Validation Report

Reference Number: PCV: BAN 2010–19
Project Number: 33243
Loan Numbers: 1789 and 1790
August 2010

Bangladesh:
Road Maintenance and Improvement Project

Independent Evaluation Department

Asian Development Bank
ABBREVIATIONS

ADB – Asian Development Bank
ARMP – Annual Road Maintenance Plan
CIC – corridor improvement component
CPAR – Chittagong Port Access Road
DFID – Department for International Development
EIRR – economic internal rate of return
FIRR – financial internal rate of return
IED – Independent Evaluation Department
JBIC – Japan Bank for International Cooperation
OCR – ordinary capital resources
PCR – project completion report
RHD – Roads and Highways Department
RMC – road maintenance component
RRP – report and recommendation of the President

NOTE
In this report, “$” refers to US dollars.

Key Words
Bangladesh, ADB, Asian Development Bank, highways, Independent Evaluation Department, lessons, performance evaluation, project completion report, road maintenance, roads, transport

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B. Project Description

(i) **Rationale.** Efficient transport systems are essential for poverty reduction and economic development in developing countries. Transport efficiency in Bangladesh can be advanced by upgrading road maintenance—improving periodic maintenance, in particular. Road maintenance is a cost-effective way to boost transport efficiency and to provide the rural poor with better access to economic opportunities and services in areas where poverty is widespread.

To accommodate rapid growth in traffic it was necessary to expand the capacity of the Southeast Road Corridor from Dhaka to Chittagong, the country’s most important highway. Efficient transportation between the country’s capital city and its main port is essential for economic growth.

(ii) **Impact.** Since the road transport industry in Bangladesh is highly competitive, it was expected that transport operators will pass on savings in transport costs from the Road Maintenance and Improvement Project (the Project) to transport users in the form of lower freight rates and passenger fares.
The CIC was expected to contribute to poverty reduction and pro-poor growth by alleviating the transport bottleneck on the strategic Southeast Road Corridor. It was to stimulate investment and lead to more employment opportunities. The CIC would also extend the area outside Chittagong from which people can travel to work on a daily basis, opening up access to employment for a wider and more poverty-afflicted catchment area. Better access to Chittagong would also have important human development impacts, including those from education, medical services, and family and community contacts.

The road maintenance component (RMC) was expected to contribute to better transport efficiency on existing roads in areas where poverty was widespread. The aim was to enable poor people to participate in economic opportunities and employment, and avail themselves of social services. The RMC road selection criteria targeted districts with rates of income poverty at least equal to the national average; this would further help reduce poverty.

(iii) Objectives or Expected Outcomes. The Project objectives were to (i) improve transport efficiency on existing roads nationwide by strengthening the governance of road maintenance and by conducting priority periodic maintenance works, targeting areas with a high incidence of poverty; (ii) improve transport efficiency on the strategic Southeast Road Corridor by upgrading road conditions and boosting capacity; and (iii) increase private sector participation in the delivery of road infrastructure by establishing the enabling policy and legal environment, and by implementing a toll-road demonstration project. The Project was to establish the policy and implementation framework to ensure sustainable maintenance of the existing road network. The Project was also (i) to contribute to better governance by supporting the introduction of an updated National Land Transport Policy; (ii) to coordinate support from the main road-funding agencies in boosting government budgetary resources and institutional capacity for road maintenance; and (iii) to improve air quality and reduce traffic congestion in Chittagong City.

(iv) Components and/or Outputs. The Project had two components, each with investment and policy elements. The RMC addressed the policy, planning, implementation, and financing requirements for establishing adequate maintenance of the Roads and Highway Department’s (RHD) road network on a sustainable basis. The investment element of the RMC financed a 3-year period of priority road maintenance activities under the Annual Road Maintenance Plan (ARMP). For each of the 3 years, the RMC covered periodic maintenance of an estimated 250–400 kilometers (km). The main policy elements covered (i) preparing and approving a National Land Transport Policy that would include improving the policy framework for road maintenance; (ii) rationalizing budgeting for maintenance within the revenue budget and annual development plan; (iii) extending the use of private sector contractors and supervision consulting services in doing maintenance works; and (iv) developing proposals and an action plan for establishing additional sources of financing to enable the ARMP to eventually be fully financed from domestic sources on a sustainable basis.

The CIC improved sections of the Southeast Road Corridor and established the policy and legal framework for more private sector involvement in the road sector. The investment element covered (i) overlay and widening of the Chandina, Comilla, and Feni bypasses (52 km) of the Dhaka-Chittagong highway; (ii) upgrading and widening of the Feni-Chittagong section (47 km); (iii) construction of Chittagong Port Access Road (CPAR) (12 km), the first limited-access toll road to be operated and maintained by the private sector in Bangladesh; and (iv) detailed design for an ensuing road sector project to Bangladesh. The policy element of the CIC concerned improvements in the policy and legal environment to allow private sector participation in delivery of road infrastructure. The CPAR subcomponent established (i) the policy and legal framework to enable the private sector to undertake road investment, toll collection, and operation and maintenance responsibilities; and (ii) legal provision for access control on main roads.
C. Evaluation of Design and Implementation (project completion report assessment and validation)

(i) Relevance of design and formulation. The project completion report (PCR)¹ states that the Project was formulated in response to the Government’s infrastructure development focus on the country’s five major road corridors. The Project was consistent with the sector strategy for the road subsector set out in the Five-Year Plan, the 1998 Bangladesh Integrated Transport System Study, and the 1994 Road Master Plan. The Project was developed in accordance with the country operational strategy of the Asian Development Bank (ADB), which emphasized the importance of the road network for regional cooperation and of developing the capacity of institutions that plan, manage, and maintain the transport system. The poverty reduction objective was reiterated in the partnership agreement on poverty reduction between ADB and the Government. Based on these documents, the PCR concludes that the Project was, and continues to be, highly relevant to the needs of the country’s transport sector.

The report and recommendation of the President (RRP)² puts less emphasis on these documents to justify the Project and more on the issue of transport efficiency and the poor’s access to markets and services by means of an affordable and reliable transport system. The PCR should have had a similar focus regarding relevance. Nevertheless, the validation concurs that the Project was, and continues to be, highly relevant because the links between transport efficiency and poverty reduction as discussed in the RRP are likely still valid.

The RRP identifies five main lessons from experience in road projects: (i) there is a need for careful attention to project formulation and design; (ii) implementation must take account of the capacity of road sector institutions and private contracting industry; (iii) during project formulation and design, and through policy dialogue, ADB should pay special attention to road maintenance issues; (iv) more direct means of cost recovery need to be devised and introduced; and (v) environmental impact assessment is needed to ensure that potential adverse impacts on the environment are identified and mitigated. The PCR does not mention or make any assessment of how these lessons were incorporated into the Project’s design. Nevertheless, the Project as formulated in the RRP addressed each of the above 5 lessons, although not explicitly.

The PCR adequately describes the process of formulating the Project but does not assess the formulation process.

(ii) Project Outputs. At appraisal, the investment element of the RMC was to finance a 3-year program of priority road maintenance activities under the annual road maintenance plan. For each year, the RMC was to cover periodic maintenance of an estimated 250–400 kilometers (km) for a minimum of 750 km and a maximum of 1200 km. However, due to delays, the RMC was compressed from 3 years to 1 year and was implemented only during fiscal year 2005. A total of 369.5 km of roads received maintenance under the Project, less than 50%.

The CIC was to improve sections of the Southeast Road Corridor between Dhaka and Chittagong. The CIC component was divided into four civil works contracts for a total of 113.2 km of road improvement, slightly more than the length estimated at appraisal (111.0 km) due to a change in the length of the Chittagong Port access road after realignment.

The policy measures were implemented in all but two cases. The Government was to shift maintenance under the annual development plan to an expanded revenue budget within a stipulated period. In 2003, the Government advised that a proposal had been initiated to show a

¹ ADB, 2009. Completion Report: Road Maintenance and Improvement in Bangladesh. Manila
² ADB, 2000. Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Road Maintenance and Improvement in Bangladesh. Manila
separate maintenance budget, but by 2009, periodic maintenance was still not an item in the revenue budget. The Government also committed that within 2 years of loan effectiveness, it would carry out a review of mechanisms for funding of the ARMP from domestic sources. It also agreed that within 4 years from loan effectiveness, it would implement a time-bound action plan for meeting the annual costs of maintaining all roads under RHD’s jurisdiction to an acceptable standard. Although a review was undertaken and a draft road fund act was prepared, it has not yet been approved by the Cabinet, and the fund and time-bound action plan were never established. Additionally, a road maintenance fund proposal was undertaken and was to be submitted to the Cabinet by December 2004. In March 2005, the Government wanted to change the proposed fund from an autonomous fund with a board into a fund receiving its monies through the government budget. This was not done, however, and the fund was still not established by 2009.

(iii) **Project Cost, Disbursements, Borrower Contribution, and Conformance to Schedule** (as relevant to project performance). At appraisal, the project cost was estimated to be $160.2 million equivalent, but actual cost was only $117.7 million. The foreign exchange cost was estimated at $75.6 million equivalent (about 47% of total project cost), including $4.7 million for interest during construction. The total local currency cost was estimated at $84.6 million equivalent (about 53% of total project cost), including an estimated $28.5 million equivalent for taxes and duties, and about $6.1 million equivalent for land acquisition and resettlement. The actual project completion cost estimated by the PCR was $117.77 million equivalent: a foreign exchange cost of $48.13 million equivalent (about 41% of total project cost) and a local currency cost of $69.64 million equivalent (59% of total project cost).

The appraisal estimate of the RMC was $36.0 million, excluding physical and price contingencies. The actual cost was $26.76 million. The appraisal estimate for civil works under the CIC was $85.6 million, excluding physical and price contingencies, and $100.83 million including them. The actual cost of the CIC was $68.61 million, as all bids for civil works contracts were significantly lower than the appraisal estimates. Also, devaluation of the taka relative to the dollar occurred, and the special drawing right exchange rate also fluctuated against the dollar. The appraisal estimate for consulting services for construction supervision was $8.20 million, compared with actual expenditures of $7.84 million. Although the consulting service inputs increased due to delays, the overall cost did not. Savings from international consultant inputs were diverted in part to national consultants. The estimate for land acquisition and resettlement was $6.10 million. The actual cost was $9.55 million, due to increases in the price of land and compensation. The PCR gives the impression that the lower actual cost was due solely to lower-than-expected bids, and a fall of the taka against the dollar and the special drawing right. It should also have been pointed out that only about half of the expected minimum 750 km of roads under the RMC received maintenance, thus reducing the amount spent under the component.

No disbursement schedule was included at appraisal. Nevertheless, loans were disbursed more slowly than envisaged due to procurement and resettlement problems that caused the slow progress under the civil works contracts. By Project completion, the total amount requested to be canceled from the loans was $38.624 million, or 41% of the original total loan amounts. The Government’s contribution to the Project also fell from $66.2 million at appraisal to $50.17 million.

At appraisal, the Project was estimated to take 4 years, including preconstruction activities, starting in June 2000 and ending by June 2004. Actual implementation of all components took approximately 89 months, an overall delay of about 43 months. By April 2005, the CIC was 60% physically completed, but contracts under the RMC had not been awarded by then. The PCR provides no explanation for this, although ADB’s project files and the Government’s PCR indicate that land acquisition, resettlement, and alignment issues caused delays in the implementation of the CIC. The main reason given for delays in RMC implementation was the protracted government pre-qualification procedures. The delays in implementing the RMC resulted in the Government requesting an extension to the loan closing date of about 2 years.
A second extension was requested in April 2007, because the contract for the feasibility study and detailed design for the Dhaka–Chittagong Highway progressed more slowly than anticipated, as did government approval procedures for the interim operation and maintenance contract of the Chittagong Port access road. In June 2008, the Government made a third request for a 4-month extension of the closing date of the Asian Development Fund (ADF) loan from 30 June 2008 to 31 October 2008. The Government Purchase Committee’s approval of the feasibility study of the Dhaka–Chittagong Highway was delayed by about 12 months to 22 May 2008. The approval also included additional tasks to prepare a concept design of the highway, and to develop a strategy to determine the potential role of the private sector in financing, constructing, operating, and maintaining expressways.

(iv) Implementation Arrangements, Conditions and Covenants, Related Technical Assistance, and Procurement and Consultant Performance. The implementing arrangements were as envisaged at appraisal. For the implementation of the RMC, an additional RHD chief engineer acted as the project director for the contracts under the first-year cycle. For the second- and third-year cycles, he was responsible for overseeing subproject selection, procurement, monitoring, and reporting, thus acting as the project coordinator. Contract administration and other day-to-day implementation aspects were delegated to RHD zonal offices. The zonal additional chief engineers were supported by superintending engineers, executive engineers, and other staff members. Executive engineers acted as managers of the subprojects and were responsible for overall implementation, administration, and financial management of subprojects. For the implementation of the CIC, the project director was assisted by another project director (superintending engineer), one executive engineer, and three RHD project managers.

The government and executing agency complied with most loan covenants. The main covenants not complied with related to sustainable road maintenance funding. The related issues are discussed above in the third paragraph of the Project Outputs section. There was only partial compliance with the covenants on performance audits, and the monitoring of poverty and performance indicators as set out at appraisal. Other covenants were complied with after their due dates, including (i) private sector participation, (ii) maintenance budgeting, and (iii) government review of maintenance expenditures under the revenue budget.

No technical assistance was associated with this loan. Procurement was generally in accordance with ADB’s guidelines, with some deviations as approved by ADB. Procurement for the RMC followed different arrangements from those envisaged at appraisal. After delays due to protracted prequalification procedures and the formalities of Government approval, ADB agreed with RHD to reduce the bidding period to a total of 45 days and to implement all contracts in parallel during FY2005. For the second-year and third-year cycles, ADB agreed that international competitive bidding be carried out instead of national competitive bidding. The reasons were that (i) allowing firms prequalified to bid under the first-year cycle to bid for contracts under the second- and third-year cycles would remove or substantially reduce delays; (ii) procurement through national competitive bidding would not allow the proposed firms to be paid in foreign currency as expected; (iii) the prequalified firms would be familiar with the bid documents and procedures; and (iv) already approved bid documents and procedures in the first-year cycle could be used. All contracts were awarded in June 2005. Procurement for the CIC proceeded, as envisaged at appraisal, through international competitive bidding. An issue of “double-discounting” arose, which delayed bid evaluation, but only moderately.

Consultants were recruited in accordance with ADB’s Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers and were mobilized in October 2001. At appraisal, the total consultant supervision comprised about 178 person-months of international consultants and 880 person-months of national consultants, with an overall consulting service period estimated at 42

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months. Due to delays in project implementation, the actual total consultant supervision was 222.15 person-months of international and 1,159.09 person-months of national inputs over 66 months. Consultant performance was rated satisfactory by the PCR. However, a domestic consultant was not recruited to carry out poverty reduction monitoring. Thus, the project completion report contains no details of the monitoring of the poverty reduction impact of the Project. Nevertheless, the PCR states that the consultants performed in accordance with their terms of reference, so the validation concurs with the PCR that a satisfactory rating is warranted.

(v) **Performance of the Borrower and Executing Agency.** The PCR rates the performance of the Borrower and executing agency satisfactory. RHD effectively managed physical implementation of the Project, although approval delays occurred at various stages of procurement due to bureaucratic procedures. Civil works were also delayed because land acquisition and resettlement were not always completed on time. The Borrower made available necessary counterpart funds in a timely manner, and there were no undue delays in approving payments to the consultants and contractors. It was expected that RHD, assisted by consultants, would establish systematic project performance monitoring. The key indicators for monitoring were set out in the design and monitoring framework. Although some limited information such as traffic data is available, monitoring was not undertaken. There is no evidence that project benefit monitoring surveys were conducted on poverty, employment, earnings, and social indicators in the project area. Nevertheless, the validation concurs with the PCR that a satisfactory rating is warranted.

(vi) **Performance of the Asian Development Bank.** The Project was originally administered from ADB headquarters, but administration responsibility was transferred on 1 January 2004 to the Bangladesh Resident Mission. During implementation of the Project, ADB conducted 16 missions, in which 7 project officers were involved. The role performed by the ADB missions in providing advice on technical issues, preparing and evaluating bid documents, and matters of loan administration was recognized by the executing agency. It appears, however, that none of the missions followed up on the issue of benefit monitoring and evaluation with the executing agency or the Government. It was mentioned in several mission reports that it would be included in the executing agency’s PCR, but what is available is very limited. The PCR rates ADB’s overall performance satisfactory. The validation concurs with the PCR that a satisfactory rating is warranted.

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**D. Evaluation of Performance** (project completion report assessment and validation)

(i) **Relevance.** The PCR rates the Project as highly relevant. The PCR's rating covers all subcriteria of relevance, and gives a fair and accurate assessment of each subcriteria. The validation concurs with the PCR and rates the Project as highly relevant.

(ii) **Effectiveness in Achieving Outcome.** The objectives of improving transport efficiency on the Southeast Road Corridor by upgrading road condition and increasing capacity; increasing private sector participation by establishing an enabling policy and legal environment; and implementing a toll-road demonstration project were achieved. However, the objectives of providing maintenance to 750–1200 km of roads, and establishing a budgetary mechanism to ensure that road maintenance would have a secure and sustainable source of funding were not. In the first objective, for instance, road-user benefits were achieved through reduction in vehicle operating cost by 20% and travel time savings in a range from 20 minutes to 45 minutes. Passenger and freight traffic growth also increased from 1998–2005 and fluctuates for each Project road section between 6 to 11%. The Project managed to provide maintenance to less than half of the minimum length expected and an explicit item in the annual revenue budget for road maintenance was not instituted. Therefore, maintenance for roads in the poorer regions of the country, which would have resulted in significant poverty reduction, fell substantially short of what was envisaged at appraisal. Moreover, future road maintenance is at risk without explicit fund allocation in the revenue budget.
The PCR rates the Project effective solely on the basis of achieving the objective of improving transport efficiency on the Southeast Road Corridor. In the validation’s view, this is not sufficient justification since the importance of the investment and policy objectives of the RMC are as great, if not greater, than those of the CIC in terms of poverty reduction. Therefore, the validation does not concur with the PCR and rates the Project as less effective.

(iii) **Efficiency in Achieving Outcome and Outputs.** The PCR rates the Project efficient and bases the rating on the economic internal rate of return (EIRR) and the financial internal rate of return (FIRR). FIRR is a measure of sustainability and should be discussed in the sustainability section of the PCR.

Although a calculated EIRR is an adequate measure of efficiency in many cases, it is usually insufficient in cases where projects comprise parts of networks, such as roads, power systems, etc. It would have been preferable in the case of this PCR to include an assessment of the road transport master plan from which the Project originated. The assessment would include a discussion of the objectives that the master plan wishes to achieve, the constraints faced, and the assumptions used. Such an assessment would provide an indication of the Project’s cost effectiveness. The PCR mentions that the Project originated from a road master plan, so it was reasonable to assume that the Project was meant to be cost-effective at the time the plan was produced.

The approach to the EIRR calculation is acceptable. At appraisal, the EIRR for the CIC as a whole was 37.0%, while the recalculated EIRR for the CIC was 28.6%. Although actual costs were lower than estimated costs at appraisal, actual benefits were also lower because less than half of the roads received adequate maintenance. It is not clear how labor costs were valued in the analysis. Since road construction and maintenance are labor-intensive undertakings and Bangladesh is a labor surplus economy, the approach to the shadow pricing of labor is important information. Also, traffic forecasts after 2012 seem to be high at 7.5% growth per annum. It would seem that congestion on the road would be experienced soon at that growth rate and that economic benefits would begin to decline. Therefore, the EIRR calculations may be overestimated.

The bureaucratic efficiency with which ADB supervised and monitored the implementation of the Project is not discussed in the PCR. However, evidence in the PCR and ADB records indicate that ADB proceeded in an efficient manner and any delays in project implementation were not due to ADB. Extensions of loan closing dates and consulting services contracts, and procurement and resettlement issues were considered and adjudicated in a timely manner. In essence, time overrun did not lead to cost overrun. The EIRR takes into consideration delayed benefits and costs as well as lower benefits and costs, with the combined effect being that the EIRR (28.6%) is lower than the EIRR estimated at appraisal (37%). The EIRR is within the range for a rating of highly efficient (EIRR > 18%), but considering the delays in project implementation and the possibility that the EIRR is overestimated, the validation concurs with the PCR’s rating of efficient.

(iv) **Preliminary Assessment of Sustainability.** The PCR states that there is an insufficient flow of funds to cover routine and periodic maintenance costs, and the absence of regular maintenance due to budget constraints has resulted in a considerable backlog of maintenance work. Because heavy truck traffic increased substantially, several areas on the RMC roads, completed in 2007, already need repairs. The large increase in heavy vehicles along the Project roads and their overloading will continue to damage roads as long as control measures on vehicle load limits are not enforced. Under the policy component of the Project, adequate maintenance financing sources are yet to be established. Although most road sections examined by the PCR mission were still in good condition, several areas need immediate attention.
Given the significant increase in heavy truckloads due to lack of vehicle weight control and the absence of a dedicated source of road maintenance funding, the PCR rates the sustainability of the Project roads as *less likely*. Moreover, the FIRR was recalculated for the toll-funded Chittagong Port access road at −4.3%, which is considerably lower than the 4.8% calculated at appraisal, and lower than the recalculated weighted average cost of capital of 5.4%. The extremely low FIRR is due to the actual traffic being only 27% of the traffic estimated at appraisal. The negative FIRR implies financial difficulties for the private sector concessionaire that operates the road and adverse consequences for the sustainability of that road. Therefore, the validation concurs with the PCR's sustainability rating of *less likely*.

(v) **Impact** (both intended and unintended). An initial environmental impact study was prepared by the Government, and the assessment found that neither component would have significant adverse environmental impacts. The Project complied with the mitigation measures and monitoring requirements cited in the environmental management and monitoring plan prepared by consultants and approved by ADB.

Substantial socioeconomic benefits from the Project were expected at appraisal. The PCR provides some anecdotal evidence of socioeconomic development, but it is not clear whether this development was due to the Project. It may just as likely have occurred without the Project. The PCR also states that, at appraisal, the Project was to set targets for employment of women in road construction and forestation activities, as well as to require contractors not to differentiate wages based on gender. The target was that 50% of those employed during construction would be women associated with slope-protection works. However, the consultants did not monitor this in their monthly progress reports. The PCR mission noted that only a few women were engaged in the turfing of embankments, as most women in the area are conservative and not usually employed in outside work.

The Project’s focus was mainly on investments in roads and highways, and policy reforms with no explicit initiatives to strengthen or reform institutions. Therefore, the PCR does not assess the institutional impact of the Project. However, an objective that could be considered an institutional reform was the rationalization of budgeting for maintenance within the revenue budget of the annual development plan. The Government was to shift maintenance under the annual development plan to an expanded revenue budget within a stipulated period. Unfortunately, by 2009, periodic maintenance was still not a separate item in the revenue budget. The Government also committed that it would carry out a review of mechanisms for funding of the ARMP from domestic sources and agreed that it would implement a time-bound action plan for meeting the annual costs of maintaining all roads under RHD's jurisdiction to an acceptable standard. Although a review was undertaken and a draft road fund act was prepared, it has not yet been approved by the Cabinet, and the fund and time-bound action plan were never established. Additionally, a road maintenance fund proposal had been undertaken and was to be submitted to the Cabinet by December 2004. This was also not done, and the fund was still not established by 2009.

At appraisal, the Government prepared a summary land acquisition and resettlement plan. It was estimated that under the CIC component, about 58.6 hectares (ha) of land would be required and a total of 8,229 people would be affected. In fact, a total of 17.8 ha of land were required and only 2,366 people were affected and paid compensation. About 34.2 ha of government land was transferred to RHD.

The PCR makes no assessment of the Project’s impact. In the validation’s opinion, based on facts and figures in the PCR, the Project’s environmental, socioeconomic, and institutional impacts are *modest*. 
E. Overall Assessment, Lessons, and Recommendations (validation of project completion report assessment)

(i) **Overall Assessment.** The Project had strong economic development and poverty orientations, and was in line with ADB’s country operational strategy and the Government’s development objectives. Therefore, the validation rates the project as *highly relevant*, concurring with the PCR’s rating. While the objectives of the CIC component were achieved, the investment and policy objectives of the RMC component were not. Since the RMC component was focused on the poorer regions of the country, the poverty reduction impact was substantially below expectations. Thus, the validation rates the Project as *less effective*, not concurring with the PCR's rating of *effective*. The Project was based on the 1998 Bangladesh Integrated Transport System Study and the 1994 Road Master Plan and, therefore, is likely least cost. The Project also experienced time overrun, but this did not translate to cost overrun. Along with EIRRs that were substantially higher than ADB's standard cutoff of 12%, the validation rates the Project as *efficient*, concurring with the PCR's rating. The Government's budget allocates insufficient funds for road maintenance, and measures that were supposed to ensure budgetary allocations for road maintenance were not instituted. As a result, the validation rates the sustainability of the Project as *less likely*, concurring with the PCR's rating.

Based on the four evaluation criteria of relevance, effectiveness, efficiency, and sustainability, the validation rates the Project as *successful*, in concurrence with the PCR's overall rating. The validation gives an aggregate score of 1.7, below the PCR's score of 2.0. The validation's score of 1.7 is close to the 1.6 that is the boundary between *successful* and *partly successful*.

(ii) **Lessons.** Lessons learned in the PCR focus on reasons for delays in project implementation, such as prolonged procurement and complicated approval processes, recruitment of consultants, and implementation of civil works contracts. Project implementation delays are not unusual in Bangladesh, and it is not clear in the PCR what lesson was learned from the experience of the Project or how delays can be mitigated. The PCR also points to the need for a contractor to physically commit resources to a contract to ensure performance, and suggests that the prequalification process needs to be more rigorous to avoid future delays in the implementation of civil works contracts. The validation's opinion is that the PCR's lesson should instead be put as a recommendation that bids and contractors be more rigorously evaluated.

The PCR also suggests that resettlement activities during project implementation need to be monitored more thoroughly to ensure that they run smoothly. Again, the validation's opinion is that the PCR's lesson should be put as a recommendation rather than a lesson.

The validation finds that one lesson that could have been included in the PCR but was not is the need to avoid including conditions in loans that depend on passing or amending legislation, or seeking high-level approval, such as from the Cabinet. This was the case in the RMC component that sought annual allocations in the budget for road maintenance. Projects that require legal or high-level administrative changes often experience major delays or fail to meet their objectives.

(iii) **Recommendations.** The PCR points out that, due to the rapid increase in the levels of traffic since appraisal and the rapid increase in the number of heavy vehicles, a sufficient maintenance budget must be provided for the Project roads. The PCR made three recommendations on road maintenance: i) ADB should continue to regularly monitor the maintenance of the Project roads and continue to remind the Government that a functioning domestic funding mechanism for all road maintenance needs to be instituted; ii) ADB should follow up with the Government to ensure the road maintenance funding mechanism has been established before future ADB loans are considered for the roads subsector in Bangladesh; and iii) ADB should ensure that axle-load monitoring and enforcement are conducted by RHD, and follow up the matter in future policy dialogue. The validation concurs with those recommendations.
Since the contractors did not fully comply with the environmental covenants until after an environmental compliance review mission, the PCR also recommends that ADB should regularly monitor environmental concerns through the supervision consultants. The situation could have been avoided if the environment monitoring plan, which was not prepared until April 2003, had been prepared earlier and incorporated into the bidding documents for the civil works contracts. The bidding documents could then include the costs associated with environmental mitigation measures. It is also recommended that the contract documents stipulate effective measures for disciplining contractors that do not implement environmental mitigation measures. The validation’s opinion is that the PCR’s recommendation could be put as a lesson.

The PCR recommends that a project performance evaluation be undertaken in 2–3 years to determine if the Project is still meeting its objectives. However, before such a mission is fielded, the PCR recommends that ADB require the Government to continue monitoring performance of the Project roads and reporting Project benefits. The validation believes it is not clear whether the Government has the capacity to continue monitoring performance of the Project roads and to report Project benefits. No other major issues are identified in the PCR and other project-related documents. Therefore, the validation finds that a validated PCR may be sufficient to rate the project, and a project performance evaluation may not be necessary in the near future.

For future projects, the PCR recommends simplification of project design and procurement methods (post-qualification) and application of better project readiness filters. In particular, future projects should be brought for ADB Board consideration only when land acquisition, procurement plans and detailed designs have been significantly completed. The validation’s opinion is that this recommendation in the PCR could be put as a lesson. More careful attention also needs to be devoted to project costing and contract packaging during project preparation so that loan proceeds are fully and efficiently utilized to reduce the need for future loan cancellations, and to help minimize commitment charges on the Government that are incurred on loans from ADB’s ordinary capital resources.

More attention needs to be paid during project implementation to performance and benefit monitoring. There was little reporting on benefit monitoring during and after completion of the Project. It is necessary to set, as a priority, a list of indices that are not only appropriate for measuring project performance but are also easily measurable with the resources available. ADB missions should constantly monitor the actions taken by the executing agency in this regard and assist it if there are deficiencies.

F. Monitoring and Evaluation Design, Implementation, and Utilization (project completion report assessment and validation)

The RRP states that RHD, assisted by the supervision consultant, will establish a capability for systematic project performance monitoring and analysis throughout the life of the Project, integrated with its management information system. Initially, the project performance monitoring system was expected to develop and conduct a “quick and easy” rapid sample survey to establish a baseline for subsequent performance monitoring. Thereafter, surveys were to be conducted annually. The scope of the survey, quantity and quality of data, and frequency of collection were to be guided primarily by the project management’s need for progressive and rapid feedback on implementation status, as well as early warning of situations that might jeopardize attainment of the development objectives. The key indicators and assumptions outlined at the output and development objective (i.e. purpose and outcome OK) levels in the project framework were to form the core of the data required for assessment. The project performance monitoring system was to be strengthened by supplementary systematic analysis of sample date from similar control (i.e., nonproject) areas.
The PCR states that the key indicators for monitoring were set out in the design and monitoring framework. The PCR notes that, although some limited information such as traffic data was available, monitoring was not undertaken as envisaged at appraisal. There is no evidence that project benefit monitoring surveys were conducted on poverty, employment, earnings, and social indicators in the project area. The validation concurs with the PCR’s assessment as noted above, and that ADB should require the Government to continue monitoring performance of the project. The Government’s PCR refers only to anecdotal evidence of economic development and poverty impact, which may or may not be a result of the Project.

G. Other (e.g. safeguards, including governance and anticorruption; fiduciary aspects; Government assessment of the Project, as applicable) (project completion report assessment and validation)

Safeguards were in place regarding environment and resettlement. However, compliance with these safeguards, particularly those relating to resettlement, led to delays in project implementation because of inadequate oversight by ADB. Local counterpart funds were provided in a timely manner. Governance appears to have been adequate and corruption is not apparent from the data provided in the PCR.

<table>
<thead>
<tr>
<th>H. Ratings</th>
<th>PCR</th>
<th>IED Review</th>
<th>Reason for Disagreement/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance:</td>
<td>Highly relevant</td>
<td>Highly relevant</td>
<td>Main investment and policy objectives of RMC were not achieved.</td>
</tr>
<tr>
<td>Effectiveness in Achieving Outcome:</td>
<td>Effective</td>
<td>Less effective</td>
<td></td>
</tr>
<tr>
<td>Efficiency in Achieving Outcome and Outputs:</td>
<td>Efficient</td>
<td>Efficient</td>
<td></td>
</tr>
<tr>
<td>Preliminary Assessment of Sustainability:</td>
<td>Less likely</td>
<td>Less likely</td>
<td></td>
</tr>
<tr>
<td>Borrower and executing agency:</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Performance of ADB:</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Impact:</td>
<td>No rating</td>
<td>Modest</td>
<td></td>
</tr>
<tr>
<td>Overall Assessment:</td>
<td>Successful</td>
<td>Successful</td>
<td></td>
</tr>
<tr>
<td>Quality of PCR:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I. Comments on Project Completion Report Quality

The PCR is generally well prepared and of good quality. The PCR should have been more candid in its assessment of effectiveness in achieving outcomes, and should have mentioned that the investment and policy objectives of the RMC component were not achieved. The PCR erroneously used the FIRR as an efficiency indicator, whereas the FIRR should have been used as a sustainability indicator. A more judicious distinction between lessons and recommendations would have raised the quality of the PCR.
J. Recommendation for Independent Evaluation Department Follow-up

The PCR recommends that a project performance evaluation be undertaken in 2–3 years. There do not seem to be any major outstanding issues regarding project performance that would warrant further investigation, and so the validation does not find that a project performance evaluation is needed to confirm the Project's ratings. The Independent Evaluation Department may, however, consider a project performance evaluation for generating lessons on private sector participation in transport, particularly through the Project's road maintenance and the toll-road subcomponents.

K. Data Sources for Validation

Data sources included the RRP, PCR, the Government's PCR, Environmental Impact Assessment, back-to-office reports of review missions, progress and financial reports, and other documents.
REGIONAL DEPARTMENT’S RESPONSE TO THE PROJECT COMPLETION REPORT VALIDATION REPORT

On 6 May 2010, the Independent Evaluation Department (IED) circulated the draft Project Completion Validation Report for interdepartmental comments. IED received the following comments from South Asia Department on 19 May 2010.

We found the validation report is in order and reasonable. We have no objection to your rating as "less effective" on the item Effectiveness in Achieving Outcome, mainly due to RMC component for unable to secure annual budget for future maintenance, but not in the overall Project effectiveness; and that the overall assessment for the Project remains rated as "Successful."