

Government of the People's Republic of Bangladesh
Ministry of Communication
Roads and Railways Division

General Overview

Bangladesh, a densely populated country with an estimated population of 978 persons/sq km, has an extensive and diversified transport system comprising 1,03,536 km roads (20,948 km highways and 82,588 km rural roads), 2834 route km railways, 24,000 km inland waterways, 2 seaports, maritime shipping, and civil aviation etc.. Of multiple modes of transportation the road transport by an order of magnitude in carriage of goods and passengers has apparently been playing the most dominant role. Passenger-km and freight ton-km performed by different surface modes of transport in the year 2005 are given in the table below:

Table 1: Modal Share of Passenger and Freight Traffic

Modes of Transport	Passenger- km (billion)	Passenger Modal Share	Ton- km (billion)	Freight Modal Share
Road	98.4	88%	15.7	80%
Rail	4.2	4%	0.8	4%
IWT	8.9	8%	3.0	16%
Total	111.5	100	19.6	100

Source: Revival of Inland Waterways: Strategies and Options, Report, World Bank 2007

- 1.2 Transport sector's annual shares of GDP at current price is 8.27%. Contribution of the sub-sectors is as follows:

Table 2: Annual sectoral shares (%) of GDP at current price

Sectors Name	Sub-sector	% of GDP
Land Transport		7.53
	Bangladesh Railway	0.08
	Road Transport (mechanised)	5.28
	Road Transport (non-mechanised)	2.17
Water		0.64
Air		0.10
	Total	8.27

Source: Statistical Yearbook of Bangladesh 2008

- 1.3. While there have been advances and improvements in this sector, development is going on at slow pace. There are critical physical and nonphysical barriers to passenger and freight flows, and the continuing low productivity of state-run transport services. Deficiencies like poor maintenance of infrastructure, inadequate integration of multimodal opportunities, non-inclusive transport and emission policy, capacity constraints of ports, and lack of strategic international transit connectivity, presence of mixed traffic in the arterial city roads, lack of proper enforcement of traffic safety regulations, congestion and overloading as well as pollution etc. have limited the ability of the system to respond to user needs. Investment, particularly in asset preservation has been low due to resource constraint.
- 1.4. The Roads and Highways Department (RHD) is a lead infrastructure network development agency already established a corridor based road network all over the country. In RHD's jurisdiction there has been a total 17,546 km paved road of different category, 4507 no. of bridges with a total length of about 130 km and 13751 no of culverts with a length of 54 km. RHD is also responsible

for the operation and maintenance of an extensive ferry system which are being gradually replaced with bridges.

- 1.5. The Local Government Engineering Department (LGED) since preparation of rural development strategy in 1985, has been developing the farm to market roads and has made significant progress in the sector. It has so far constructed total 82,588 km of rural roads and 8,04,635 metre bridges/culverts in the rural areas.
- 1.6. Before 1998, the country was separated into two parts by the mighty river Jamuna. After construction of a 4.80 km long Bangubhandu bridge in 1998 with the assistance of ADB, WB and JICA, the transport sector as well as economy of the country got new dimension and added momentum further. After construction of the Bridge tremendous traffic has been witnessed which was not imagined before its construction.
- 1.7. Bangladesh Railway (BR), a state-run transportation agency of the country, has 2835.04 route Km rail line with 440 nos. stations, 286 nos. locomotives, 1503 nos. coaches and 10226 nos. wagons. Railway connected almost all important places of 44 civil districts and plays important role in the economy. It operates 261 passenger trains (Intercity 68, Mail & Express 66, Local 127) and 55 goods trains including container trains daily on an average. Besides, it operates the largest Inland Container Depot with capacity of 90,000 TEUs.
- 1.8. Bangladesh, as a riverine country with 24,000 km waterways, has a navigable network varying from 5968 km during the monsoon to 3865 km during the dry season. Its inland water transport (IWT) continues to be an important mode of transport not only in the inland movement of freight and passengers but also in the transportation of import and export items through the ports of Chittagong and Mongla. The high degree of penetration of the IWT network providing access to about 25% of the rural household in Bangladesh. IWT is such a mode of transport that has been characterized as the least-cost, environment friendly, less accident-prone and low maintenance cost. Moreover, the development of waterways does not even require any cultivable land rather it's very much helpful for development of other sectors of economy including maintaining ecological balance. In addition, there exists a dynamic private sector which leads most of the sector activities such as cargo transport, port management and ship building etc. that help the sector's contribution to shared growth and poverty reduction.
- 1.9. Bangladesh Inland Water Transport Authority (BIWTA) gives pilotage facilities to about 7,000 inland water vessels. It regulates the movement of about 2000 passenger launches and maintains 21 inland ports along with about 800 launch ghats including terminals. BIWTA's network by category is as follows:

Table 3: BIWTA's network by category

Class	Indicated Draft in metre	Length in Km.	Classification criteria
I	3.6	683	Least Available Draft (LAD) of 3.6 m required to be maintained round the year.
II	2.1	1000	Links major inland ports or place of economic importance to class I routes.
III	1.5	1885	Being seasonal in nature, it is not feasible to maintain higher

			LAD throughout the year
IV	<1.5	2400	These are seasonal routes where maintenance of LAD of 1.5m or more in dry season not feasible.
	Total	5968	

Source: IWT Master Plan Study 2009.

- 1.10. BIWTC is facilitating passenger and cargo movement in the inland waterways and also offshore islands in the public sector vis-à-vis private sectors. It is operating 35 no. of ferries in different routes. On the other hand, ocean shipping performs 80% of the export-import trade. A WB Study reveals that IWT has been the least expensive mode of transport, followed by rail and road (Revival of Inland Water Transport: Options and Strategies, November 2007). As such, considering the facts of least land-man ratio and scarcity of land for further expansion of road networks in the country, IWT sub-sector has given the outmost importance specially dredging various river routes for making them navigable round the year by the present government as mentioned in its Election Manifesto.
- 1.11. Chittagong Port, Mongla Port and Bangladesh Shipping Corporation are playing important role in the export-import activities. Chittagong Port is now considered as the nerve center of Bangladesh economy. Department of Shipping oversees the safety and environmental matters and the regulatory aspects of maritime shipping and also inland waterways. Marine Academy, National Maritime Institute and Deck & Engine Personnel Training Center are imparting education and training on merchant marine.
- 1.12. Bangladesh represents a vehicle fleet of 1.2 million motorized vehicles of different categories with 0.8 million motor driver with legal driving licenses as of 2009. Bangladesh Road Transport Authority (BRTA) is dedicated to regulatory functions like registration and fitness certification of vehicles under existing relevant laws. With the increase of road network and vehicle fleets road safety is a growing concern of the society. Each year officially approximately 3000 persons are being killed and many more sustain disabling injuries. In economic terms, road accident is costing the community in the order of Tk. 5000 crore (US\$850) which is nearly 2% of GDP.

2. Recent Progress so far (Policy and Implementation)

- 2.1. In order to develop a robust and balanced road network that can provide a high degree of mobility, accessibility and safety, there are a good number of policy and planning documents at present. National Land Transport Policy was approved in 2004. Draft Integrated Multi-modal Transport Policy (IMTP) which will cover all transport modes - (i) roads, (ii) railways, (iii) ports and shipping, (iv) inland waterways, (v) air, (vi) rural transport, and (vii) urban transport is in place for approval. Bangladesh Road Master Plan(RMP) 2007 which provides a physical plan for new road construction, and rehabilitation and maintenance was prepared for future development and expansion of road network inline with the regional connectivity. As a part of it RHD has started to implement extensive Zila Road construction program to link all rural areas with the national road network. Creation of a 'Road Fund' is awaiting approval of the government. A 20-Year Strategic Transport Plan(STP) for greater Dhaka to be implemented by the Dhaka Transport Coordination Board has already been approved. Several study projects are under implementation for introduction of MRT, BRT and construction of flyovers, elevated expressway and capacity building of transport related agencies. A Rural Road Master Plan which includes the elements of strategic planning for rural road construction, rehabilitation and maintenance and resources requirements for 20 years from 2005- 2025 is being followed by LGED. Besides, a 20-year

Railway Master Plan is final stage of preparation. In addition to the above, recently several milestone progress in this sector has been made.

- 2.2. The long dream of constructing the Padma Multi-purpose Bridge (PMB), longest (6.15 km) bridge ever in Bangladesh, across the river Padma will be implemented in due time (within December 2013). Consultant already submitted final scheme design of the Bridge. According to final scheme design about US\$2.4 billion will be required to construct the bridge. The bridge will connect 19 districts of the south eastern part of the country with the eastern part including the capital. The bridge links on the Asian Highway route AH-1.
- 2.3. Apart from this, Bangladesh has acceded to the Asian Highway Network recently. The physical alignment of Asian Highway Route in Bangladesh is more or less completed so far. Only up gradation of the AH route network by phases will be required. RHD has taken up a number of projects such as road corridor projects, border road project and access road to land custom stations etc. RHD also introduced computer based central management system (CMS) in order to promote more transparency in the organizational system. Government has also planned to construct Padma Bridge access roads and rail link to capture the full benefit of the Bridge.
- 2.4. In view of cost, safety and environmental congeniality, the modest service of Bangladesh Railway (BR) still widely enjoys the preferred option of the travelers. Remaining as such, promoting BR into a sturdy organization—commercially and financially viable and equipped with professional expertise and more autonomy programs have already been undertaken with the development partners assistance. After coming in power present government has undertaken huge development works to replace BR's old aged rolling stocks, to rehabilitate existing tracks and establish important missing links and reopening of closed tracks, establish important missing links and reopening of closed tracks double tracking of missing portion of Dhaka-Chittagong main corridor, modernizing of signaling systems and railway workshops etc. Besides, Intergovernmental agreement on Trans-Asian Railway network has been accorded by the Cabinet and only is awaiting ratification by the Parliament.
- 2.5. With the development strategy more focused on growth and poverty reduction, and the objective of providing better accessibility to services as well as cheaper modes of transport, the Government has expressed a renewed interest in IWT. This has been translated in policy frameworks such as, National Policy for Ports, Ocean Shipping and Inland Water Transport (2000), Inland Water Transport Master Plan Study (2009), National Strategy for Accelerated Poverty Reduction II (2009).
- 2.6. To contribute to the growth of national economy of Bangladesh by streamlining maritime international trade and accommodating large vessels for enabling to enjoy the "Economy of Scale" and considering the fact of geographic position of Bangladesh to play a major role in regional trade and act as a gateway (i.e. "Regional Hub Port") for the region to the rest of the world construction of a deep sea port at Sonadia, Chittagong is under active consideration of the Government.
- 2.7. With a view to achieving a sustainable, demand responsive, economic & user-friendly road transport system BRTA, BIWTA, BR have undertaken different programs in line with election commitment of present government. BRTA and BR has already digitalizes some of it services and soon other services will be digitalized. If the functionalities of BRTA could be brought under

coverage of IT based software-driven system, the organizational discipline and functional transparency of the sector could be better ensured and ultimately sector will grow up healthily.

- 2.8. Planning and coordination of transport infrastructure facilities and traffic management interventions across greater Dhaka are the core responsibilities of Dhaka Transport Coordination Board (DTCB). The Dhaka City is increasing both in dimension and population strength. It has been experiencing one of its worst time in respect of optimum transport services to the common traveling mass. Traffic congestion is alarmingly increasing day by day. To reduce the congestion, the Government through DTCB has launched to implement Strategic Transport Plan (STP) for safer and more efficient Transportation System. Recently it has been decided to reconstitute DTCB as Dhaka Mass transit Authority with more power and capacity. Pragmatic steps to reduce congestion in Dhaka city by constructing flyovers/overpasses/underpasses at important locations of the City, BRT, MRT etc. on the STP indicated routes, and traffic management have been undertaken.
- 2.9. The National Road Safety Council (NRSC) with the goal of 10-12% percent reduction in the annual number of road accident fatalities by the end of the year 2010(NRSC 2009) was established in 1995, subsequently the National Road Safety Council (NRSC) of Bangladesh formulated and updated.

3. Current and future challenges:

- 3.1. Geo-strategically, Bangladesh's location is very significant and sensitive in terms of Pan-Asian continental surface connectivity. It has the potentiality to be a focal connecting point between SARRC & BIMSTEC countries. The issues like intra & inter-country connectivity, export and growth centers facilitating infrastructure, Asian Highway, Trans Asian Railway Network etc. are the important emerging issues of the country's surface transport strategy.
- 3.2. Construction of about 6.10 km long 2nd Padma Multipurpose Bridge at Paturia-Goalundo point to establish communication network from capital city, Dhaka to the west and the south-west part of Bangladesh as well as with the main land port Benapole, Darshona and the sea port with Mongla is an important issue of the sector. A PDPP of the Project has already been approved.
- 3.3. The Bangladesh Road Master Plan Study 2007 estimated the medium growth forecast of both freight and passenger transport which will be 6.4% per year for the period of 2010-15 and 6% over the master plan period of 2005-25. As such, issues related to road network have been identified by RHD, which are follows:
- i. National Highways are needed to be upgraded into 4/6 lanes with medians to commensurate with higher traffic growth and to improve road safety
 - ii. Construction of new bridges to ensure uninterrupted traffic flow including replacement and major repair of existing old narrow bridges for ensuring safety
 - iii. Road safety to be properly addressed in road design and enforced in traffic management
 - iv. Developing comfortable road network to enhance the tourism industry
 - v. Maintenance needs a higher priority, more resources, improved management reform and better quality standard
 - vi. Institutional reform, and

vii Digitalization of RHD activities

- 3.4 In addition, LGED under the purview of rural road master plan has been developing the farm to market roads. It has prioritized Upazila, Union and Village roads and a target was set for development of additional 22000 Km Upazila and Union Roads in future. The low lying topography requiring a substantial raised earth embankment of all kinds of roads, frequent flooding during monsoon due to global climate change phenomena and washing out the road embankment are emerging of challenges of the sector.
- 3.5 BR network was initially North-South connection based because of riverine land script. Establishment of new East-West connections and missing links (i.e. Dhaka-Bhanga-Jessore, Khulna-Mongla, Dohagari-Gundum-Cox's Bazar, and 2nd Jamuna railway bridge. at Phulchari-Bahadurabad Ghat etc.) and revival of old and abandon tracks are the key areas of interventions. Rehabilitation of existing railway lines, modernization of signaling system and acquisition of new rolling stocks to improve the performance and to cop up with the up coming new situation linking the network with the Trans Asian Railway are the important challenges in front of BR. Apart from these, reducing operational bottlenecks by double tracking all major railway corridors and harmonization of railway tracks by phases, institutional reform, pragmatic role in easing traffic congestion by improving commuter train service in Dhaka and Chittagong cities, proper use of land and other assets, introducing more Public Private Partnership (PPP) in railway sub-sector are important challenges in front of BR
- 3.6 To develop balanced and the least cost transport system in Bangladesh, it is imperative to improve IWT both from infrastructure and technological points of view. IWT sub-sector suffers from (i) siltation problem in inland waterways, (ii) day & night navigational problem of waterways, (iii) shortage of passenger & cargo handling facilities including transit shed at river ports, (iv) Presence of manual loading/unloading of cargo at river ports, (v) underdeveloped rural launch landing stations, inadequate number of water crafts both for river and ocean going etc. Moreover, for transportation of containers by inland waterways to and from two seaports, the container handling facilities have not yet been developed. Decades of inadequate investment, and archaic management practices limited the development of the port sector of the country. Due to geographical position and topological condition of the country rivers are becoming more and more narrow and thin by siltation. As such, implementation of comprehensive capital dredging program is the biggest challenge for the IWT sub-sector. Specific challenges identified in the sub-sector are: (i) Channeling of the existing waterways through massive dredging and procurement of dredgers, (ii) Construction of deep sea port to streamline international trade; (iii) improvement of day and night navigation for water crafts by providing navigational aids; and (iv) Construction of inland container river port for transportation of containers by waterways to/from sea ports etc.
- 3.7. There is lack of strategic international connectivity like road, rail, and inland waterway links with neighboring countries. There are several infrastructure bottlenecks and service constraints. Most of the highway links are primarily two-lane roads and all the rail links are single track. Such limits prevent the port of Chittagong and Mongla from realizing their full potential as an international gateways for the region's international trade, and increasing transport sector revenues. In addition, promoting sub-regional cooperation through harmonization of policies, technical standards, common driving regulations and operating procedures, thereby boosting international rail and road traffic and construction of a new ICD at Gazipur are emerging challenges in this sector.

- 3.8. Bangladesh has the worst road safety record considering international standard. It has been proved that road medians protects accident severity. As such, major national highways requires to be widened to 4 lanes and issue of heterogeneous non-motorized traffic from city's arterial highways needs to be given proper attention. Further, necessity of separate service-lane in the highways to minimize road accident at local level need to be addressed.
- 3.10. The Mega-City Dhaka with a population of 14-15 million (may rise to 22-25 million by 2020) presently cannot cater the demands of the city dwellers in terms of basic transport network. DCC, the largest city corporation of the country, is in the verge of challenges like development and maintenance of transport infrastructures which includes city roads and highways, pedestrian facilities, traffic signals, bus terminals, road surface, footpaths, and underpasses/overpasses etc.
- 3.11. The current transport policy by favors an increase in the number of private vehicles in major urban areas and in usage per vehicle. As a result, private cars are clogging major city roads. Non-inclusive transport policy making and the minimal availability of land for public space worsen the situation. With the assistance of a development partner a separate detailed study is being done in order to introduce MRT in Dhaka city with special emphasis on Bus Rapid Transit (BRT), flyovers in the important intersections and underground/Metro rail and introduction of circular waterways in and around the Dhaka city in line with the recommendations stipulated in STP.
- 3.12. A single mode of transport is unlikely to meet the total demand, given the rapid changes in commodity types, geographic distribution of trade origins and destinations, and development of domestic markets. As such, a secure, dependable and uninterrupted transport network requires inter-modal connectivity and a multimodal market.

4. The way forward/programs/projects to be undertaken:

- 4.1. Taking cognizance of need of rapid socio-economic development and aiming at fulfilling the election manifesto as well as Vision 2021 of the Government a good number of transport infrastructure building projects have been undertake for execution by the transport related agencies like RHD, BR, BBA, LGED, BIWTA and city corporations etc. of the country.
- 4.2. According to final scheme design about \$2.4 billion will be required to construct the Padma Bridge. Development partners already agreed in-principal to co-finance about US\$2211.40 million (WB-1200 million, ADB 550 million, IDB 130 million, JICA 300 million and Abudabi fund 31.40 million). Financing agreement among the development partners need to be expedited. Construction of the 2nd Padma Multipurpose Bridge at Paturia–Doulatdia point over the river Jamuna will incur a primarily estimated cost of US\$1.9 billion.
- 4.3. RHD has proposed to take up 251 new projects along with 98 on going projects under proposed Sixth Five Year Plan (2010-2015). RHD Physical target to be achieved under the 25 prioritized and important new projects during SFYP are as follows:

Table 4 : Roads and Railways Division Physical Target during SFYP in SFYP
/NSAPR-II period.

Sl. No.	Physical Activities	SFYP Targets (2010-15)	NSAPR-II Target (2009-11)
i.	Construction/Widening/Improvement of National & Regional Highways including Asian Highway Network and Padma Bridge access road network and Zilla Roads.	13,225 km	5250 km (including 320 km under PPP projects)
ii.	Construction of new bridges/ overpasses	45,107 meter	21100 meter
iii.	Reconstruction of bridges /culverts	6,229 meter	
iv.	Construction of Tunnel (2 nos.)	3600 meter	-

- 4.4. BR, in line with its proposed 20-year development plan and proposed 6th five year plan (2011-2015) has identified about 127 projects to implement within next five years at a total cost of US\$6215 million, among which 26 nos. important and priority projects will be implemented with development partners assistance. Physical targets under these priority projects are as follows:

Table 5: Summary of BR's target in SFYP and NSAPR-II period

Sl No.	Items Name	SFYP targets (2011-15)	NSAPR-II targets (2009-11)
1	Construction of New rail lines line or re-opening of closed rail lines.	913 km	77.19 km
2.	Double tracking of tracks.	213 Km and 2 nos. bridges	-
3.	Rehabilitation /up-gradation of existing rail lines	1402 Km	375 km
5.	Construction of ICD. (capacity 3,54,000 TEUs)	1no.	1 no.
6.	Procurement of Rolling stocks DE locomotives passenger coaches Wagons	186 nos 450 nos. 1403 nos.	21 nos 50 nos 160 nos
7.	Procurement of rail cars (DEMU/DMU) for introducing modern commuter trains in urban areas	(20+20)=60 sets	30 sets
8.	Modernization of signaling system	113 Nos. Stations	25 nos
9.	Construction of 2 nd Jamuna Rail Bridge at Phulchuri –Bahadurabad point	1 no.	-

- 4.5. The Rural Road Master Plan-2005 of LGED includes the elements of strategic planning for rural road construction, rehabilitation, maintenance. Physical targets for the SFYP has been prepared and shown in the following table:

Table 6: LGD's target for further development of rural roads in SFYP/NSAPR-II

Sl.	Physical Activities	SFYP Targets	NSAPR-II Targets
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No.		(2011-15)	(2009-11)
i.	Construction/Development of Upazila road network.	10,000 km	4000 km
ii.	Development of Union road network	12,000 km	4000 km
iv.	Construction of Bridges/Culverts	4,55,184 metre	1,20,000 metre

4.6. During the period of proposed SFYP period the Ministry of Shipping will undertake activities relating to development of navigability of inland waterways by dredging and resuscitation of dead and dying river routes, maintenance of navigable waterways development of inland river ports, providing navigational aids for smooth and safe movement of cargo and passenger vessels, improvement of waterways in and around Dhaka city for making it navigable and wider, etc.. Moreover, government has put emphasis on regional connectivity. The overall capacity of Chittagong and Mongla Ports needs to be upgraded. As such, following programs will be executed:

- (1) Establishment of Deep sea port at Sonadia, Chittagong;
- (2) Capital dredging on Inland Waterways (Total target 327.6 million cubic metre;
- (3) Procurement of 17 dredgers, crane boats, Tug Boats, House Boats with the accessories;
- (4) Development and modernization of Inland River ports with infrastructure facilities
- (5) Port Master Plan Study
- (6) Establishment of Maritime Navigation and GMDSS Communication System.
- (7) Placement of more navigational aids to the river routes for smooth day-night plying of watercrafts.

4.7. Under the purview of STP construction of a 32-km long elevated express way on BOT/PPP basis, several fly-overs/overpasses/underpasses on some selected intersections, BRT in the several routes and MRT in Dhaka city will be constructed. Moreover, development of waterways in and around Dhaka city which covers a total length of 110 kilometer surrounding of four rivers such as Buriganga, Turag, Balu and Shitalakhya has already been undertaken. In the meantime, dredging in the rivers of Buriganga and Turag (30 km) and construction of landing facilities at 10 places have already been completed. The remaining works with the target of dredging in the rivers of Turag and balu (40 km) and construction of landing facilities at three places including development of Tongi river port are in progress which is expected to be completed by June 2012. Capacity building of DTCCB as a Mass Transit Authority is given top priority. Global experience of BOT/PPP model projects is very much important for the above programs.

4.8. DCC has identified the following programs in next SFYP period.

- (i) Construction of Road Underpass (grade separator) at 10 important intersections of City.
- (ii) Improvement of main arterial roads of city (200 km)
- (iii) Construction of 4 Inter District Bus Terminals (IDBT) to serve the nation, and

4.9. BTRA has identified projects related to capacity building of by establishing of 6 (six) Motor Drivers Training Institutes-cum-Driving Competency Test Centers, (ii) digitizing BRTA activities to improve customer services, and (iii) setting up of vehicle tracking C-C TV/Camera, introduction of chip-based driving license etc..

5. Expected role of/Support from Development Partners

- 5.1. The main development partners in Bangladesh transport sector are the Asian Development Bank, World Bank, DFID, JICA, the OPEC Fund for International Development (OFID), and the Kuwait Fund for Arab Economic Development (KFAED). A number of bilateral agencies have also assisted the rural infrastructure sector.
- 5.2. Bridge Division has identified 4 nos. of important and priority projects which need financial assistance amounting to US\$3269 million.
- 5.3. Other transport related Ministries/Agencies has identified 84 nos. of important and priority projects which need financial assistance of Development Partners. Projects identified for foreign financing are given in the annexures. Summary of number of projects and resources requirement is given below:

Table-6 : Summary of support from Development Partners.

Department/ Organization	No. of Projects	Foreign assistance to be required during SFYP period (in billion US\$)	Foreign assistance to be required during NSAPR II period (in billion US\$)
Bridges Division	4	3.629	2.493
MOS/BIWTA	7	4.178	0.711
RHD	23	1.918	1.918
LGED	13	1.524	0.750
BR	26	3.572	3.572
DCC	3	0.470	0.142
BRTA	3	0.046	0.046
BRTC	8	0.428	0.142
MOCAT	1	7.140	-
Total:	88	23.085	10.102

- 5.11. Projects identified to implement during the Ist Phase of STP may require US\$2.0 billion depending upon the design under the on going study. Pragmatic steps already undertaken to implement a 32 km long Dhaka Elevated Expressway and BRT in several routes. Further, in view of fast growing transport demand and freight traffic, the conceptual design for the Dhaka–Chittagong Access Controlled Expressway has been prepared by the RHD under the ADB-financed Road Maintenance and Improvement Project. These projects will be implemented on BOT/PPP basis. In this connection, new authorities with appropriate legal framework need to be made. As such, global experience of BOT/PPP model projects may be replicated in the above projects. DPs cooperation is necessary in this regard.