SECTOR ASSESSMENT (SUMMARY): TRANSPORT

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. The geophysical setting of the Maldives means a critical role for transport in economic and social development. Large distances in combination with lack of economies of scale, and limited economic activity on remote atolls, among others, result in high transport costs. While air transport is gradually developing, maritime transport is essential. The country’s underdeveloped transport network is a major constraint to development. Almost half of the inhabited islands do not have proper access and harbor facilities; ferry services to the atolls are costly and irregular; transport safety procedures and practices are not well developed; and the potential contribution of civil aviation to the domestic transport system has yet to be fully exploited.

2. Maritime seaports and harbors. An efficient maritime transport network is critical to sustain the economic development of the country. The majority of international trade related shipments occurs through the commercial port at Malé Commercial Harbor (MCH). The other two regional seaports—one in Kolluvadhoo in the north (Haa-Dhaal Atoll) and the other in Hithadhoo (Seenu Atoll) in the south—were commissioned for international service from 2005. MCH can accommodate ships up to 15,000 gross tons (GT), it has a 10.5 meter draft, and handled throughput of about 54,000 twenty-foot equivalent units (TEU) in 2012. About 97% of the freight volume is contributed by imports, and the remaining 3% by exports.

3. The capacity of MCH has improved after the corporatization of Maldives Port Authority (MPA) to Maldives Ports Limited (MPL) in 2008. However, the cargo demand is growing, and MCH is operating above capacity. To meet the additional demand, the development of a new international port with container terminal on Thilafushi island is the government’s aspiration. The 7th National Development Plan, 2006–2010 had focused on investments to develop port facilities in the vicinity of Malé, and that efforts would be made to ensure that regional ports in the northern and southern regional development centers were efficiently utilized. The Strategic Action Plan, 2009–2013 had sought to enhance private sector participation in regional ports. Furthermore, the Maldives Maritime Transport Masterplan, developed with ADB assistance, recommends segregation of cargo and passenger traffic by moving the international port operations from Malé to Thilafushi, and redeveloping the existing MCH site as a commercial development.

4. From MCH, about 40% of total imports are reshipped to outer atolls, and 90% of this occurs via the adjacent Malé North Harbor (MNH). However, congestion at MNH is a serious problem. One of the causes is the long turnaround time of each vessel per call. Under the ADB-funded Domestic Maritime Transport Project, the berth length more than doubled, which directly increased the cargo handling capacity. This new facility is operated by MPL. Implementation of harbor usage fees has also alleviated much of the congestion around Malé.

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1 This summary assessment is based on existing ADB knowledge products, discussions with stakeholders including relevant government agencies, and government’s Strategic Action Plan (http://planning.gov.mv/en/images/stories/publications/strategic_action_plan/SAP-EN.pdf).
4 ADB support was provided through Regional Technical Assistance for Development Partnership Program for South Asia. The proposed international cruise ferry terminal is also in line with the recommendations of the ongoing Feasibility Study of the Indian Ocean Cargo and Passenger Ferry initiated by the South Asian Association for Regional Cooperation.
5. **Weak operation and maintenance.** Maintenance of government port, jetty, and breakwater facilities on the islands suffers from neglect. These assets fall under the domain of the island councils, which have neither the resources to maintain them nor the authority to levy fees for their upkeep. Once these facilities are damaged or destroyed, the central government is called on to repair or replace them. An improved system of asset management and routine maintenance is thus required to avoid costly repairs.

6. **Irregular ferry services.** The market structure for domestic ferries is a mix of public and private operations and ownership. Services are run on demand without a fixed schedule—in particular between Malé and the outer atolls. The limited number of trips and high cost of transportation constrain accessibility, which ultimately affects economic performance. Private carriers (often informal and owner operated) dominate the market for ferry services, as does the Maldives Transport and Contracting Company, which is partly government-owned. The government has repeatedly signaled its desire to establish regular, scheduled inter-atoll ferry services. In 2010, it introduced the Integrated Transport Network Project. Ferry concessions were awarded to private operators with the broad objective of increasing inter-atoll mobility. In return, private operators were granted rights to develop resorts on selected islands to subsidize the cost of ferry operations. However, although the leases were awarded, the ferry services could not be implemented successfully as problems were encountered in developing the islands.

7. Enhancing inter-island ferry connectivity has been challenging, but it is critical to support the economic needs of the country. The Maldives Maritime Transport Masterplan maintains that a hub-and-spoke passenger system would be the most appropriate for domestic transport. It is proposed that, based on population and geographic analysis of atolls, passenger facilities be improved in suitable terminal islands to serve as hubs within the domestic passenger network.

8. Under the initiative of the South Asian Association for Regional Cooperation, a study on the Indian Ocean Cargo and Passenger Ferry is ongoing to analyze the feasibility of launching subregional passenger and cargo services, connecting the Maldives to India (Tuticorin and Cochin) and Sri Lanka (Colombo). The project would help the Maldives to increase accessibility and mobility, facilitate the Maldives’ trade and regular cargo movement, and improve logistics, which can open new opportunities for tourism development. However, the results of the project work to date have yet to be discussed at the policy level of the administration in the Maldives.

9. **Land transport in Malé.** The rapid increase in vehicle ownership is a growing threat to passenger safety and the environment. The introduction of a good public transport system and greater use of renewable energy for vehicles have been identified as possible ways of addressing these problems. In Malé and several other outer islands, roads have been paved and traffic lights installed for the safety of road users. However, there is still a need to improve road safety and ensure that safety considerations are incorporated in road engineering designs.

10. **Expansion of civil aviation facilities.** To date, the Maldives has four international airports and six domestic airports. Ibrahim Nasir International Airport (former Malé International Airport) serves as the hub of both the national and international air transport network. It was privatized in November 2010 following a concession agreement with a private consortium to develop the existing facilities. However, since the concession agreement was terminated because of contractual disputes after work on it had commenced, Ibrahim Nasir International Airport was handed over to the Maldives Airports Company Limited to operate in 2012. The second international airport is located in the south in Gan.
11. The domestic aviation network is served by seaplanes. This caters mainly to the tourist market, and operates mostly out of Malé to the domestic airports. The two sea plane operators—Maldivian Air Taxi and Trans Maldivian Airways—merged under Trans Maldivian Airways. The Maldivian is the airline division of Island Aviation Services based in Malé. It is the national airline of the Maldives and operates international flights in addition to inter-island services. The airline commenced its international flights in January 2008 with scheduled flights to Trivandrum, India.

12. **Sector oversight.** The Ministry of Transport and Communication (MOTC), which had a key role in sector policy formulation, was disbanded in mid-2014. Its functions have been allocated to other ministries; those related to ports development have been assigned to the Ministry of Housing and Infrastructure. The regulatory and sector oversight functions, however, remain with the Transport Authority but under the Ministry of Economic Development.

13. **Sector planning.** The transport sector has been developed in an ad hoc manner, with facilities developed to overcome site-specific bottlenecks rather than in response to the needs of the transport network as a whole. While a draft transport master plan was prepared and released in June 2005, it was not formally accepted by the government at that time. Since then, several developments in the sector include the proposed expansion of civil aviation facilities and the reconstruction of a number of jetties and harbors after the tsunami in December 2004. In June 2012, a second attempt was made to develop the master plan where a stakeholder-led approach was used, and the master plan was developed through extensive consultations with ministries and government agencies.

14. One of the key recommendations was to segregate cargo and passenger movements around Malé, and to expand operations by constructing a new port on Thilafushi island. The freed up prime land on the existing site on Malé could then potentially be redeveloped as an international cruise ferry terminal. Other recommendations included proposals for enhanced maritime safety and mainstreaming environmental protection. The Maritime Transport Masterplan was accepted by the government in November 2013.

15. The Government of Japan provided substantial assistance for constructing breakwaters and seawalls around Malé in 1987. The Kuwait Fund for Arab Economic Development supported the development of commercial ports through assistance to establish two regional ports in Kulhudhuffushi (1999) and Hithadhoo (2004). In 2006, the World Bank used the Public–Private Infrastructure Advisory Facility to explore options for further development of MCH under a public–private partnership modality. The International Finance Corporation, in 2010, provided transaction advisory services for private sector operation of the Ibrahim Nasir International Airport project. Assistance for rehabilitation of maritime transport infrastructure damaged during the December 2004 tsunami has been provided, in particular, through Japan Bank for International Cooperation and the United Nations Development Programme.

2. **Government’s Sector Strategy**

16. While the government is developing the national development strategy, rapid steps are being undertaken to develop infrastructure to promote economic growth while balancing environmental sustainability and social development. Current strategies include increasing the capacity of the maritime network, primarily through port expansion plans on Thilafushi island. This potentially allows for separation of passenger and cargo movements around the capital city—all easing congestion and mitigating the impact on the environment. With the increase in economic activity and maritime traffic, the government also has plans to enhance maritime security and improve the domestic passenger ferry system. To cater to the needs of the growing
population on Malé and Hulhumalé, the government wants to enhance inter-island connectivity such as construction of the Malé–Hulhumalé bridge. PPPs to implement these projects are being explored by the government to tap private sector funding and expertise.

17. At a strategic level, policy making, planning, and regulatory responsibilities for domestic transport services are now with the Ministry of Housing and Infrastructure, while day-to-day regulatory activities are delegated to relevant authorities. The Transport Authority regulates the sea- and land-based transport system in the country, and the Maldives Civil Aviation Authority regulates all matters relating to civil aviation operations and development.

3. **ADB Sector Experience and Assistance Program**

18. ADB has provided several loans in the transport sector to date. The development of MCH was supported through the 1988 Malé Port Development Project and the Second Malé Port Project (approved in 1993).\(^6\) Both included investment components to relieve congestion in MCH through infrastructure enhancements and institutional support to the MPA. The Multi-Project Loan (approved in 1984) included infrastructure investments to support the deepening of priority island harbors.\(^7\) The Domestic Maritime Transport Project in 2007 (footnote 4) aimed to improve the capacity and efficiency of MNH, lower transport costs between remote islands and Malé, and introduce effective and sustainable public asset management and maintenance.

19. In addition, in 2002 ADB provided technical assistance for a transport master plan, whose objectives included the development of transport policies, strategies, regulations, investment programs, and activities in support of an integrated nationwide transport network. The December 2004 tsunami, however, caused urgent reconsideration of nationwide infrastructure investment priorities, so the draft transport master plan was not adopted by the then government. A second attempt to develop the maritime transport master plan was made in August 2011, and it was successfully completed and approved by the government in November 2013.

20. A clear lesson from past assistance is that physical infrastructure investments need to be complemented by institutional capacity enhancement measures. The project-specific approach applied in the two Malé port development projects (as well as the one on domestic maritime transport)—focusing on well-defined areas supported by advisory services for design and institutional development purposes—has worked well. However, project implementation in the sector has been affected by frequent reorganization of the key implementing agency.

21. Improvements in maritime connectivity also have important implications for women’s and children’s health, as shortages of food—particularly fresh fruits and vegetables—have been linked to malnutrition in children and dietary deficiencies causing anemia in girls and women. ADB assistance has also addressed one of the primary causes of poverty: isolation.

22. The government is developing a new national development strategy. ADB is committed to continue to support the government on sustainable development of infrastructure for increased, more efficient, and safer movement of people and goods.

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\(^6\) ADB. 1988. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of the Maldives for the Malé Port Development Project*. Manila: ADB.

\(^7\) ADB. 1984. *Report and Recommendation of the President to the Board of Directors: Proposed Multi-Project Loan to the Republic of the Maldives*. Manila.
Problem Tree for Transport

**Effects**
- Environmental degradation
- Limited subregional trade
- Constrained economic growth and inclusiveness
- Physical and nonphysical barriers to transport flow
- Increased operations costs

**Core Problem**
- Inefficient transport systems with low service level

**Causes**
- Insufficient infrastructure
  - **Limited funding**
    - Public funds limited for massive requirements for future development
    - Limited maintenance financing
  - **Delayed project implementation**
    - Limited capacity of public agencies developing the physical infrastructure
    - High staff turnover
- Inefficient operations and management
  - **Port infrastructure**
    - Insufficient capacity of existing ports
    - Weak asset management systems and services
    - Poor cargo distribution system
  - **Domestic passenger services**
    - Insufficient capacity of passenger terminals and facilities:
      1. Poor passenger maritime transport connectivity
      2. Irregular domestic ferry services
      3. Weak asset management systems and services
    - Heavy reliance on imported fuel: high operating costs
- **Policy and institutional framework**
  - **Fuel efficiency**
    - Limited policy incentives
    - Unexploited potential to streamline cargo and passenger movements
    - Limited development of public transport systems
  - **Private sector participation**
    - Shortage of technical expertise to manage PPP projects
    - Need for strengthened institutional and regulatory framework
    - Limited incentives for private sector participation
  - **Regional cooperation and integration**
    - Limited connectivity with the rest of South Asia
    - Weak coordination of multiple agencies and multiple countries

**Core Problem**
- Inefficient transport systems with low service level

PPP = public–private partnership.
## Sector Results Framework (Transport, 2014–2015)\(^a\)

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<th>Country Sector Outputs</th>
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<tr>
<td>Outcomes with ADB Contribution</td>
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| Enhanced movement of people and goods, including at regional level | Increased and more efficient intra- and inter-island movement of people and goods | Transport facilities and services for passengers and goods in specified regional centers planned to be expanded and enhanced | By the end of 2015:\(^d\) Detailed engineering studies and plans for passenger harbor in the regional Kulhudhuffushi port (in Haa Dhaal atoll) ready (Baseline 2013: no studies or plans in place) | Planned key activity areas | Planned key activity areas
| Targets and Baselines: | Number of passengers from the atolls to Malé increases to 1,572 persons/day in 2015 (2012 Baseline: 1,209) | Inbound container throughput of general cargo increases to 47,053 metric tons in 2015 (2013 baseline: 42,089 metric tons)\(^b\) | | Water transport (100% of funds) | Pre-feasibility study of expansion of Kulhudhuffushi harbor
| | Average dwell time of cargo vessels nationally decreases by 10% by 2015 (2013 baseline [estimated]: average 6.3 days)\(^c\) | | Pipeline project with estimated amount | Pipeline projects | Scoping exercises for internal access improvements in Kulhudhuffushi
| | | Kulhudhuffushi Harbor Expansion Project ($750,000, PPTA, second half of 2014) | Business financing strategy and PPP options (15%) | Planning capacity of ministry and atoll staff |

**ADB = Asian Development Bank, PPP = public–private partnership, PPTA = project preparatory technical assistance.**

\(^a\) This results framework is only for 2014–2015.

\(^b\) The target and baseline for general cargo are drawn from the 2013 Maldives Maritime Transport Master Plan (MM TMP).

\(^c\) This baseline indicator is meant as a proxy measure derived from the work done for the MMTMP, using survey results for Malé’ North Harbor (which has less efficient cargo handling than Malé South Harbor).

\(^d\) These indicators and incremental targets can be seen as intermediate outputs since the tenure of the interim country partnership strategy is less than 2 years and it is not realistic to expect substantive construction work of the passenger harbor in Kulhudhuffushi in that period.