1. Sector Performance, Problems, and Opportunities

Myanmar is the largest country in the Greater Mekong Subregion (GMS) with a total land area of 676,577 square kilometers (km²). Its geographic location combined with strategic investments in transport infrastructure affords Myanmar the potential for becoming a land bridge between South and Southeast Asia, and with China to the north. When Myanmar, then Burma, became an independent nation in January 1948, it did so with a sound transport infrastructure network, and with a competent and well-structured civil service. This remained the situation through the 1950s until, in 1962, the adoption by the then government of the "Burmese Road to Socialism" brought the economy to a virtual standstill. Most productive assets were nationalized and the infrastructure network became a means of distributing food and other commodities around the country. Investment in the transport network, in a climate of severe budgetary constraints, fell sharply; at the same time, revenues from the commercial parts of the sector, essentially the rail and inland water transport networks, were delinked from the costs of providing their services. The result is that, compared with other ASEAN countries, Myanmar’s transport sector is under-developed for a country of its size, population, and potential. Road density for ASEAN overall is about 11 km per 1,000 people, while Myanmar’s is about 2 km per 1,000 people. In terms of the number of motor vehicles in the country, Indonesia and Thailand for example, have about 250 and 370 vehicles per 1,000 people respectively, while Myanmar has 18.²

2. The situation was exacerbated by the Government’s focus, since the late 1980s, on extending the road and rail networks into remote parts of the country, as part of a policy to foster national integration. Since these areas are typically mountainous and sparsely populated, with little economic base, the cost of providing infrastructure to them is high, and the economic return and revenue potential are low. Investment in the transport sector over the past 20 years, primarily from the government’s budget, have proceeded largely without the context of an overall transport sector strategy. Investment focused largely on major highways and new railways, with much less investment going into operations and maintenance of the existing networks and, particularly for the road sector, into the lower level networks. As a consequence, the country possesses an expanding but under-utilized network of higher level roads, but has very poor access to regional towns and communities. Transport costs are high as a consequence, and access to economic and social opportunities for much of the population is severely restricted.

3. There was little investment in, or fundamental changes made to, the agencies that managed the transport sub-sectors, and operated the state-owned service providers. Any revenue-generating agencies – the railway, inland water transport, the road department’s bus and truck fleets and, more recently, the national airline – lost most of the autonomy they once had and became little more than departments within their parent ministries. Their revenues went to the government, and their financing was allocated through the budget in the same manner as a traditional government department. This is the situation that prevails today. The total effect of all these changes has been a transport network that suffers severe deterioration and that now requires large scale investment to restore it’s support to the economic liberalization process that is apparently underway.

¹ This summary is based on Myanmar: Transport Sector Assessment, Strategy and Roadmap. Manila. (http://serd-my.a.db.org/).
4. Overall, the more productive and economically important parts of the road and railway networks have been starved of funding, while typically expensive and under-utilized extensions of networks have proceeded apace. There is an urgent need, as part of an overall transport planning process, to subject all major infrastructure investments, whether for new or upgraded facilities, to a rigorous comparative analysis, based economic costs and benefit to the country as a whole. An important development priority is to improve domestic connectivity by providing more efficient transport linkages between rural areas, markets, and urban centers. Also important for the longer term is providing connectivity with neighboring countries. Although Myanmar shares borders with several countries and is in effect a bridge between South Asia and the Mekong subregion countries of Southeast Asia, its transport links with its neighbors are limited. For the country to achieve the potential that being so strategically located affords, Myanmar needs to, at the physical level, develop or improve more border crossings, and to put in place the essential software changes, for example, those set out in the GMS Trade and Transit Agreement, to facilitate the movement of people and goods across the borders.

5. The core sector issues are (i) the fragmented and overlapping institutional structure that is responsible for the sector; (ii) the absence of an overall transport sector strategy; (iii) absence of a more rigorous approach to selecting infrastructure investments, using economic benefit as an input into the decision process; (iv) the requirement for capacity development that, at the sub-sector level at least, builds on existing reasonably robust and committed institutions and officials; (v) expanding the role of the private sector; and (vi) the absence of a sufficiently extensive lower level road network, servicing local communities that at present have inadequate access to the core road network and, hence, to basic services.

2. Government’s Sector Strategy

6. The Government at the sub-sector level does have plans for the transport sector. These are essentially lists of construction and maintenance projects. These plans, however, are not guided by an overarching transport policy or strategy. As a consequence, the sub-sector plans are not coordinated with each other, nor are they coordinated with the country’s overall development plan, beyond the broadly expressed intention that transport links are to be extended to all parts of the country to support national integration. The plans are, in effect, project lists, with no analysis of why one project should be preferred over another. For example, MOC, which is responsible for the country’s primary and secondary road network, currently operates under a Thirty Year Plan which commenced in 2000, and which is to be implemented in 5-year increments. This seems to be the situation for the other sub-sector agencies also. There is a realization that this fragmented approach to sector planning and management is a constraint, and that a more coherent approach is essential. There is broad agreement on the need for a new planning and policy framework for the sector.

7. Reflecting this situation, MOT wishes to prepare a Transport Master Plan that will: (i) harmonize future plans with the new State Constitution; (ii) integrate the plans of the different transport subsectors; (iii) pursue new opportunities to connect with neighboring countries; (iv) promote domestic connectivity and multi-modal transport networks; (v) promote greater private sector participation in the sector; and (vi) identify technical, financial, and human resource requirements for the plan’s implementation. This Transport Master Plan will then be used to develop a National Transport Network Policy. This is in line with the recommendations of the 1993 Comprehensive Transport Study\textsuperscript{3}. Most of its recommendations remain relevant, since so little has happened in the institutional and structural aspects of the sector since the study was

\textsuperscript{3} UNDP. 1993. Myanmar Comprehensive Transport Study.
completed. MOT is seeking assistance in the form of consultancy services to initiate and provide the required expertise and advisory support for this important undertaking.

3. ADB Sector Experience

8. Despite Myanmar’s sustained engagement with ADB through the GMS Program, ADB has not directly supported the country’s transport sector since the late 1980s. The last major ADB transport project in Myanmar was the Rangoon-Prome Road Improvement Project\(^4\). The civil works under that project were implemented by MOC on a direct force account basis. The road is the major transport corridor between Rangoon, now Yangon, and Prome, now Pyay. It remains in relatively good condition. Given the long lapse in ADB’s involvement in Myanmar’s transport sector, the experience and lessons learned from this project are probably of little relevance to any future ADB engagement.

9. While ADB’s last project operation in Myanmar in the 1980s was successfully completed, and performed satisfactorily, it is not very relevant to future operations. This said, the project is well-remembered by the Government transport agencies, since so little has happened since then, familiarity will assist with developing the relationships necessary for the successful development of any future operations in the sector. The GMS relationship has more recently been very effective in maintaining relationships, and will continue to be so. ADB’s performance in this initiative, as with all GMS partners, has been very good.

10. While the government has been the primary source of financing for the sector’s development, there was some assistance from China and India (mainly in the road sub-sector). Between 1990 and the present, there has been very little other development partner support for infrastructure generally, or the transport sector specifically. At present, only Japan and ADB are developing possible involvements across the overall sector.\(^5\) Japan is taking a particularly comprehensive approach, which, subject to final agreement, may include (i) an overall transport master plan for the country; (ii) an urban master plan, to include transport, for Yangon City; (iii) assistance to MOC with developing technical standards for the road network, including disaster mitigation approaches for parts of the network subject to natural disasters; (iv) rehabilitation of the main railway link between Yangon and Mandalay, via the capital Nay Pyi Taw, and the Yangon circular line; (v) assistance to the IWT agency with improving ship repair and other technical skills; and (vi) development of an export processing zone in Yangon. Other bilateral agencies are presently focusing on basic needs, such as education and health, but they have also indicated an interest in the linkage between effectively doing this, and poverty reduction more broadly, and improvements to rural access through better local road networks. Thailand, through the Neighboring Countries Economic Development Cooperation Agency (NEDA), has assisted Myanmar with the construction of 18 kms of the GMS East-West Corridor from the border at Mae Sot and is currently preparing a further 28 kms to realign the road to Kawkareik.

11. Given the absence of ADB operations in Myanmar for many years, there are few operational lessons available to draw upon. However, operations in other countries that have passed through similar transitions, such as Cambodia, Viet Nam, and Sri Lanka in the context of moving away from a state-dominated approach to the transport sector, provide good examples of how to proceed. Briefly, keep initial operations simple, provide adequate support through well-qualified consultants and, importantly, ensure that ADB itself provides the staffing and other resources to support what will be a fairly long transition process.

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\(^5\) China, Korea, and Thailand are considering or, in the case of Thailand, implementing specific projects.
4. Towards an Assistance Program

12. ADB’s forward strategy for re-engagement with Myanmar in the transport sector should consist of three separate but interrelated phases. The first phase is preparation of the ASR to deepen ADB’s understanding of the transport sector today, the challenges and constraints it faces, and potential areas of support in response to priority needs identified by the Government. The second phase is to prepare and deliver technical assistance in the form of policy advisory services, training and capacity building programs, and project identification and pre-feasibility studies. The third phase is to support the preparation, financing, and implementation of infrastructure investment projects. For the second and third phases, a parallel approach will be adopted to ensure that institutional capacities are aligned with requirements to implement development projects efficiently and effectively.

13. To achieve this alignment, the first set of investment projects in the transport sector will be selected on the basis of their ability to: (i) deliver priority development outputs quickly and visibly; (ii) incorporate simple project designs and straightforward implementation procedures; (iii) not have major negative impacts on resettlement, environment or ethnic minorities; (iv) be scalable and replicable; and (v) provide hands-on training and relevant experience to staff in implementing agencies. The scope, scale and complexity of investment operations can increase commensurate with the growth in institutional capacities to design, implement and manage investment projects. ADB’s initial program of engagement consists of technical assistance in the areas of institutional capacity building and support for pre-feasibility assessments of potential investment projects in the transport sector. Delivery of the technical assistance outlined below would commence in 2012, with implementation carrying into 2013, and translating into lending projects starting 2014.

14. Priorities for consideration for the assistance program include the following:

- **Strengthening Institutional Capacities, Plans and Policies in the Transport Sector.** Recognizing that Myanmar’s transport sector is under the responsibility of five different ministries in the absence of strategic investment plans and an overarching policy, this capacity building and policy advisory initiative would be a first step toward restructuring and modernizing the sector. Such assistance would draw on the analytical work and recommendations arising from the 1993 *Comprehensive Transport Study*, most of which remain relevant. Technical assistance would: (i) prepare a map of the present institutional structure of the transport sector; and (ii) provide recommendations for a more coherent and effective institutional structure that could plan and manage the sector, both at the strategic level and sub-sector level. The institutional analysis would also include a review of decision-making procedures, financial management, and budgeting mechanisms along with an assessment of staff capacities and associated training requirements.

- **Pre-Feasibility Analysis and Structuring of Projects in the Transport Sector.** Such technical assistance could be a combination of advisory services and capacity development on the procedural requirements for preparing transport investment projects for possible ADB financing. Two pilot transport projects could be selected for pre-feasibility analysis. One of the pilot projects would consist of selected road sections in the core primary and secondary national network,

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6 Based on government suggestions, and ASR-related field visits, two potential candidate roads, both located in the Ayeyarwady delta area are (i) Kyepin- Satkawt-Dhanaphu-Zalun, with a possible extension to Hinthada (about 80km); and Kanzan-Maubin-Kyeiklatt-Pyapone (about 75km). Both serve productive agricultural areas, with relatively high population densities.
would assess the economic viability of restoring these sections and, subject to their viability, outline approaches to the restoration work that would maximize opportunities for developing the capacity of the responsible government agency and national contractors. This work would prepare the background for improved asset management of the road sector, a critical area that has suffered chronic underinvestment. The second pilot project for analysis could be the proposed extension of the GMS East West Corridor into Myanmar from Thailand.

- **Developing an asset management program for Myanmar roads.** In response to an immediate need to maintain existing road assets in Myanmar and building on the initial work undertaken through the umbrella advisory TA described above, such technical assistance would work directly with MOC to (i) prepare an inventory of existing assets and operational procedures in the road subsectors; (ii) establish an asset management database and information system; (iii) prepare a systematic management program to prioritize the upgrading and maintenance of key strategic road links; (iv) outline a performance management system for improved operational efficiencies, together with associated performance indicators for road operations; and (vi) establish a capacity development and training program in the road subsectors.

- **Feasibility assessment of GMS East-West Economic Corridor extension into Myanmar.** To promote regional connectivity and improve the flow of goods and people within the subregion, and in response to the Government's priority request for assistance with the GMS East West Economic Corridor, such PPTA would conduct a feasibility assessment to evaluate the proposed extension of the GMS East-West Corridor into Myanmar.

15. The scope of ADB's program of engagement continues to evolve. In addition to continued support for strengthening institutional capacities, the program emphasizes the identification, assessment, and preparation of priority investment projects in the transport sector for possible ADB financing.

16. **Risks and Risk Management.** The initial and most significant risk relates to the actual recommencement of ADB's operations in the country which, in turn, is contingent to continued reengagement of the country with the international community. Managing this risk is largely beyond ADB's control. Operational level risks relate to (i) the highly-centralized nature of the government and economy for the past 5 decades; (ii) the often close relationships between government and commercial interests; and (iii) a lack of exposure to the requirements of internationally-financed projects, in respect of, for example, procurement and contract management, financial management, governance, and safeguards of all types. These risks can be mitigated by providing and ensuring the success of the initial technical assistance for the overall transport sector, and by providing close support through frequent ADB missions supplemented by long-term consulting services.
PROBLEM TREE

NATIONAL IMPACTS
Inefficient socioeconomic development and integration of national and international economy

SECTOR IMPACTS
Lack of national, rural and international connectivity
Inefficient and fragmented transport services resulting in high logistics costs
Unsafe transport systems and transport network operations

CORE SECTOR PROBLEMS
Poor connectivity and inefficiency in transport sector

Absence of overall transport strategy
Inefficient institutional, financial, and operational development of transport agencies and private transport industry
Lack of transport infrastructure, inefficient road and rail network and rural connectivity
Lack of sector support to social, environmental, and economic sustainability

Sector Problem
- central control and planning
- fragmented institutional structure distorted development objectives
- regional self reliance and lack of connectivity
- ill-defined role for transport

Risk and Assumptions
- outdated role of government in policy, regulation, and operations
- peace process in conflict areas
- centrally controlled political system

Sector Problem
- absence of coordination of transport sector policy
- political influence in project selection and budget allocation
- poorly operated state-controlled transport service providers
- inadequate safeguard protection

Risk and Assumptions
- lack of transparency in sector development and delivery
- financial reserve allocation politically influenced
- monopolistic control in some transport services
- outdated social and environmental guidelines

Sector Problem
- lack of paved rural roads
- lack of secondary and tertiary road networks
- low construction standard of primary roads
- lack of integration of sub-sectors
- lack of regional connectivity

Risk and Assumptions
- road hierarchy not defined
- focus on primary road network
- outdated equipment, rolling stock and vessels

Sector Problem
- vehicle standards poorly defined and enforced
- low maintenance budget

Risk and Assumptions
- contractors lack capacity
- outdated traffic regulations
- poor road users’ behavior
- low enforcement of rules
- absence of environmental assessment