

**ASIAN DEVELOPMENT BANK**

**TAR: RMI 32208**

**TECHNICAL ASSISTANCE**  
(Financed from the Japan Special Fund)

**TO THE**

**REPUBLIC OF THE MARSHALL ISLANDS**

**FOR PREPARING THE**

**OUTER ISLAND TRANSPORT INFRASTRUCTURE PROJECT**

**September 2000**

## **CURRENCY EQUIVALENTS**

The United States dollar (\$) is the unit of currency in the Republic of the Marshall Islands.

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
EIA	–	environmental impact assessment
IEE	–	initial environmental examination
MOTC	–	Ministry of Transportation and Communication
PWD	–	Public Works Department
RMI	–	Republic of the Marshall Islands
TA	–	technical assistance

## **NOTES**

- (i) The fiscal year (FY) of the Government ends on 30 September.
- (ii) In this report, "\$" refers to US dollars.

## I. INTRODUCTION

1. In April 2000, the Government of the Republic of the Marshall Islands (RMI) asked the Asian Development Bank (ADB) to provide technical assistance (TA) for the preparation of an outer island transport infrastructure project. The ADB Fact-Finding Mission visited Majuro between 11 and 19 July 2000 and reached an understanding with the Government on the rationale, objective, scope, cost estimates, financing plan, implementation arrangements, and terms of reference for the TA. This TA paper was prepared on the basis of the Mission's discussions with the Government; observations in the field; and a review of data, studies, and reports.<sup>1</sup>

## II. BACKGROUND AND RATIONALE

2. The RMI consists of 29 coral atolls, each comprising many islets, and five islands in the Central Pacific between 4 and 14 degrees north latitude and 160 and 173 degrees east longitude. The RMI has a total population of about 51,000 and a land area of 181 square kilometers (km<sup>2</sup>) spread over 1,200 islands and islets across a sea area of nearly 2 million km<sup>2</sup>. The coral atolls and islands have thin infertile topsoils. Salinity limits vegetation to salt-resistant species. The southern atolls have good annual rainfall that is well distributed during the year. The northern atolls are relatively dry and have 3-4 months of dry weather at the beginning of each year.

3. The country has a dual economy, with a subsistence sector coexisting with a modern urban cash economy. About one third of the population lives on the outer islands. On these islands, nearly all the households are extensively involved in subsistence-type activities, with 87 percent involved in fishing, 77 percent in food production, and 75 percent in copra production. By far the most dominant crop is coconut and copra production. In 1994, copra contributed to 45 percent of aggregate rural household income with other crops and handicrafts contributing 20 percent, and the remaining 35 percent coming from remittances, local government grants, and special compensation payment.

4. The Government emphasizes the importance of equitable regional and social development, and the need to increase productive employment opportunities on the outer islands. Consistent with these objectives, ADB financed the Coconut Sector Development Study<sup>2</sup> and the Fisheries Management Project,<sup>3</sup> where it emerged that the cost and reliability of the shipping service is a major constraint to the development of a cash economy on the islands.

5. In fact, because of its archipelagic structure and geography, the outer islands are extremely dependent on connections to the main centers and other atolls by sea and air. The regularity, frequency, and cost of transport services have a significant impact on the social and economic development of the islands. All general food and merchandise provisions, as well as health, education, and social services and supplies reach the outer atolls by sea or air. Due to the relatively small size and dispersed economic activities, transport operations are complex, being concentrated in large atolls, but limited where smaller distant atolls and islands are concerned.

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<sup>1</sup> The TA first appeared in *ADB Business Opportunities* on 14 June 2000.

<sup>2</sup> TA 2994-RMI: *Coconut Sector Development Study*, for \$130,000, approved on 10 March 1998.

<sup>3</sup> TA 2854-RMI: *Fisheries Management Project*, for \$598,000, approved on 16 September 1997.

6. Lack of adequate infrastructure, facilities, navigation aids, and loading centers on the outer islands are major obstacles to efficient domestic shipping services.<sup>4</sup> Similarly, despite the Government's efforts to maintain ports and airports in the country,<sup>5</sup> the general obsolescence of existing facilities and equipment, coupled with the large distances involved, has severely compromised the safety of sea and air transport; additional constraints have been placed on expansion of the air services by inadequate runway lengths. The ADB-assisted National Transport Sector Plan<sup>6</sup> identified the need of the outer islands for navigation aids as visual and radar-reflective markers at reef channels, as well as handling equipment. The report also recommended the rehabilitation of 10 outer island airstrips<sup>7</sup> by removing heavy vegetation over strips and high vegetation on approaches, as well installing wind direction indicators and navigation facilities.

7. ADB assisted the Government in privatizing domestic shipping to improve the efficiency and effectiveness of the transport sector,<sup>8</sup> including the tendering out of domestic shipping services to the private sector. The privatization of the domestic shipping service was accelerated by the decommissioning of two of the Government's field ships and the rapid decline in services to the outer islands. In early 1999, the Cabinet approved a new shipping policy that included the tendering out of field trip services to the private sector. Through a transparent international competitive bidding process, contracts were awarded to two local companies to undertake three routes to the outer islands. Privatized field trip services commenced in late 1999.

8. The results of privatized domestic shipping are mixed. The privatization of the service coincided with a drastic reduction of the subsidies to general cargo.<sup>9</sup> The consequent increase in the carrier charge has raised concerns. While the Government intends to continue with the privatization of shipping services, it is considering reviewing the level of subsidy and the freight costs to the end user. As a matter of fact, the dispersed geography of the archipelagos and the low demand on the outer islands considerably limit the financial viability of the service, but the level of subsidies and/or the cost to the final consumer on the outer islands can be reduced with the improvement of transport infrastructures.<sup>10</sup>

9. Assistance is required to improve port and pier facilities and transport infrastructure on the outer islands, as well as to identify and prioritize these facilities on the basis of a sound assessment of financial, economic, environmental, socioeconomic, technical, and institutional aspects, and with due consideration for the multimodal transport aspects and traffic demands arising from various economic and social activities. Such assistance will also support the coconut and fishery sectors. An outer island infrastructure project is proposed for 2001 to provide the necessary assistance. ADB's sector policy is to continue providing support to private sector-led initiatives and provide the necessary infrastructure to support such activity. ADB's operational strategy for the RMI is broadly consistent with these objectives.

<sup>4</sup> At present, out of 29 coral atolls and 5 islands, 9 have basic port facilities: Ailinglaplap, Arno, Bikini, Enewetak, Jaluit, Likiep, Maloelap, Namu, and Wotje; but, except at Jaluit, they are unable to accommodate the vessels alongside the facilities because of weak structures and shallow water depth.

<sup>5</sup> There are 27 domestic airstrips on the outer islands.

<sup>6</sup> TA 2068-RMI: *Transport Infrastructure Development Project*, for \$600,000, approved on 11 March 1994.

<sup>7</sup> The airstrips of Airok, Ebadon, Ine, Kaben, Lae, Tabal, Tarawa, Tinak, Ujae, and Wotho.

<sup>8</sup> TA 2756-RMI: *Institutional Strengthening Transport Sector*, for \$575,000, approved on 28 January 1997.

<sup>9</sup> The maximum carriage charge per ton of general cargo was increased from \$56.7 per ton to \$100 plus \$0.15 per mile; presently, to transport 1 ton of rice or sugar costs a minimum of \$110.50 to Aur to a maximum of \$188.50 to Enewetak.

<sup>10</sup> Presently, in some outer islands, the time required for loading and unloading is longer than the high-tide/daylight period, and the waiting time can be significant.

10. Within the above-described framework, the TA will help assess, in more depth, the transport infrastructure constraints of the outer islands, particularly those related to the reduction of poverty, expansion of markets, development of agriculture and fishing, improvement of operation and maintenance, and improvement of policies and institutional arrangements. Care will be taken to ensure that the recommended improvements are based upon well-balanced assessments of development needs and community aspirations, and are sustainable.

### **III. THE TECHNICAL ASSISTANCE**

#### **A. Objective**

11. The major objective of the TA is to develop a project for possible ADB financing. It will consist of carrying out a study on ways to improve sea and air transport infrastructure including port handling and storage needs of the outer islands to increase the overall efficiency of the sector, support copra and fishing industries, and consequently improve the income-generating capacity of the disadvantaged outer islands communities. The study will also review the interisland shipping service delivery costs in selected outer islands and its implications for outer island transport infrastructure needs.

#### **B. Scope**

12. The TA is divided into two phases. The first phase will help the Government to prepare an investment program in air and sea transport for the outer islands. It will (i) consult with the outer island communities, groups of women, private developers, and nongovernment organizations to identify the transport infrastructure constraints on the outer islands; (ii) assess interisland shipping and air transport sector policies, regulations, market, providers, and delivery costs to develop recommendations for making the sector more competitive and efficient; (iii) assess the need for storage facilities on the outer islands, including storage for fuel products arising from infrequent shipping schedules; (iv) prepare a program for investment in transport infrastructure on the outer islands based on agreed and accepted criteria for assessing economic, financial, environmental, social, technical, and institutional aspects; and (v) prioritize the investments, taking into account their affordability and sustainability.

13. The second phase will assist the Government in preparing a feasibility study for priority projects. More specifically, it will (i) prepare a feasibility study of the highest priority elements of the transport investment program, including preliminary environmental and social impact assessments, and prepare detailed design and bid documents for selected components; and (ii) assess institutional arrangements to maintain, operate, and recover the costs of this infrastructure, and make recommendations for low-cost sustainable options.

14. The economic and financial rate of return will be established as necessary to determine if the various subprojects are justified. Environmental and social impact assessments will be prepared as a part of the feasibility studies and for the project as a whole. The terms of reference for consulting services are detailed in Appendix 1.

#### **C. Cost Estimates and Financing Plan**

15. The TA is estimated to cost \$430,000 equivalent, comprising \$322,000 in foreign exchange cost and \$108,000 equivalent in local currency expenditure (Appendix 2). ADB will

finance a total of \$340,000 equivalent to meet the entire foreign exchange cost (\$322,000) and \$18,000 equivalent of local currency expenditures. The ADB financing will be provided on a grant basis from the Japan Special Fund (JSF), funded by the Government of Japan. The foreign exchange cost of the TA includes consultants' remuneration, per diem, international travel, report production, communications, office supplies and equipment, travel cost for a Government official to attend contract negotiations between ADB and the consultants at ADB headquarters, and contingencies. The Government will provide the remaining \$90,000 equivalent for local currency costs, through the provision of counterpart staff, office facilities, support services, and local transport costs of its staff. The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project.

#### **D. Implementation Arrangements**

16. The TA will be carried out by a team of consultants, to be engaged from a firm or on individual basis, in accordance with ADB's *Guidelines on the Use of Consultants*. The TA will require about 11 person-months of international consulting services in the fields of transport planning, economic and financial analysis, civil and mechanical engineering, and environmental and social analysis. Two person-months of domestic consulting services will be required to facilitate community inclusion and participation.

17. The Executing Agency for the TA will be the Ministry of Transport and Communications (MOTC). To facilitate the TA, a steering committee, chaired by the minister of MOTC and comprising senior officials of the ministries of finance, internal affairs, public works, and resources and development will be responsible for direction and policy formulation under the TA, and ensuring effective liaison, data gathering, and discussion between the Government, the private sector, and the consultants. Respective local governments will be consulted by the steering committee and MOTC. The secretary of MOTC will act as the focal point for the consultant team and provide coordination between the Government, its agencies, nongovernment organizations, and the consultants. MOTC counterpart staff will assist the consultants and become fully familiarized with the project details.

18. The TA will be carried out in two phases over nine months, beginning January 2001. The TA closing date is expected to be December 2001. A period of 1.5 months between the two phases will enable the Government and ADB to review the consultants' findings and make preliminary recommendations regarding the investment program and policy and regulatory reform. Before phase II starts, a tripartite meeting will be held in Majuro between the Government, ADB, and the consultants to discuss the phase I findings and to agree on the extent of analysis required to formulate an outer island transport infrastructure project. The consultants will submit a brief inception report within two weeks of the start of their services. An interim report will be submitted at the end of phase I, including an initial environmental examination and an initial social assessment of the recommended investment program. A draft final report, together with a summary environmental impact assessment and an environmental impact assessment, as appropriate, will be submitted at the end of phase II. The consultants will submit the final report, taking into account comments of the Government and ADB, within one month of receipt of the comments.

#### **IV. THE PRESIDENT'S DECISION**

19. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance to the Government of the Republic of the Marshall Islands, in

an amount not exceeding the equivalent of \$340,000 for the purpose of preparing the Outer Island Transport Infrastructure Project, and hereby reports such action to the Board. This technical assistance will be financed initially as a grant, but will be subject to the reimbursement arrangements set forth in the Board papers on *Technical Assistance Operations* (Doc. R51-77, dated 20 May 1977) and *Streamlining of Technical Assistance Operations* (Doc. R44-88, dated 21 March 1988), including the provision that, in the event of the technical assistance resulting in a loan from ADB, ADB may charge against such loan, and recover from it, the portion of the initial grant that exceeds \$250,000 equivalent.

## OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

### A. Consulting Services

#### 1. Phase I (Preparation of Investment Program in Land, Air and Sea Transport)

##### 1. Activities include the following:

- (i) Examine the Government's development objectives for the transport sector and other sectors of the economy, and in full consultation with all the stakeholders, consider elements where improved port and airstrip facilities on the outer islands may contribute to these development objectives.
- (ii) Review the cost of transport of passengers and goods to and from selected outer islands, and its implications on the outer island transport infrastructure needs.
- (iii) Review existing studies, particularly those related to wharves, jetties, storage facilities, accesses, and landing areas on the outer islands.
- (iv) Assess the economic viability and operational suitability of recommendations available from those studies.
- (v) Review the existing system for transport data collection and recording, and assist in establishing a simple, concise database for future use.
- (vi) Study the operations at selected outer island wharves and storage facilities, and recommend physical, operational, and institutional changes that would improve the efficiency of the operations.
- (vii) Determine prefeasibility cost estimates for possible improvement and/or upgrading of transport infrastructure facilities, including the cost of upgrading the structure of jetties and wharves, rehabilitating or replacing cargo handling equipment.
- (viii) Examine the economic viability and costs of upgrading landing areas, loading, unloading and storage facilities, and accesses on the outer islands, including provision of ancillary requirements such as navigation aids and cargo handling equipment.
- (ix) Review the user charges for the wharf and landing facilities, and compute tariffs for operating and maintaining the facilities.
- (x) Prepare for discussions with the Government and the other stakeholders, a phased program, for investment in transport facilities on the outer islands in short- (5 year) and medium- (10 year) terms that is both affordable and sustainable.

- (xi) Prepare, for discussion with the Government, a phased program of recommended policy reforms including institutional and regulatory user charges for air and sea transport.
- (xii) Review the existing status of, and recommend suitable roles for, the private sector in providing, operating, and maintaining transport services on the outer islands.
- (xiii) Prepare an initial environmental examination (IEE) for the recommended investment program using Asian Development Bank (ADB)'s *Environmental Guidelines for Selected Infrastructure Projects*, as well as ADB's *Environmental Guidelines for Selected Agricultural and Natural Resources Development Projects*, Attachment F (Coastal Zone Development). The IEE will be prepared according to the prescribed format as presented in ADB's *Environment Assessment Requirements (March 1998)*;
- (xiv) Prepare an initial social assessment for the recommended investment program to provide guidance on specific social issues that will require detailed examination during phase 2, and determine whether the project may require any land acquisition or involuntary resettlement.
- (xv) Undertake detailed discussions with the Government regarding the recommendations made above preparing the interim report for phase I of the TA for formal review and discussions with the Government and ADB.

## **2. Phase II (Preparation of Feasibility Study for Priority Projects)**

### **2. Activities include the following:**

- (i) Carry out a detailed feasibility study for the projects agreed to be implemented on the outer islands during the first five years of the investment program, including among others, economic viability, financial analysis, preliminary design and construction cost estimates, broad construction specifications and specifications for equipment to be procured, suitable procurement modes, and implementation arrangements and schedules. The economic and financial analysis will be carried out in accordance with the relevant ADB guidelines and will include the possible need of any subsidy in accordance with ADB's *Criteria for Subsidies*.
- (ii) Prepare an environmental impact assessment (EIA) and a summary EIA, if required, in accordance with ADB's *Environmental Assessment Requirements and Environmental Review Procedures of the Asian Development Bank*. Environmental management, mitigation, and monitoring plans should be included in the EIA and summary EIA if they are required.
- (iii) Prepare a detailed social analysis in accordance with the *Guidelines for Incorporation of Social Dimensions in ADB Operations*. A resettlement and compensation plan with time-bound actions and budget needs to be formulated in consultation with the Government in cases where land acquisition and relocation of people are involved.

- (iv) Assess in-house capacity and capability of the local governments to administer and monitor implementation and maintenance of transport infrastructure projects, and recommend measures to enhance the capacity, including organization, human resources, and training. The selected projects will have maintenance requirement proper for remote rural communities.
- (v) Identify performance parameters for benefit monitoring and operation of the projects, including reliability increase and time and cost savings for the users, particularly the poor.
- (vi) Recommend a system, as well as the human and financial resources required to sustain the activities. Suggest a mechanism to guarantee the sustainability of the selected projects for possible parallel financing.
- (vii) Formulate a detailed logical framework for the proposed projects in accordance with *Use of Logical Framework for Bank-Assisted Loan and Technical Assistance Projects*.

## B. Reports and Meetings

3. The following reports in hard copy and electronic file, all in English, will be submitted by the consultants to the Government and ADB:

- (i) **Inception Report.** This brief report will be submitted within one month from the start of the services. It will outline any changes in the approach, methodology, and work plan, as well as the cost implications for the consultants' services (contained in the consultants' proposal) that are required to fulfill the terms of reference.
- (ii) **Working Papers.** These are to be submitted by the consultants, if needed, as part of the consultation process with the Government. They will deal with aspects of the TA that may have major implications for existing Government policies.
- (iii) **Interim Report.** This is to be submitted at the end of phase I. This report will contain the findings and recommendations of the consultants regarding the program of investment and policy reform, together with IEEs and ISAs. This report will be reviewed in detail by the Government, ADB, and the consultants in Majuro before phase II starts to discuss the findings and recommendations of the interim report, and to finalize the scope of phase II;
- (iv) **Draft Final Report.** This is to be submitted at the end of phase II. A draft feasibility report for the time-bound investment program, time-bound policy reform program, and EIA, and summary EIA if required, will be submitted by the consultants. If considered necessary, a second tripartite meeting will be convened to discuss the draft final report.
- (v) **Final Report.** This is to be submitted within one month of receipt of comments from the Government and ADB. A final feasibility report will be submitted by the

consultants, taking into account the comments and suggestions of the Government and ADB.

**COST ESTIMATES AND FINANCING PLAN**  
(\\$)

<b>Item</b>	<b>Foreign Exchange</b>	<b>Local Currency</b>	<b>Total Cost</b>
<b>A. ADB Financing*</b>			
1. International Consultant			
a. Remuneration	200,000		200,000
b. Per Diem	45,000		45,000
2. Domestic Consultant		10,000	10,000
2. Computers and Office Equipment	5,000		5,000
3. International and Local Travel	25,000	5,000	30,000
4. Documentation and Training	5,000	1,000	6,000
5. Miscellaneous TA Administration	3,000		3,000
6. Contract Negotiation	5,000		5,000
7. Contingencies	34,000	2,000	36,000
<b>Subtotal (A)</b>	<b>322,000</b>	<b>18,000</b>	<b>340,000</b>
<b>B. Government Financing</b>			
1. Counterpart Staff		30,000	30,000
2. Office Accommodation and Support Services		20,000	20,000
3. Domestic Travel by Counterpart Staff		18,000	18,000
4. Office Supplies and Equipment		10,000	10,000
5. Contingencies		12,000	12,000
<b>Subtotal (B)</b>		<b>90,000</b>	<b>90,000</b>
<b>Total</b>	<b>322,000</b>	<b>108,000</b>	<b>430,000</b>

\* Grant basis, from the Japan Special Fund (JSF)  
Source: Staff estimates.