

SECTOR ASSESSMENT (SUMMARY): TRANSPORT (WATER TRANSPORT, NON-URBAN)

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. The Maldives consists of 1,190 coral islands scattered over 90,000 square kilometers of territory in the Indian Ocean, making it one of the most dispersed countries in the world. The country's total population was around 402,000 in 2014, with 96% of the population distributed across 188 administrative islands, 123 of which are occupied by fewer than 1,000 people.¹ On the other hand, over one-third of the Maldives' population resides in and around the capital of Malé, making it one of the most densely populated cities in the world. These geographic and demographic characteristics pose major development challenges for the Maldives in terms of transport connectivity, infrastructure development, provision of basic social services, and access to equitable economic opportunities.

2. The Maldives has high transport costs and limited access to transport opportunities owing to (i) large distances between islands, (ii) slow and uncomfortable maritime transportation, (iii) variable demand, (iv) lack of economies of scale, (v) limited economic activity in remote atolls to finance travel needs, and (vi) seasonally adverse weather conditions. While air transport is gradually developing and investments in road infrastructure are ongoing, maritime transport still remains the most important transport mode in the country.

3. **International maritime transport.** An efficient maritime transport network is critical to sustain the economic development of the country. The majority of international trade-related shipments occurs through Malé Commercial Harbor (MCH). MCH (i) can accommodate ships up to 15,000 gross tons, (ii) has a 10.5-meter draft, and (iii) handled a throughput of about 54,000 twenty-foot equivalent units in 2012. About 97% of MCH's freight volume is contributed by imports and the remaining 3% by exports. The transit costs in Malé are high because MCH has only one container berth and limited storage space. This creates congestion and longer, costly port and terminal handling. Importers and exporters pay at least \$500 per twenty-foot equivalent unit for port entry-related charges such as anchorage fees, berth charges, and tug services. This is one of the highest charges in the subregion and constitutes at least 30% of the total cost of import or export. Additionally, port and terminal handling takes 8.00 days for imports and 6.00 days for exports, compared to the subregional averages of 5.25 days for imports and 4.25 for exports.

4. The capacity of MCH has improved after the corporatization of Maldives Port Authority to Maldives Ports Limited in 2008. However, cargo demand continues to increase, and MCH is currently operating above capacity. Moreover, the Maritime Transport Master Plan (MTMP), which was finalized in 2013, indicates that passenger traffic to Malé is expected to increase by 181% from 2012 to 2032.² To help address this potential problem, the master plan recommends (i) segregation of cargo and passenger traffic by moving the international port operations from Malé to Thilafushi, and (ii) redevelopment of the existing MCH site as a commercial development with potential to accommodate an international cruise ferry terminal.³

¹ Government of the Maldives, National Bureau of Statistics. 2014. *Population and Housing Census*. Malé.

² ADB. 2013. *Maldives Maritime Transport Master Plan*. Consultant's report. Manila (TA 6337-REG).

³ The proposed international cruise ferry terminal is in line with the recommendations of the Feasibility Study of the Indian Ocean Cargo and Passenger Ferry Service, initiated by the South Asian Association for Regional Cooperation and completed in April 2015; ADB. 2015. *Indian Ocean Cargo and Passenger Ferry Service Feasibility Study Report*. Consultant's report. Manila. (TA 7491-REG)

5. To help ease the congestion in Malé, two regional ports were established in 2005 for international service: Kulhudhuffushi Regional Port (Haa Dhaalu Atoll) in the north and Hithadhoo Regional Port (Addu Atoll) in the south. However, these ports have low demand and are only used for receiving goods from Malé and thus have not significantly helped address the congestion problems in Malé's port. Direct import to these harbors is mainly for construction materials.

6. The Seventh National Development Plan, 2006–2010 stated that the government will invest significantly to further develop port facilities in the vicinity of Malé, and that efforts will be made to efficiently utilize regional ports in the northern and southern regions.⁴ The Ministry of Economic Development (MED) has envisioned invigorating direct import activities through the Kulhudhuffushi Regional Port to enhance efficiency of cargo distribution to the northern region. If this initiative is actually implemented, the combined economic benefit resulting from direct importing and the development of Kulhudhuffushi Harbor under this project will be significant.

7. **Domestic maritime transport.** From MCH, about 40% of total imports are re-shipped to outer atolls, and 90% of this occurs via the adjacent domestic harbor at Malé North Harbor. Congestion in Malé North Harbor, caused in part by the long turnaround time of each vessel per call, is a serious problem for ship operators, cargo handlers, and ship owners. Under the ADB-funded Domestic Maritime Transport Project,⁵ the berth length has been doubled, which has directly increased the cargo handling capacity. This new facility is currently operated by Maldives Ports Limited. The collection of a harbor usage fee by Maldives Port Limited has also successfully contributed to the effort to alleviate the congestion around Malé.

8. Interisland shipping services are provided almost entirely by private companies. In 2009, the government established the Integrated Transport Network (ITN) to improve transport services, facilitate movement of goods between urban centers and outer atolls, and improve access of the population to public facilities. The scheme provides round-trip ferry services to all atolls at a low cost (Rf5 to Rf25). The ITN managed to attract private transport providers to enter the sector, and the government continues to provide incentives (e.g., exemption from fuel duties) to expand the transport service to outer atolls. Despite these efforts, the ferry trips throughout the Maldives are still infrequent, and most atolls have only one or two trips to Malé daily with a limited number of ferries operating under the Integrated Transport Network.

9. The enhancement of interisland ferry connectivity has been challenging, but it remains critical to supporting the economic needs of the country. The MTMP maintains that a hub-and-spoke passenger system would be the most appropriate arrangement for domestic passenger transport. Based on population and geographical analysis of all atolls, the MTMP proposes improvements to the passenger facilities in selected terminal islands, which will serve as hubs within the domestic ferry network. Kulhudhuffushi has been identified as the hub in the northern region by the MTMP, and the proposed expansion of the existing multipurpose harbor under this project aims to enhance interisland connectivity, as recommended in the MTMP.

10. **Public harbors in outer atolls.** Domestic transport costs in the Maldives are high because of (i) the long distance between islands and the heavy reliance on imported fuel; and (ii)

⁴ Government of the Maldives, Ministry of Planning and National Development. 2007. *Seventh National Development Plan, 2006-2010*. Malé.

⁵ ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Maldives for the Domestic Maritime Transport Project*. Manila (Loan 2327-MLD).

underinvestment in critical sea transport infrastructure, particularly in outer atolls. According to the Ministry of Planning and National Development in 2011, almost half of the Maldives' inhabited islands do not have proper harbor and access facilities, and 25 islands have no harbors at all. Those with no harbor facilities are remote islands with a small population. The limited population and low volume of trading activities in these islands also make regular ferry service unprofitable. Currently, aside from the limited market size, inadequate infrastructure prevents larger vessels from providing services to outer islands. Only small vessels with 50–250-ton capacities are able to provide services to these islands. The proposed expansion of Kulhudhuffushi Harbor aims to address connectivity issues in outer islands, particularly in the northern region. With a proposed depth of 4 meters below mean sea level, the proposed new passenger and cargo harbor will provide additional capacity and the capability to cater to larger vessels.

11. Maintenance and operational oversight of public harbors, particularly in outer atolls, is generally insufficient. While large-scale maintenance and repair works are carried out and funded by the Ministry of Housing and Infrastructure (MHI) through its Public Works Services, the daily operation and basic maintenance of the assets still fall under the domain of the local councils, which have neither the resources to maintain them nor the authority to levy harbor user charges for their upkeep. In terms of staffing of the local councils, knowledge in efficient and safe harbor operations as well as in general harbor maintenance needs to be enhanced. The councils' lack of authority to implement user charges in public harbors (i) limits funding available for maintenance and operational activities; and (ii) prevents the councils from using a user charging scheme as a controlling instrument to manage the use of harbor infrastructure, e.g., to prevent excessive berthing or mooring of vessels in the harbor area by local residents. Generating additional revenue by the councils from related harbor activities such as passenger amenities and shops is also limited, even though authority to do so is provided by the government. The capacity development technical assistance attached to the project will help address the above institutional issues for the proposed harbor expansion in Kulhudhuffushi.

12. **Sector oversight and planning.** The former Ministry of Transport and Communication had been playing a key role in sector policy formulation prior to its consolidation under the MED and MHI. In the maritime sector, the MHI is responsible for the provision and large-scale maintenance of infrastructure through its Public Works Services. The MED is responsible for policy making, planning, and regulatory aspects for domestic transport services at a strategic level, while the day-to-day regulatory activities are delegated to the Transport Authority for all sea-based and land-based transport systems in the country, and the Civil Aviation Authority for all air-based transport systems.

2. Government's Sector Strategy

13. To help reduce the fiscal burden, the government has decided to further develop the Greater Malé area to accommodate about 70% of the country's population. This development is expected to take time, and in the meantime, the government views developments in remote atolls, which house the remainder of the population, as critical to strengthening the country's economy. The government considers that increasing transport connectivity will make a significant contribution in reducing the disparity of development between the Greater Malé area and the rest of the regions. At the policy level, the objective of the government's development planning is to increase regional prosperity. This is reflected in Goal 3 of the Seventh National Development Plan, which is to “invest in strategic and state-of-the-art infrastructure, to enable ease of movement, enhanced access to services and build competitive advantage (footnote 4, p.16).” In the maritime sector, the government's vision, as reflected in the MTMP, is “to maximize

the international role and maritime stature of the Maldives, whilst developing the national passenger and cargo networks and facilities to support economic growth and social development, without compromising environmental sustainability (footnote 2, p. E-7).” This strategic vision was defined based on the four overarching principles, namely economic development, social development, environmental sustainability, and good governance.

14. The government’s ongoing efforts to develop infrastructure, which would enhance interisland connectivity and promote economic growth, include the following: (i) the development of 10 harbors with funding support from the Islamic Development Bank, and (ii) the construction of the Malé–Hulhumalé bridge with funding support from the Government of the People’s Republic of China.

3. ADB Sector Experience and Assistance Program

15. ADB has provided several loans in the transport sector to date. The development of MCH was supported through two ADB loans: (i) the Malé Port Development Project (approved in 1988),⁶ and (ii) the Second Malé Port Project (approved in 1993)⁷. Both included investment components to relieve congestion in MCH through infrastructure enhancements and institutional support to the Maldives Port Authority, the predecessor to the corporatized Maldives Ports Limited (para. 4). Another loan—the Multi-Project Loan, approved in 1984—included infrastructure investments to support the deepening of priority island harbors.⁸ The Domestic Maritime Transport Project approved in 2007 aimed to (i) improve the capacity and efficiency of Malé North Harbor, (ii) lower transport costs between remote islands and Malé, and (iii) introduce effective and sustainable public asset management and maintenance (footnote 5).

16. 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 the government to reconsider nationwide infrastructure investment priorities, and thus it did not adopt the draft transport master plan. A second attempt to develop the transport master plan with ADB support was made in August 2011, and it was successfully completed and approved by the government in November 2013 as the MTMP.

17. Past assistance has taught that support for physical infrastructure investments needs to be complemented by institutional capacity-enhancement measures. The project-specific approach applied in the Malé Port Development Project, Second Malé Port Project, and Domestic Maritime Transport Project—i.e., focusing project scope on well-defined areas supported by advisory services for both design and institutional development purposes—has worked well. However, project implementation in the sector has been affected by frequent reorganizations of the key implementing agency.

⁶ ADB. 1988. *Report and Recommendation of the President on the proposed loan to the Maldives for the Male Port Development Project*, Manila. (Loan 0911-MLD)

⁷ ADB. 1993. *Report and Recommendation of the President on the proposed loan to the Maldives for the Second Male Port Project*, Manila. (Loan 1226-MLD)

⁸ ADB. 1984. *Report and Recommendation of the President on the proposed loan to the Maldives for the Multi-project Loan and Technical Assistant Grant*, Manila. (Loan 0681-MLD)

Problem Tree for Transport Sector (Water Transport, Non-Urban)

