

UPDATED ROAD MAINTENANCE FINANCING AND EFFECTIVENESS

A. Introduction

1. The purpose of this note is (i) to monitor the status of road maintenance financing and effectiveness since the approval of Asian Development Bank loans for South Asia Subregional Economic Cooperation (SASEC) Road Connectivity Project in 2012 and SASEC Dhaka–Northwest Corridor Road Project, Phase 2 in 2017, and (ii) to assess the sustainability of the road subsector.¹

2. The analysis covers national, regional, and zilla (district) roads. This note (i) discusses the background of the strategy to clear the maintenance backlog by the Roads and Highways Department (RHD) and by the Bangladesh Bridge Authority (BBA), (ii) presents the maintenance financing and its effectiveness between 2012 and 2018, and (iii) summarizes the findings and recommendations.

B. Background

3. **Road network conditions in 2011.** Most of the project roads are administered by RHD, except the approach roads to Jamuna Bridge that come under the authority of BBA.

4. RHD is currently responsible for the management of national, regional, and zilla roads. Table 1 presents the findings of a survey of road conditions conducted in 2010–2011. Roads under construction and in flooded areas were not included in the survey. About 61% of RHD's roads was in poor–very bad condition.

Table 1: Survey Results of Roads and Highways Department Road Network Conditions, 2010–2011
(km)

Roads	Good	Fair	Poor	Bad	Very Bad	Total Surveyed
National	755.62	1,441.12	742.83	344.70	77.97	3,362.24
Regional	260.53	1,403.06	1,357.04	475.07	106.78	3,602.48
Zilla (District)	422.19	1,503.27	3,233.51	2,216.27	312.95	7,688.19
Total	1,438.34	4,347.45	5,333.38	3,036.04	497.70	14,652.91

km = kilometer, RHD = Roads and Highways Department.

Source: Roads and Highways Department estimates.

5. **Backlog in 2011.** The roads in poor–very bad condition, as summarized in Table 2, were estimated to form the backlog of roads that require rehabilitation.

¹ ADB. 2012. [Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loan and Technical Assistance Grant to the People's Republic of Bangladesh for South Asia Subregional Economic Cooperation Road Connectivity Project](#). Manila. (Loan 2949-BAN), and ADB. 2017. [Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility and Technical Assistance Grant to People's Republic of Bangladesh for South Asia Subregional Economic Cooperation Dhaka–Northwest Corridor Road Project, Phase 2](#). Manila. (MFF 0103-BAN).

Table 2: Proportion of Roads and Highways Department Roads in Good–Fair and Poor–Very Bad Conditions, 2011
(km)

Road Class	Total Length	Good–Fair Condition	Poor–Very Bad Condition
National	3,537	2,311 (65%)	1,226 (35%)
Regional	4,275	1,974 (46%)	2,301 (54%)
Zilla (District)	13,458	3,377 (25%)	10,081 (75%)
Total	21,270	8,402 (39%)	12,868 (61%)

km = kilometer, RHD = Roads and Highways Department.

Source: Roads and Highways Department estimates.

6. **Maintenance backlog clearance strategy.** To improve the road network condition, in the loan agreement for SASEC Road Connectivity Project (footnote 1), the Government of Bangladesh committed to (i) provide sufficient budget to RHD for routine and periodic maintenance of all maintainable roads required as per road conditions; (ii) ensure that RHD eliminates the maintenance backlog in 10 years by fiscal year (FY)2023–FY2024 for national and regional highways; and (iii) reduce to a maximum of 30% of the total district road length the annual clearance of maintenance backlog, to at least 120 kilometers (km) for national highways, 230 km for regional highways, and 350 km for district roads.

C. Clearance of Road Maintenance Backlog

7. **2018 survey and estimate.** Based on the results of a survey conducted by RHD in May 2018, the road conditions have improved, with 26% of surveyed roads in poor–very bad condition.

Table 3: Proportion of Roads and Highways Department Roads in Good–Fair and Poor–Very Bad Conditions, 2018
(km)

Road Class	Total Length	Good–Fair Condition	Poor–Very Bad Condition
National	3,760.80	2,961.6 (79%)	799.2 (21%)
Regional	3,821.80	2,902.1 (76%)	919.7 (24%)
Zilla (District)	10,393.70	7,381 (71%)	3,012.7 (29%)
Total	17,976.30	13,244.7 (74%)	4,731.6 (26%)

km = kilometer.

Source: Roads and Highways Department estimates.

8. **Speed of maintenance backlog clearance.** By comparing the road network conditions in 2011 and 2018, the average annual clearance in the last 7 years was derived and shown in Table 4. Overall, the average annual target for backlog clearance is higher than the target, and RHD has been well on track in clearing the maintenance backlog but with different levels of performance for different categories of roads. While RHD has reached the average annual targets for backlog clearance on zilla roads (176% of the target), the clearance of maintenance backlog on national roads (59% of the target) and regional roads (80% of the target) have been behind the planned speed of implementation. It is observed that since widening of national and regional roads by using funds from the government and development partners are planned, the available road maintenance fund has mainly been allocated for zilla roads.

Table 4: Status of Clearance of Maintenance Backlog, 2011–2018
(km)

Road Class	Total Clearance of Maintenance Backlog	Average Annual Clearance	Target as per Loan Agreement ^a
National	495.18	70.74	120.00
Regional	1,282.50	183.21	230.00
Zilla (District)	4,306.56	615.20	350.00
Total	6,084.24	869.15	700.00

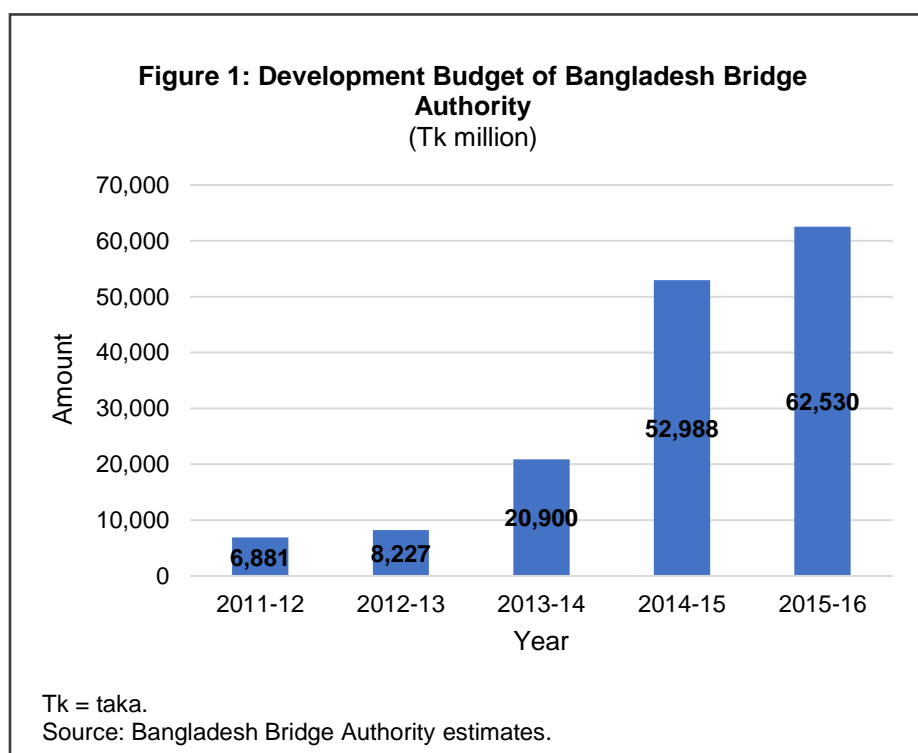
km = kilometer.

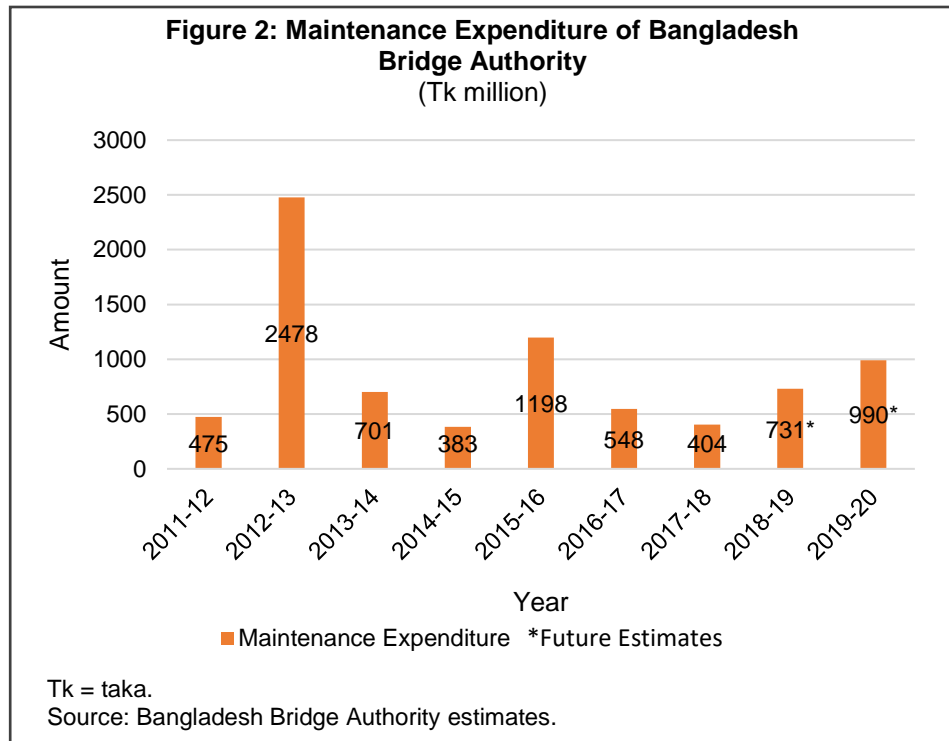
^a South Asia Subregional Economic Cooperation Road Connectivity Project.

Source: Roads and Highways Department estimates.

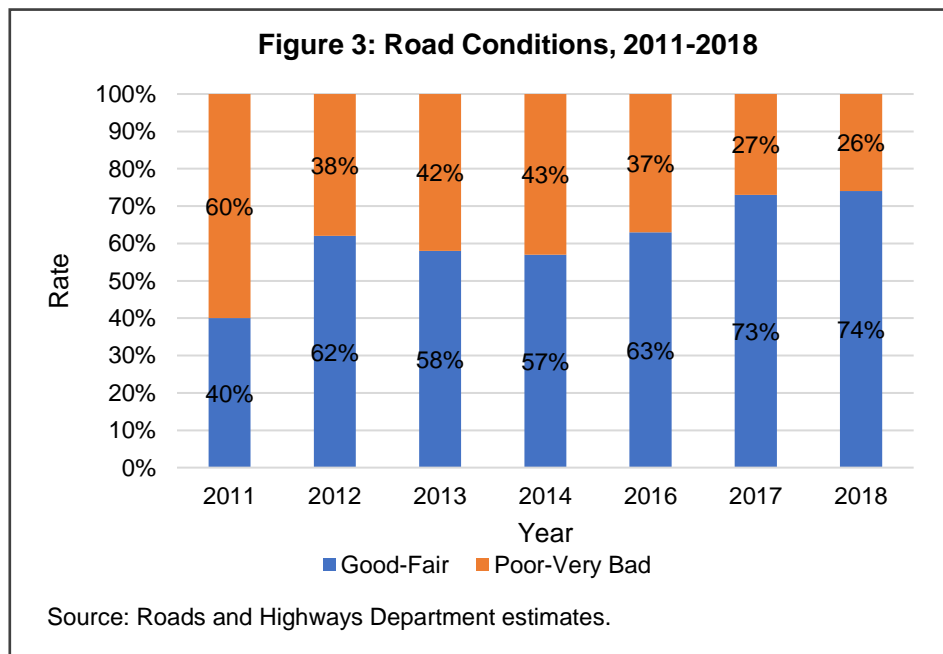
9. Under this project, BBA maintains the national road on Jamuna (Bangabandhu) Bridge and its approach roads, with a total length of approximately 36 km. As per a recent survey, their condition is considered as good–fair.

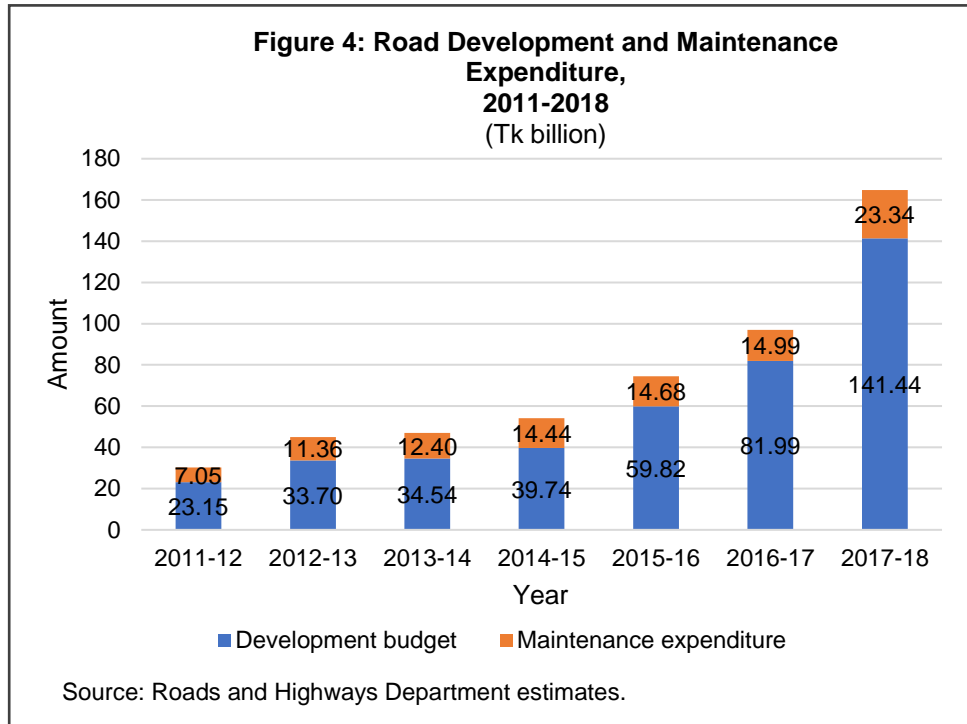
10. **Road maintenance financing and road conditions.** The road maintenance financing and road conditions of BBA are illustrated in Figures 1 and 2. The development budget of BBA has been continuously increasing over the past few years. Maintenance is currently decided through regular inspection by BBA, based on field input on actual condition of roads. Based on the positive trend of the development budget, the maintenance expenditure is expected to follow that trend and to increase accordingly.





10. A close look at the trend of road maintenance financing and road conditions under RHD, as illustrated in Figures 3 and 4, shows that (i) the RHD cleared a large portion of maintenance backlog in 2011–2012, maintained the road network conditions at the same level until 2014, and expedited the implementation in 2016; and (ii) RHD expenditures on both development and maintenance have increased at a similar rate.





D. Findings

11. These findings indicate a positive trend in achieving the long-term sustainability of the road subsector provided that RHD and BBA can accelerate the backlog clearance and improve performance in national, regional, and zilla road maintenance.