



New
Development
Bank

MADHYA PRADESH MAJOR DISTRICT ROADS PROJECT

DECEMBER, 2022

EXECUTIVE SUMMARY

Project Performance Evaluation

Republic of India
Madhya Pradesh Major District Roads Project
Project Performance Evaluation
Executive summary

Context

1. The Madhya Pradesh Major District Roads Project (MPMDRP) is the first project to be evaluated by the Independent Evaluation Office (IEO) of the New Development Bank (NDB).
2. India is the fifth largest economy in the world and expected to grow by 6.8 percent in 2022. The Government of India (GOI) has set an ambitious vision to be a developed country by 2047. A major platform of this vision is strong investment in infrastructure.
3. Madhya Pradesh (MP) is a landlocked state of India, surrounded by five other states. The state has witnessed sharp increases in agricultural production and is a major producer of soy beans, maize, wheat and pulses. However, it is one of eight states with relatively weak socioeconomic indicators. Around 37 percent of its population is multidimensionally poor. In addition, the road density in the state (35 kms per 100 sq km) is less than half the national average of (75 kms).

Project Design

4. The objective of the project was to improve connectivity of the interior of MP with the national and state highway networks, to boost economic activity and productivity in rural hinterlands. This was to be achieved through the upgrading, rehabilitation or reconstruction of approximately 1,500 km of district roads.
5. The project was implemented in 24 districts of the state. The total project cost was estimated at USD 500 million of which USD 350 million was financed by NDB. The project had one main component: Civil Works and Equipment. The loan was approved by the NDB Board in November 2016, and implementation was planned to take place between early 2017 until March 2021. However, it was extended by one year to March 2022.
6. The Public Works Department of the Government of Madhya Pradesh (GOMP) was the executing agency, which designated the Madhya Pradesh Roads Development Corporation (MPRDC) as the Project Implementing Unit (PIU).

Evaluation methodology and process

7. The evaluation followed internationally recognised evaluation criteria of relevance, effectiveness, efficiency, impact and sustainability. It also assessed compliance with relevant safeguards, policies and guidelines.

8. Mixed methods were used for data collection and analysis, and included a review of secondary data, site visits, and the collection of additional information and data from multiple stakeholders at the national, state and community levels using semi-structured questionnaires. Triangulation techniques were used to derive evaluation findings. Two field missions to the project site were conducted in July and September 2022, one for planning and another for the collection and analysis of additional evidence.
9. The draft methodology and evaluation report were shared with NDB Management and partners in India for comments. A final stakeholders' workshop was held in December 2022 in Delhi to discuss the evaluation report.

Project Performance

Relevance: satisfactory.

10. The project objectives were aligned with GOI and GOMP priorities for social and economic transformation, as well as the NDB's General Strategy. In particular, they were consistent with the GOI 12th Five-year plan and the MP State Road Development Plan (2013-2033). However, the evaluation was unable to assess the alignment of project objectives against NDB strategic objectives in India, as NDB does not yet have a country strategy.
11. In terms of project design, MPRDC was a very good choice of PIU, given their overall performance in roads development, as well as past experience of working with other multilateral development banks. The design benefitted from a Review of Environmental and Social Country Framework (India) with multilateral development banks.
12. The various roads (61 sub-projects) were selected using criteria that were well articulated in the appraisal document. However, the design would have benefitted from more comprehensive analytical work of the roads sector. For instance, the decision to favour the use of concrete over a bitumen road surface is questionable, and was not adequately analysed in project design.
13. Finally, no provisions were made in design for the provision of technical assistance to the project team during implementation.

Effectiveness: satisfactory.

14. Generally, the project met its wider objectives of improving connectivity and supporting economic and social transformation in the state.
15. The project outputs surpassed original targets by completion. More specifically, 1,551 kms of major district roads were upgraded, exceeding the 1,500 km in the project design.
16. Project outcomes also exceeded targets. For example, the project contributed to increased traffic volume by 45 percent (target was 30 percent), reduced travel times (actual 55

percent vs 25 percent target), reduction in fatal road accidents (actual 40 percent vs 25 percent target), and reduced vehicle operating costs (actual 35 percent vs 25 percent target). The engineering design eliminated 130 blackspots or hazardous locations. MPRDC also has an Accident Response System (ARS) and is currently developing a Road Asset Management System (RAMS). Partnership with private sector operators in road development and maintenance was an important feature of the project.

17. Project effectiveness was constrained by a few factors, however, such as insufficient supervision and implementation support by NDB, as well as the lack of a more comprehensive approach to the development of the transport sector in MP. Moreover, the evaluation did not find evidence of a systematic assessment of the sub-projects selected based on the agreed criteria.

Efficiency: moderately satisfactory.

18. Project start-up was delayed by more than 200 days, and the closing date had to be extended by a year due to delays during implementation. The reasons for delay were not only related to COVID-19 and ranged from problems in receiving approval and permission from various government departments, changes to the scope of work, shifting electrical utilities and adverse climate conditions.
19. Moreover, the cost per km of road was slightly higher than, for example, Asian Development Bank (ADB) funded projects for road development in MP, and the cost per beneficiary at just more than USD 1,000 is rather high by international standards.
20. Finally, it is not possible to determine the costs of project management, as this was not clearly captured in project cost tables and financial reporting. Disbursement performance is lower than anticipated at appraisal (at completion around USD 460 million were disbursed as compared to the total project costs of USD 500 million). Finally, a broader assessment of disbursement performance was not possible, as the design documentation did not include disbursement projections by year.

Impact: satisfactory.

21. Many impacts take time to manifest, so it is somewhat premature to assess the extent of the overall development impact. Nevertheless, at project completion there was some evidence of emerging impact available, even though they may not only be attributable to the development of roads.
22. For example, the evaluation found that travel time to primary health care centers and hospitals decreased by up to 46 percent and 29 percent, respectively. This enhanced access is likely to contribute to, inter-alia, improvements in maternal and infant mortality. Equally, time taken to reach schools, colleges and universities declined by up to 22 percent, which

may contribute to improved education outcomes and future opportunities for youth. The number of small businesses has increased by close to 70 percent compared to the start of the project. Most importantly, there has been an increase in the average monthly incomes of beneficiaries by around 55 per cent from 13,500 to 21,000 Indian Rupees. These are critical dimensions, indicating that access to roads promoted by the project has improved the general livelihoods of the ultimate beneficiaries in the state.

Sustainability: satisfactory.

23. MPRDC is responsible for maintaining a network of over 22,000 km of roads. Almost half of these are maintained by the private sector, while maintenance of the remaining 53 percent is funded by GOMP. A State Highway Fund was established in 2012, primarily for maintaining and repairing roads, with the use of the funds determined by MPRDC. The latter is also set to implement the first stage of its RAMS, which will collect relevant data to help decision-makers allocate resources for cost-effective maintenance on an area-wide basis.
24. The project design did not include a transparent exit strategy, something that would have further enhanced the prospects of sustainability. Finally, there is uncertainty about the allocation of required resources for the RAMS, something that could limit the wider sustainability of benefits.

Overall project performance: satisfactory.

25. Overall project performance is a composite criterion of relevance, effectiveness, efficiency, impact and sustainability. This was assessed to be satisfactory, though with areas needing attention in the future.

Compliance: moderately satisfactory.

26. Financial management and procurement had no significant issues with 13 packages under civil works and four packages under procurement earmarked for advance procurement. However, there was inadequate clarity in terms of adherence to country systems, and MPRDC was guided by ADB guidelines with which they were familiar. Environmental and social safeguards were followed. The project was classified as Category-B and hence there were no major issues related to land acquisition or involuntary resettlement.

Monitoring and evaluation¹

27. The project had a monitoring and evaluation (M&E) system in place. The project appraisal report did not include an explicit theory of change, though it included a “Design and

¹ M&E is generally not a standalone evaluation criterion and thus is not rated.

Monitoring Framework”. However, there were no indicators on benefits to women and youth, improved access to markets or improved productivity and economic growth.

28. In general, the Design and Monitoring Framework was not a coherent Results Management Framework, which should be tightly linked to the project design and theory of change. Budgets were not included for M&E activities in the project cost-tables. Most importantly, M&E was not used as a key management instrument for making mid-course adjustments and for learning, documenting experiences and good practices. In general, little attention was given to knowledge management in the broader sense, which is a missed opportunity given the broad success of the operation.

Partner performance

29. The Department of Economic Affairs in the Ministry of Finance provided good support through various measures, such as chairing Tripartite Portfolio Meetings, facilitating loan disbursements and helping to resolve implementation issues. The Ministry of Road Transport and Highways and NITI Aayog also played an important role in standard-setting, by sharing best practices and guidelines. However, start-up delays could have been avoided through better planning.
30. GOMP performed satisfactorily, demonstrating deep commitment to the implementation of the project. The performance of the PIU was particularly good. The engagement of private sector operators in the implementation and maintenance of roads is a good practice. Furthermore, RAMS and ARS are creditable efforts to improve outcomes. However, there were some deficiencies due to the opacity of road selection systems, multiple emergency numbers and insufficient mechanisms for protecting assets. In general, the composite government performance was satisfactory.
31. The performance of NDB was moderately unsatisfactory. While recognizing this was one of the first projects approved by NDB, and the limited staff capacity at the time, weaknesses in project design and supervision were limiting factors. Also, frequent changes in the lead NDB officer for the project did not favour continuity in dialogue with in-country partners, limiting the oversight of NDB during implementation.
32. No midterm review of the project was undertaken. The loan agreement also did not capture all of the key dimensions of the project. For example, the impact-level objective to improve productivity, economic growth and enterprise development was missing, and no reference was made to M&E and project supervision.

Conclusions

33. Overall, by promoting access to roads within the broader policy context of federal and state governments, the project has contributed to strengthening connectivity and improved

general livelihoods in MP. It laid the basis for partnership with NDB, which has since financed a follow-up project devoted to promoting access to roads in the state. Key determining factors for the success of the project included the performance and experience of the PIU, as well as involvement of the private sector as implementation and maintenance partners.

34. This was the first project funded by NDB in India. It is therefore understandable that several of the areas for development identified by this evaluation could not have been addressed in the design of a project prepared in 2016. Nevertheless, the areas for development merit attention in future and ongoing NDB-funded projects.
35. Some of the areas that limited project performance include: the lack of a broader country strategy to guide the India-NDB partnership; insufficient analytical work to inform choices and priorities at design; weak supervision and implementation support and monitoring and evaluation; and limited attention to non-lending activities such as knowledge management and innovation. The quality of the design document and loan agreement could have been sharper in several aspects, and better aligned with each other. Knowledge management received little attention from either NDB or project authorities.
36. Lastly, frequent changes in the lead NDB project officer, and insufficient engagement by senior NDB staff during implementation, also limited performance. The decision by NDB to establish its India Regional Office in Gujarat with an experienced Director-General is a step in the right direction, though the role of the office moving forward (in design, supervision and implementation support and overall monitoring) would require more clarity. The recent recruitment of a Principal Professional in the Project Portfolio Management Department is also welcome, to strengthen the function, though it will require more staff to support operations in M&E and portfolio monitoring.

Recommendations

A. Recommendations for NDB

Recommendation 1: Preparation of an India-NDB country strategy.

37. In consultation with GOI, NDB should prepare a country strategy to guide its partnership with India moving forward. The country strategy would articulate NDB priorities for a specific period of time, and serve as an instrument for programming and resource allocation. It would also serve as the overarching framework for project design. In line with the NDB Articles of Agreement, the country strategy should be presented to its Board of Directors for consideration, along with written comments by the IEO thereon.

Recommendation 2: Strengthen design quality at entry.

38. The evaluation recommends that project design processes be reviewed and strengthened. These should be underpinned by deeper analytical work, and build on lessons learned from NDB operations and those of other partners. Project designs should include exit strategies to improve sustainability, and provisions for technical assistance during both design and implementation. In line with the NDB General Strategy for 2022-2026, more attention should be devoted in design to knowledge management and innovation, for greater effectiveness and scale-up impact.
39. Implementing this recommendation would require deeper NDB involvement in design from the beginning, and a commensurate adjustment to its current operating model.

Recommendation 3: Improve project supervision and implementation support.

40. NDB should strengthen supervision activities, including time spent in the field, broaden the composition of supervision teams, improve the quality of supervision outputs, and ensure coherent follow-up to supervision recommendations. More continuity needs to be ensured from the NDB officer responsible for accompanying project implementation. A comprehensive midterm review should be undertaken as a regular feature in ongoing and future operations. While project implementation is the responsibility of the executing agency, NDB should offer a greater degree of implementation support to project teams in specific areas (such as M&E or financial management). This would be consistent with *Managing Development Results* in the NDB General Strategy and its Articles of Agreement.

Recommendation 4: Enhance project monitoring and evaluation.

41. Project designs should have a dedicated section on M&E plans. Such plans should include a clear statement of objectives, a theory of change, and a well-articulated results management framework. A specific budget for M&E should be included in project cost tables. An M&E officer should be foreseen as part of project implementation teams, so that M&E is used not only as a management tool but also for learning and documenting lessons and good practices. Loan agreements should better capture the main dimensions of project design, and include a short article on M&E and NDB project supervision. Strong project-level M&E systems will also contribute to improved knowledge management by NDB more broadly, and other partners.

Recommendation 5: Further articulate the role of the India regional office in country programme delivery.

42. In line with *Strengthening On-the-ground Presence*, emphasised in the NDB General Strategy, the role, responsibilities and delegation of authority of the India Regional Office should be clearly articulated. This would cover engagement in design, supervision and implementation support, policy engagement, partnership development, and broader project and portfolio monitoring and related activities.

B. Recommendations for the Government of Madhya Pradesh

Recommendation 1: Prepare a multimodal transport strategy/plan to support effective connectivity.

43. A multimodal strategy would ensure cost-effective and efficient movement of goods and people. This may be through roads or other means, including the links to other modalities such as rail and waterways that should be explored. It should also link with the recently-launched National Logistics Policy.

Recommendation 2: Preserve assets and strengthen road safety.

44. GOMP should continue to engage the private sector in both construction and maintenance activities. In addition, measures should be undertaken to ensure the strict enforcement of axle-load management. The RAMS and ARS systems should be expanded.

Recommendation 3: Develop guidelines for road selection and ensure enforcement.

45. GOMP should make its guidelines for road selection public, to ensure transparency. It would be useful to clarify the circumstances when it is appropriate to use concrete as opposed to bitumen roads.

INDEPENDENT EVALUATION OFFICE

New Development Bank

1600, Guozhan Road, Pudong New District,
Shanghai – 200126 – China

Tel: +86-21-8021-9512

E-mail: ieo@ndb.int

Website: <https://www.ndb.int/independent-evaluation-office/>