	877.30
2012-13	1570.37	803.00	767.37
2013-14	1634.32	815.65	818.67
2014-15	1876.82	860.95	1015.87
2015-16	2029.25	1065.83	963.42
2016-17	2407.65	1352.54	1055.11
2017-18	2647.64	1419.05	1228.59
2018-19*	1972.32	873.96	1098.36

Source: *Chattogram* Port Authority, *Up to February 2019.

Mongla Port Authority (MPA)

Mongla Port was established in 1st December 1950 as an anchorage. It has been turned into a modern facilitated seaport gradually by implementing different development projects. At present, *Mongla* port has the capacity to birth more than 35 of ships at a time, 6 in own Jetties, more than 22 in anchorages and 7 in private companies Jetties.

In FY2018-19, *Mongla* port handled 97.16 lakh M.T of cargo, 42,989 TEUs of container, 17,295 cars. Table 11.12 shows the income and expenditure of *Mongla* Port from FY2009-10 to FY2018-19.

Table 11.12: Income, Expenditure and Profit/Loss of Mongla Port

(In Crore Taka)

Fiscal Year	Income	Expenditure	Net Income/ Loss (+/-)
2009-10	66.49	64.22	2.27
2010-11	85.52	63.69	21.83
2011-12	105.81	71.66	34.15
2012-13	138.08	94.13	43.95
2013-14	155.73	102.10	53.63
2014-15	170.17	109.48	60.69
2015-16	196.62	131.90	64.72
2016-17	226.56	155.15	71.41
2017-18	276.14	166.81	109.33
2018-19*	212.60	114.65	97.95

Source: *Mongla* Port Authority * Up to February 2019.

To expedite the operational activities and develop the port infrastructure, government has taken different types of initiative such as construction of *Padma* Bridge at *Mawa* point, establishment of *Khulna-Mongla* railway link, construction of *Khan Jahan Ali* airport, establishment of 1,320 MW powered coal based power Plant at *Rampal*, Special Economic Zone at *Mongla* Port area etc. Those works are expected to be completed by

2020-21. After establishment of coal based power plant at *Rampal* minimum 45 lakh metric tons coal would likely to be imported through *Mongla* Port annually as raw materials of the company. On the other hand, Special Economic Zone will create a new horizon for imports and exports. Consequently, the uses of *Mongla* Port will be increased tremendously after 2018.

To meet up these additional demands efficiently and effectively, *Mongla* Port has undertaken various development plans. Under these development plans, 10 projects are on-going and 7 are under process of approval. Under these on-going development projects, 15.60 million cubic meter dredging works will be completed in the different places of *Pussur* Channel, Installation of VTMISS and Surface Water Treatment Plant, Expansion and Development of Existing Roosevelt Jetty, Procurement of 1 Tug Boat and 1 Mobile Harbor Crane and 1 oil spill clean up vessel Construction of 2 Incomplete Jetties and Preparation of Strategic Master Plan will be done.

Payra Port Authority

Payra Port started its journey on 19 November 2013, as third sea port of the country. In order to engage the port with limited scale of operational activities primarily with cement clinker, fertilizer and other bulk carrier vessels call in at the outer anchorage and discharge the cargo onto the inland vessels for hinterland transportation. For hassle free foreign and inland vessels movement fare way and mooring buoys have been laid to earmark navigational channel. VHF (Very High Frequency) base station also

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installed with telecommunication equipments. The customs and shipping facilities have also been established. As per requirement of International Association for Ports and Harbor ISPS (International Ship and Port Facility Security) code has implemented and UN locator code allotted for *Payra* Port by United Nations. An Electric Sub-Station with 1,000 KVA capacity is installed for uninterrupted power supply. Beside aforesaid facilities, an water treatment plant with a production capacity of 250 MT/h has been installed for supplying pure drinking water to foreign vessels. In addition to these for easy ships berthing a Pontoon Jetty and 2 nos 5 tonne lifting capacity electric cranes are also installed. An Warehouse with 1,00,000 sq. feet plinth area is constructed for storage of import cargo. The operational activity of *Payra* Port was inaugurated in August 2016 by introducing ship to ship cargo transfer system. In FY2017-18, 9 seagoing foreign vessels landed at *Payra* port and it handled 1.72 lakh metric tonnes of goods.

Bangladesh Land Port Authority (BLPA)

The objective of Bangladesh Land Port Authority is to facilitate and improve the export-import activities among the neighboring countries through land routes. Bangladesh Land Port Authority came into being in 2001 with a declaration of 12 land ports. At the outset the authority started functioning with 12 land ports. Subsequently 11 more land customs stations have been declared as land port. So far, the total number of land ports are 23. Among them, *Benapole*, *Bhomra*, *Burimari*, *Akhaura*, *Nakugaon*, *Tamabil* and *Sonahat* land ports are being

operated by own management of BLPA. On the other hand, *Sonamasjid*, *Hili*, *Banglabandha*, *Teknaf* and *Bibirbazar* are being operated on Build, Operate and Transfer (BOT) basis.

Table 11.13 shows year wise income and expenditure of BPLA during the period from FY2009-10 to FY2018-19.

Table 11.13: Income and Expenditure of Bangladesh Land Port Authority

(In Crore Taka)			
Fiscal year	Income	Expenditure	Surplus (+/-)
2009-10	33.52	26.29	7.23
2010-11	41.20	32.38	8.82
2011-12	42.08	31.91	10.17
2012-13	47.78	35.82	11.96
2013-14	61.31	51.06	10.25
2014-15	70.52	47.38	23.14
2015-16	83.20	55.36	27.84
2016-17	111.51	75.02	36.49
2017-18	148.33	95.53	52.80
2018-19*	119.55	85.96	33.59

Source: Bangladesh Land Port Authority* Up to February 2019

Department of Shipping (DOS)

Department of Shipping is responsible to ensure safety of inland, coastal fishing, ocean-going vessels of Bangladesh and foreign vessels calling at Bangladeshi ports. It also protects the trade interest of the Bangladeshi vessels. The functions of this organisation are performed according to the provisions of national shipping policies, shipping laws and regulations and applicable conventions relating to maritime and inland

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shipping keeping liaison with IMO, ILO, UNCTAD and other related organisations. The department imparts training following International Maritime Standard.

The main sources of revenue incomes of the Department are: registration and survey of ships, conducting competency examination and issuing certificate to the seafaring officers and crews, examination fees, light dues, issuing seafarers ID cards, manning agents licensing fees, penalty for contravention of shipping laws etc. The statement of incomes and expenditures of this organisation is shown in the Table: 11.14.

Table 11.14: Income and Expenditure of the Department of Shipping

(In Crore Taka)

Fiscal Year	Target of	Actual	Expenditure
2009-10	9.25	11.67	4.63
2010-11	10.25	12.55	5.53
2011-12	12.71	13.26	5.54
2012-13	14.26	12.95	14.63
2013-14	15.26	14.43	10.12
2014-15	15.99	18.21	9.33
2015-16	17.29	29.03	11.63
2016-17	19.72	33.46	16.37
2017-18	37.49	38.98	16.56
2018-19*	24.32	19.12	11.04

Source: Department of Shipping* up to February 2019

To ensure maritime safety, security and to facilitate rescue operation as a mandatory requirements of international conventions, the Department of Shipping has undertaken two development projects named 'Establishment of Global Maritime Distress and Safety System and Integrated Maritime Navigation System' with an estimated cost of Tk.455.95

crore and 'Development of Maritime Legislation of Bangladesh' with an estimated cost of Tk.4.12 crore. Moreover, a new project named 'National Ships & Mechanized Boats Database Management and capacity Building' has also been proposed to the government for implementation. After implementation of these projects the overall maritime safety and security of inland, coastal and oceangoing vessels will be strengthened.

Bangladesh Shipping Corporation (BSC)

Bangladesh Shipping Corporation (BSC) has been playing an important role with an aim of providing safe and efficient shipping services in international sea routes and carry out all forms of activities connected with from various foreign trade countries through ancillary shipping. Despite the limitations of resources, BSC is able to acquire a total of 38 ships through continuous efforts and patronization of the government since establishment. At present there are 7 vessels in BSC fleet.

BSC has undertaken a number of development projects to acquire a number of vessels of different types and sizes by 2021. Among these, six new vessel procured by the finance of China government will be added to the BCS fleet by 2019. Besides, procurement process of 2 new chemical/crude oil tanker, 2 new mother tankers, 10 new bulk carriers, 4 new cellular container vessels, 2 new Mother Bulk carriers (specialised for carrying coals etc.) and 2 new Mother Product Oil Tankers (specialised for carrying diesel etc.) financing by loan of various countries/development partners as well as procurement of 2 LNG carrier are under process.

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Table 11.15 shows year wise income and expenditure of BSC during the period from FY2009-10 to FY2018-19.

Table 11.15: Statement of Income-Expenditure and Profit-Loss of BSC

(In Crore Taka)

FY	Total Income	Total expenses	Net Profit/ Loss (+/-)
2009-10	273.25	259.91	13.34
2010-11	266.66	264.79	1.87
2011-12	282.01	280.55	1.46
2012-13	328.59	326.96	1.63
2013-14	171.14	167.77	3.37
2014-15	130.01	124.67	5.34
2015-16	118.81	112.08	6.73
2016-17	116.55	107.89	8.66
2017-18	129.44	116.92	12.52
2018-19*	77.73	64.03	13.70

Source: BSC, * Up to December 2018.

Marine Academy, Chattogram

Bangladesh Marine Academy was established in 1962. In accordance with the 'International professional competency standard of International Maritime Organisation (IMO) BMA has made 7,816 mariners successfully. Currently, as affiliated with *Bangabandhu Sheikh Mujibur Rahman* Maritime University, previous 3 years` Bachelor Degree course of the Academy has been transformed into 4 years Bachelor of Maritime Science (BMS) Honours Degree. As part of Women Empowerment Female Cadets training in the Academy has been started. The Female Cadets being trained up in the Academy have been working at home and abroad ships with reputation.

National Maritime Institute

National Maritime Institute is the only Technical Training Centre for Bangladeshi seafarers (ratings). Unemployed youths are selected for training from all over the country under a standard selection procedure. They

are trained here as per the syllabus in accordance with the STCW convention of IMO to develop them into competent maritime manpower. Various ancillary courses are being introduced here for enhancing the skills and promotion of serving seafarers (Post-Sea ratings and officers).

National River Conservation Commission (NRCC)

The National River Conservation Commission started its journey in August 2014. It was established for taking measures in connection with illegal occupation of rivers, pollution of waters and environment, pollution of rivers caused by waste and garbage from the industries and factories and others, illegal construction and various irregularities and ensuring multidimensional use of rivers for socio-economic development including restoration of the normal and natural flow of rivers, proper maintenance thereof and making them navigable. Some

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major achievements of the commission are given below:

- National River Conservation Commission has established bridge among ministries, departments and agencies to play active roles for conserving all rivers and waterbodies
- Detailed data has been collected by river conservation committees at division, district and *upazila* level. This will create concrete river based database which will be used for researches of rivers to formulate policy of river conservation
- It may possible to revive 46 km of *Boral* river due to the initiative taken for flow of water from *Padma* river to source of *Boral* river at *Charghat, Rajshahi*
- Primary survey by the commission has been done for reclamation of Second Channel of *Buriganga* and
- To identify boundary of all the rivers of Bangladesh, especially 5 rivers surrounding *Dhaka (Buriganga, Shitalakshya, Balu, Turag and Dhaleswary)* all district commissioner have been motivated.

D. Air Transport

Civil Aviation Authority of Bangladesh (CAAB)

At present Civil Aviation Authority of Bangladesh (CAAB) operates 3 international airports, 7 domestic airports and 2 Short Take-Off and Landing (STOL) ports. Out of these, 8 airports are in operation. Due to inadequacy of passengers, no flight is operating at 2 other domestic airports and 2 STOL ports. The financial position of CAAB during the period from FY2009-10 to FY2018-19 is shown in Table 11.16.

Table 11.16: Financial Position of CAAB

(In Crore Taka)

Fiscal Year	Revenue Income	Revenue Expenditure	Total Expenditure (Revenue and others)	Net Profit
2009-10	642.02	265.31	416.81	225.21
2010-11	653.89	316.87	623.84	30.05
2011-12	731.05	378.54	838.44	(107.39)
2012-13	795.21	330.34	644.53	150.68
2013-14	1150.29	423.33	976.86	173.43
2014-15	1410.32	497.67	1277.22	133.10
2015-16	1504.17	506.85	1256.76	247.41
2016-17	1518.14	571.56	1424.17	93.97
2017-18	1659.65	594.16	1766.04	(106.39)
2018-19*	948.34	444.50	981.88	(33.54)

Source: Civil Aviation Authority * Up to February 2019

Biman Bangladesh Airlines Limited

At present, *Biman* Bangladesh Airlines Limited, the national flag carrier, is operating flights to 7 domestic and 15 international destinations. These include 2 destinations in the SAARC countries, 4 destinations in the South-East Asia, 8 destinations in the Middle East and 1 destination in Europe. Year wise income and expenditure of *Biman* during FY2009-10 to FY2018-19 is shown in Table 11.17

Table 11.17: Income and Expenditure of *Biman*

(In Crore Taka)

Fiscal Year	Revenue Income	Expenses	Net Profit/Loss (+/-)
2009-10	2948.03	2994.05	-46.02
2010-11	3343.93	3568.09	-224.16
2011-12	3823.67	4417.88	-594.21
2012-13	3951.89	4237.52	-285.63
2013-14	3816.94	4102.56	-285.61
2014-15	4772.79	4448.65	324.13
2015-16	4965.53	4730.03	235.50
2016-17	4551.52	4504.63	46.90
2017-18	4931.64	5133.11	-201.47
2018-19*	3175.12	2938.33	236.79

Source: *Biman* Bangladesh Airlines Limited, * Up to December 2018.

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At present, *Biman* has a fleet of 13 aircraft, which includes 4 (four) 777-300ER, 2 (two) 787-800, 4 (four) 737-800 and 3 (three) Dash8-Q400 aircraft. In order to modernize the fleet, *Biman* signed two Purchase Agreements with the Boeing Co., USA in 2008 for purchasing 10 brand new aircraft. Under the agreements, 8 aircraft have already been delivered and the remaining 2, 787-8 aircraft are scheduled to be delivered in July and September 2019. To extend services in the domestic and regional sectors, *Biman* acquired 2 aircrafts in 2015 and 1 aircraft in 2018 on long term dry lease basis. *Biman* is in the process of acquiring 2 wide-body aircraft on short-term wet lease basis for operation during the Hajj season 2019. In FY2017-2018, *Biman* carried a total of 25.88 lakh passengers and 30,970 tonnes of cargo. In 2018, *Biman* also carried 64,871 Hajj Pilgrims out of total 1,27,208 Hajj pilgrims of Bangladesh.

In order to inform the flight schedule and other information to its valued passengers, *Biman* introduced SMS (Short Message Service) in August 2015. To facilitate the passengers, options have been introduced for purchasing tickets using mobile phones side-by-side the traditional options of using travel agency and on-line systems. Options have also been introduced for settlement/payment of ticket price using *Bkash/Rocket*. *Biman* attained capability to perform ‘C’-Check for 777-300ER and 737-800 aircraft and to perform repair and technical services of up-to ‘A’-Check for Dash8-Q400 aircraft. Besides, steps have been taken to optimise *Biman*’s revenue earnings and reduce sales cost through introducing Revenue Management

and Revenue Integrity Systems. For network extension, *Biman* is planning to extend its services to prospective new destinations like Guangzhou, Colombo and Male’ from Summer Schedule 2019.

E. Information and Communication Technology

Communication Technology

Bangladesh Telecommunication Regulatory Commission (BTRC)

Bangladesh Telecommunication Regulatory Commission (BTRC) is functioning with a view to providing reliable, affordable and modern telecommunication services for the mass people. To facilitate ‘connecting the unconnected’ through quality telecommunication and information technologies at an affordable price by introducing new technologies, BTRC is working in implementing the national dream of ‘Digital Bangladesh’. BTRC is playing an important role to expand internet and broadband connectivity throughout the country by effective utilization of public and private sector resources. Currently, the penetration of phone users is encouraging with the total number of subscribers exceeded 15.75 crore in January 2019. The number of internet subscribers exceeded 9.14 crore by the same time. The price of internet bandwidth has been reduced by more than 90 percent in last 9 years and as a result, broadband internet is penetrating at a high rate. Due to business friendly policy, many domestic entrepreneurs invested in telecommunication sector in last few years. Bangladesh has moved to 4G mobile technology in February 2018. The first ever

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satellite of Bangladesh, *Bangabandhu* Satellite-1, was launched in May 2018.

Table 11.18 shows the number of mobile and fixed phone subscribers, growth rate, internet

users, Tele density etc. up to January 2019 and Table 11.19 shows the total number of subscribers of different mobile operators during January 2019.

Table 11.18: Subscriber Number, Growth and Tele Density of Mobile and Fixed Phone

Subscriber Number, Growth Rate and Tele density	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*
Mobile Subscriber (Crore)	6.87	7.30	8.66	9.74	11.48	12.19	12.64	13.60	15.70	15.75
Fixed phone Subscriber (Crore)	0.17	0.10	0.10	0.10	0.07	0.06	0.06	0.06	0.07	0.13
Internet User (Crore)	-	-	2.84	3.10	3.55	4.28	6.66	7.33	9.13	9.14
Yearly Tele Density(%)	38.05	44.60	60.90	63.91	76.44	78.79	81.48	87.32	96.36	97.10

Source: BTRC; * Up to January 2019.

Table 11.19: Number of Subscribers of Different Mobile Operators (up to January 2019)

S.L	Operators	Subscribers (In million)
1.	Grameen Phone Ltd (GP)	73.06
2.	Banglalink Digital Communications Limited (Banglalink)	33.69
3.	Robi Axiata Limited (Robi)	46.90
4.	Teletalk Bangladesh Ltd (Teletalk)	3.88
	Total	157.54

Source: Bangladesh Telecommunication Regulatory Commission (BTRC) . * up to January 2019.

Bangladesh Telecommunications Company Limited (BTCL)

BTCL had 16.28 lakh telephone line capacity and 6.18 lakh telephone connection throughout the country at the end of February 2018. At the same time, 256 Kbps to 1.5 Mbps unlimited ADSL internet service was subscribed by 16 thousand customers. GPON based internet service of 2-10 Mbps internet speed over optical fiber got 1,535 customers. Number of Leased line subscribers of bulk bandwidth was 2,259 at the end of June 2018. BTCL is providing data and internet service by total 130 gbps bandwidth (120 gbps from submarine cable and 10 from terrestrial). BTCL has so far connected all 64 *zilas* and 471 *upazilas* and 1,212 Union Parishad through 23,500 Km optical fiber cable. Up to February 2019 number of Bangla domain

(.bangla) and .bd domain registered are 1,038 and 48,975 respectively.

Optical Fiber Network Development Project (290 *Upazila*) of BTCL costing Tk.625.00 crore was ended by June 2018. In total, 349 *Upazilas* in 64 *Zilas* have been connected through 8,900 Kilometer optical fiber cable under this project. High speed wireless broadband connectivity all over the country are being constructed by another project named Broadband Wireless Network for Digital Bangladesh (4G, LTE) costing Tk.957.00 crore. In addition, BTCL is implementing various projects to modernize telecommunication infrastructure.

Table 11.20 shows the revenue targets, revenue income and expenditure of BTCL during the period from FY2009-10 to FY2017-18.

Table 11.20: Year wise Income and Expenditure of BTCL

(In Crore Taka)

Fiscal Year	Target	Revenue Earned	Expenditure
2009-10	1583	1241	1343
2010-11	1566	1640	1976
2011-12	1760	2186	2203
2012-13	2498	1761	1756
2013-14	1306	1005	1385
2014-15	848	821	1106
2015-16	784	1242	1578
2016-17	982	1258	1442
2017-18	1148	1260	1652

Source: BTCL.

Bangladesh Submarine Cable Company Limited (BSCCL)

After the establishment of Bangladesh Submarine Cable Company Limited (BSCCL) in 2008 under the Ministry of Posts, Telecommunications and Information Technology, despite the initial bandwidth capacity of BSCCL with SEA-ME-WE-4 (SMW4) submarine cable system was only 7.5 Gbps, by participating to up gradation programs and connecting with the (SEA-ME-WE-5) submarine cable system it stands at around 1,800 Gbps. BSCCL is currently supplying almost 65 percent of the country's Internet bandwidth, which is about more than 650 Gbps.

BSCCL is playing important roles regarding the following issues:

- Reduction of Internet Bandwidth Price
- Up gradation of the SEA-ME-WE-4 submarine cable
- Connecting the Country with the second Submarine Cable
- Growth of Bandwidth Utilization
- Bandwidth Lease to North-Eastern provinces of India.

Since its inception from 2008, BSCCL has always been a profitable Company and playing an important role by contributing to the government's revenue income. But after the introduction of ITC companies in the year 2012, Bandwidth usage of BSCCL was reduced resulting in the decrease of revenue. This type of short time shortfall has been overcome through befitting guidance of the government and reduction of bandwidth price, BSCCL has regained its market share by proving maximum demand of the Country and become able to increase its revenue income. Table 11.21 shows year wise revenue income of BSCCL during the period from FY2010-11 to FY2018-19.

Table 11.21: Income and Expenditure of Bangladesh Submarine Cable Company Limited

(In Crore Taka)

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19*
Revenue Earned	83.78	121.45	124.84	75.37	54.07	61.86	103.67	140.50	91.04
Net Profit (before tax)	54.48	83.13	109.59	48.81	13.90	17.87	38.95	29.39	30.39
Net Profit (after tax)	22.43	74.48	87.21	36.23	12.91	16.55	31.82	7.33	23.60

Source: BSCCL* up to December 2018

Bangladesh Post Office

Bangladesh Post Office (BPO) renders its service throughout the country by 9,886 offices. BPO provides services with

assistance from its post offices and other organisations.

Total revenue income and expenditure of BPD during January of FY2018-19 is

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Tk.193.08 crore and Tk.478.93 crore. In FY2018-19, Bangladesh Post Office transmitted letter and parcel of 55.43 lakh (December 2018), deposited savings certificates of Tk.9,876.19 crore (up to February 2019), sold stamps of Tk.18.33 crore and revenue stamps of Tk.20.91 crore.

Midterm Reform Work Plan of BPO:

- To convert all post offices as ICT based post office
- To automate all the functions of post offices
- To establish one ATM machine and POS machine in every business hub
- To establish e- Business, m-Business and logistic mail management center in every post office
- To initiate domestic and international commercial postal service
- To extend post office saving bank and postal life insurance
- To introduce Business mail, Ad mail logistics mail and hybrid mail service
- To create IT based entrepreneurs in rural areas
- To establish post e-center in rural areas and thereby provide digital mail service to the public
- To introduce e-commerce service and
- To provide social safety net allowances through postal cash card.

Information and Communication Technology (ICT)

For building Digital Bangladesh with a view to implementing vision 2021, Information and Communication Technology (ICT) Division is working ceaselessly. To make the people, especially the youths, skilled in ICT for implementing Digital Bangladesh; to

ensure connectivity for people at every corner of the country; to make the public service available at the doorstep of the citizens and to work together by providing required facilities to IT industries – remembering these four pillars multiple activities started to fulfill the dream of digital Bangladesh. ICT division has undertaken various initiatives, projects/programs as well as implementing these.

Bangladesh Hi-tech Park

Bangladesh Hi-tech Park Authority was established under ‘Bangladesh Hi-tech Park Authority Law-2010’ in order to promote IT/ITES based hi-tech industry, creation of tech based employment, and building a conducive environment for investment. After its inception the authority is working to establish hi-tech park/software technology park at different places in the country for socio-economic development through ensuring employment for countless youths and creating skilled human resources.

In the first phase, the authority established 28 hi-tech park/software technology park throughout the country. Meanwhile, construction of ‘*Sheikh Hasina* Software Park’ at *Jessore*, ‘*Janata Tower* Software Technology Park’ at *Kawran Bazar*, Dhaka and ‘*Sheikh Kamal* IT Training and Incubation Center’ at *Natore* have been completed. Honorable Prime Minister inaugurated ‘*Sheikh Hasina* Software Park’ at *Jessore* on 10 December 2017 and *Sajib Wajed Joy*, honorable advisor to HPM on ICT inaugurated ‘*Janata Tower* Software Technology Park’ at *Kawran Bazar*, Dhaka on 18 October 2016. At present, 48 and 18

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companies respectively from the inaugurated hi-tech park are running their commercial functions in full phase. Construction of 'Bangabondhu Hi-tech City' at Kaliakoir, Gazipur is running on 355 acre land. With a view to creating employment by attracting domestic and international investors to invest in hi-tech park as well as increasing export income, 14 types of subsidies are offering to the investors. Few mention-worthy subsidies are as follows:

- Tax exemption for IT/ITES companies till 10 years in phases.
- Tax exemption for Park developers till 12 years in phases.
- Exemption of customs duty on capital machineries and construction materials.
- Each hi-tech park will be treated as warehouse stations
- Exemption of vat on utility services.
- Tax exemption on profits from reinvestment.
- Exemption of income tax in phases for foreign workers.

Controller of Certifying Authorities (CCA)

- As per Information and Communication Technology Law 2006 (Revised 2013) government has established Controller of Certifying Authorities (CCA) in 2011 under Information and Communication Technology Division. Mandate of CCA is to introduce digital signature of e-commerce, e-transaction and e-governance in the country to implement Digital Bangladesh.
- Licenses have been given to 5 non-government organisations and to Bangladesh Computer Council as the sole

government organisation. These 6 organisations are providing certificates of digital signatures and other related services to various GO-NGOs and interested individuals. Meanwhile, digital signature has been introduced in e-TIN, e-nothi of a2i, birth registration and online admit card of National University.

- Government officers have been distributed digital signature and trained under a program undertaken by Information and Communication Technology Division.
- CCA has organized seminars on use of digital signature certificate and cyber safety and crime at various universities, offices of district commissioners and divisional commissioners to increase awareness.
- Inter-operability guideline, Auditing Guidelines and Certification Practice Statement have been prepared which enables to start safe e-governance. Cyber tribunal has been established to trial of cybercrimes. Also cyber security strategic guidelines have been formulated. In addition, government e-mail policy 2018 has been formulated to ensure cyber safety and to use digital signature.
- CCA has introduced an online service named 'Digital Evidence Management & Reporting system (DEMRS)' for preservation of crime evidences to ease probe of cases.
- CCA organized workshops named 'Women Awareness on Digital Security' in girls' schools to increase awareness on cybercrime and security. Around 26,500 students of class 8-10 participated in the workshops, acknowledged about cyber-

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crime and explanation on laws related to cyber-crime, learnt how to safely use social communication media and how to escape from cyber-crimes, got contact numbers of related offices for held and how to make complains.

Bangladesh Computer Council (BCC)

During the last decade Bangladesh Computer Council (BCC) has undertaken various initiatives and projects to implement digital Bangladesh reflecting four pillars- ICT infrastructure development & Connectivity, development of skilled human resources, e-government and development of ICT industry. Most of the initiatives become successful. Some of the successes mentioned below:

- National Data Center (Tier-3) has been established at BCC. Meanwhile, data center including sub-stations has been expanded and uninterrupted service is providing from the data center. To make data center sustainable in the long term a business model has already been prepared. Data storage capacity has been increased to 3 petabytes
- National Data Center (Tier-4) is being constructed *Bangabondhu* hi-tech park in *Kaliakoir, Gazipur*. A building of 2 lakh square foot and machines & equipments has already been constructed. Operation of this data center is expected to start by June 2019
- For network management, Network Operation Centre (NOC) has been established at BCC. Under Central Monitoring system of National e-government Network, 17,288 out of

18,434 government offices and 893 video conferencing systems are being monitored by NOC. Free wi-fi zones at 17,288 government offices has been built

- National information and Communication technology development phase-3 (Info-Sarker, phase-3) project is implementing to provide high speed internet connection in 2,600 unions through optical fiber and in 1,000 police offices through Virtual Private Network (VPN). Meanwhile, 1,806 Unions have been connected to optical fiber cable network. The rest 794 Unions will be connected by June 2019
- Software quality testing lab has been constructed at BCC. It has included hardware testing works also. As a result, it will be easy to ensure standard of software and hardware in the country
- Innovation and entrepreneur development academy along with office of IDEA project has been built at BCC which will establish system of innovation culture and
- Digital services along with high speed internet infrastructure have been introduce in *Maheshkhali*, a coastal island of the country under the project ‘Digital Island *Maheshkhali*’. Under the same project education, health, agriculture and e-commerce service is being provided.

