

資料編

別添 1 調査団員・氏名

別添 1. 調査団員・氏名

(第 1 次現地調査時)

氏名	担当	派遣期間	所属
大村 良樹	総括／上水	2019 年 5 月 19 日 ～5 月 31 日	国際協力機構 地球環境部 国際協力専門員
櫻井 進士	海洋土木	2019 年 5 月 21 日 ～5 月 31 日	国際協力機構 資金協力業務部 国際協力専門員
藤田 暁子	協力計画	2019 年 5 月 19 日 ～5 月 31 日	国際協力機構 地球環境部 水資源グループ 水資源第一チーム
藤山 剛敏	業務主任者／集水・導水・貯水施設 1	2019 年 5 月 19 日 ～6 月 23 日	八千代エンジニアリング(株)
村上 照機	副業務主任者／貯水施設 2	2019 年 6 月 9 日 ～6 月 30 日	日本テクノ(株)
森 一平	設備・機材計画	2019 年 5 月 19 日 ～6 月 16 日	日本テクノ(株) (補強：日本水工設計(株))
Vu Thi Lan Huong	自然条件調査・海岸工学	2019 年 5 月 21 日 ～6 月 21 日	八千代エンジニアリング(株) (補強：(株)オリエンタルコンサル タntsグローバル)
五十嵐 英幸	施設設計／集水・導水 2	2019 年 5 月 19 日 ～6 月 23 日	八千代エンジニアリング(株)
石浦 和広	施工・調達計画／積算	2019 年 6 月 2 日 ～6 月 30 日	八千代エンジニアリング(株)
藤井 將士	環境社会配慮／社会条件調査	2019 年 5 月 18 日 ～6 月 14 日	日本テクノ(株)
安井 雄三	太陽光発電	2019 年 5 月 19 日 ～6 月 4 日	八千代エンジニアリング(株)
田中 清房	系統安定化	2019 年 5 月 19 日 ～6 月 2 日	八千代エンジニアリング(株)
長曾 善之	ドナー協調	2019 年 5 月 19 日 ～6 月 14 日	八千代エンジニアリング(株)
田原 文太	業務調整 (自社負担)	2019 年 5 月 19 日 ～5 月 31 日	八千代エンジニアリング(株)

(第 2 次現地調査時)

新型コロナウイルス流行拡大により、2020 年 3 月 27 日、第 2 次現地調査（ドラフト概略設計説明協議）は TV 会議を通して実施された。

氏名	担当	所属
大村 良樹	総括／上水	国際協力機構 地球環境部 国際協力専門員
藤田 暁子	協力計画	国際協力機構 地球環境部 水資源グループ 水資源第一チーム
左近充直人	環境社会配慮担当	国際協力機構 審査部環境社会配慮審査課
尾上 保子	環境社会配慮担当	国際協力機構 審査部環境社会配慮管理課兼審査課
藤山 剛敏	業務主任者／集水・導水・貯水施設 1	八千代エンジニアリング(株)
村上 照機	副業務主任者／貯水施設 2	日本テクノ(株)
五十嵐 英幸	施設設計／集水・導水 2	八千代エンジニアリング(株)

別添 2 調査行程

別添 2 調査日程

(第 1 次現地調査時)

日順	年月日	曜日	活動	備考
1	2019.5.18	土	コンサルタント団員（藤井）大阪発	UA150 大阪-グアム
2	2019.5.19	日	官団員（大村、藤田）東京発	UA197 成田-グアム
			コンサルタント団員（安井）名古屋発	UA136 名古屋-グアム
			コンサルタント団員（藤山、森、五十嵐、田中、長曾、田原）東京発	UA827 成田-グアム
			コンサルタント団員（藤井）マジュロ着	UA155 グアム-マジュロ
3	2019.5.20	月	官団員（大村、藤田）マジュロ着	UA155 グアム-マジュロ
			官団員（櫻井）東京発	UA827 成田-グアム
			コンサルタント団員（藤山、森、五十嵐、田中、安井、長曾、田原）マジュロ着	UA155 グアム-マジュロ
4	2019.5.21	火	JICA マーシャル支所 団内協議	
			MWSC 等関係機関 キックオフミーティング	
			MWSC, MWIU との協議	
5	2019.5.22	水	コンサルタント団員（フーン）東京発	UA874 成田-グアム
			EPA (Environmental Protection Authority), MEC (Marshall Energy Company), ADB, AG (office of the Attorney General), MWIU, Ministry of Finance との協議	
6	2019.5.23	木	コンサルタント団員（フーン）マジュロ着	UA155 グアム-マジュロ
7	2019.5.24	金	MEC, IPA (Islands Port Authority), EPA との協議	現地調査含む
8	2019.5.25	土	MWSC, EPA, WSO (national Weather Service Office), AG との協議	現地調査含む
9	2019.5.26	日	協議事項取りまとめ、M/D 案作成	
10	2019.5.27	月	協議事項取りまとめ、M/D 案作成	
11	2019.5.28	火	関係機関 M/D 案協議	
			MJCC (Marshalls Japan Construction Company), PII (Pacific International Inc.), MWSC との協議	現地調査含む
12	2019.5.29	水	MWIU, NEO (National Energy Office), EPA との協議	
13	2019.5.30	木	M/D 署名式	
			MWSC, MWIU, MEC との協議	
14	2019.5.31	金	日本大使館への報告	
15	2019.6.1	土	官団員（大村、櫻井、藤田）、コンサルタント団員（田原）マジュロ発	UA154 マジュロ-グアム
			MEC, PII との協議	
16	2019.6.2	日	官団員（大村、櫻井、藤田）、コンサルタント団員（田原）成田着	UA196 グアム-成田
			MWSC との協議	
17	2019.6.3	月	コンサルタント団員（田中）マジュロ発	UA154 マジュロ-グアム
18	2019.6.4	火	コンサルタント団員（田中）成田着	UA828 グアム-成田
			コンサルタント団員（石浦）成田発	UA827 成田-グアム
19	2019.6.5	水	コンサルタント団員（石浦）マジュロ着	UA155 グアム-マジュロ
			コンサルタント団員（安井）マジュロ発	UA154 マジュロ-グアム
			PII との協議	

日順	年月日	曜日	活動	備考
18	2019.6.4	火	コンサルタント団員（安井）成田着	UA828 グアム-成田
19	2019.6.5	水	Anil Development との協議及び現地調査	
20	2019.6.6	木	AC Construction との協議及び現地調査	
21	2019.6.7	金	RMIEPA との協議	
22	2019.6.8	土	協議事項とりまとめ	
23	2019.6.9	日	コンサルタント団員（村上）東京発	UA827 成田-グアム
24	2019.6.10	月	コンサルタント団員（村上）マジュロ着 RMIPA との協議	UA155 グアム-マジュロ
25	2019.6.11	火	MWSC との協議	
26	2019.6.12	水	PII との協議	
27	2019.6.13	木	コンサルタント団員（長曾、藤井、森）マジュロ発 DIDA(Division International Development Assistance)との協議	UA154 マジュロ-グアム
28	2019.6.14	金	コンサルタント団員（長曾）成田着 （森）成田着 （藤井）大阪着	UA828 グアム-成田 UA196 グアム-成田 UA151 グアム-大阪
29	2019.6.15	土	協議事項とりまとめ、テクニカル・ノート案作成	
30	2019.6.16	日	協議事項とりまとめ、テクニカル・ノート案作成	
31	2019.6.17	月	MWSC との協議	
32	2019.6.18	火	MWU、MWSC とのテクニカル・ノート協議	
33	2019.6.19	水	Civil Aviation との協議	
34	2019.6.20	木	コンサルタント団員（フーン）マジュロ発 MWIU との協議	UA154 マジュロ-グアム
35	2019.6.21	金	コンサルタント団員（フーン）成田着 日本大使館への報告	UA828 グアム-成田
36	2019.6.22	土	コンサルタント団員（藤山、五十嵐）マジュロ発	UA154 マジュロ-グアム
37	2019.6.23	日	コンサルタント団員（藤山、五十嵐）成田着	UA828 グアム-成田
38	2019.6.24	月	マジュロ市との協議	
39	2019.6.25	火	財務省との協議（免税方法確認）	
40	2019.6.26	水	測量調査状況確認、Dateline との協議	
41	2019.6.27	木	測量調査状況確認	
42	2019.6.28	金	MWU との協議	
43	2019.6.29	土	コンサルタント団員（村上、石浦）マジュロ発	UA154 マジュロ-グアム
44	2019.6.30	日	コンサルタント団員（村上）成田着 （石浦）成田着	UA828 グアム-成田 UA196 グアム-成田

別添3 関係者（面会者）リスト

別添3 関係者（面会者）リスト

所属及び氏名	職位
公共公益インフラ省 Ministry of Works Infrastructure and Utilities (MWIU)	
Mr. Anthony M. Muller	Minister
Mr. Catalino Kijiner	Secretary
Mr. Melvin Dacillo	PMU Manager
Mr. Grant Bilyard	Civil Engineering Advisor
マジュロ上下水道公社 Majuro Water and Sewer Company (MWSC)	
Mr. Joseph M Batol	General Manager
Mr. Halstan Wani Debrum	Operation Manager
Mr. Nate Stansberry	Technical Advisor
Mr. Nathaniel Stansberry (Nate)	Technical Advisor
Ms. Martha Edward	Finance Manager
Mr. Libotha Maddison	Administrator / HR
環境保護局 Environmental Protection Authority (RMIEPA)	
Ms. Moriana Phillip	General Manager
Ms. Dolores deBrum-Kattil	Deputy General Manager
Mr. Marsonalie Moncure	Chief, Coastal Land and Conservation Division
Mr. Tuvuki Ketedromo	Chief, Water Quality Division
Mr. Aaron Langlur	Chief, Solid Waste Division
Mr. Barry Relane	Coastal Compliance and Conservation Officer
Mr. Paul Paul	Lab Technician, Laboratory & Water Quality Division
Mr. Richardo Joram	Lab Technician, Laboratory & Water Quality Division
空港管理局 Republic of Marshall Islands Ports Authority (IPA)	
Mr. James Bing II	Director & Airport Manager
Mr. Thomas Maddison	Seaport Manager
気象局 Weather Service Office (WSO)	
Mr. Lee Jacklick	Deputy Director, RMI Meteorological Science
マーシャルエネルギー公社 Marshall Energy Company (MEC)	
Mr. Jack S. Chong Gum	Chief Executive Officer
Mr. Steve Wakefield	Chief Technical Officer
Mr. Kamalesh Doshi	Project Manager of SEDeP
国家エネルギー局 National Energy Office (NEO)	
Ms. Angeline Reimers	Director
Mr. Benjamin S. Wakefield	Deputy Director
法務入国労働省 Ministry of Justice, Immigration and Labor (MJIL)	
Mr. Jack Ading	Minister
Mr. Johnathen Kawakami	Acting, Attorney General's office
財務省 Ministry of Finance	
Mr. Hon Brenson S. Wase	Minister
Mr. Mea	Custom Revenue manager
Mr. Ruben Zackhras, Jr	Chief of Customs

所属及び氏名	職位
Ms. Malie Tarbwillin	Aid Coordinator DIDA (財務省傘下)
内務省 Ministry of Internal Affairs	
Ms. Molly Helkera	Assistant Secretary
歴史保存事務所 Historic Preservation Office (HPO)	
Ms. Mabel Peter	Deputy
マーシャル諸島海洋資源局 Marshall Islands Marine Resources Authority (MIMRA)	
Ms. Florence Edwards	Deputy Director General
Ms. Kalena deBrum	In charge of Reimaanlok
経済政策・企画・統計事務所 Economic Policy, Planning and Statistics Office (EPPSO)	
Mr. Frederick Debrum	Director
ADB	
Ms. Ellen E. Paul	Senior Country Officer
Pacific International Inc. (PII)	
Mr. Jerry Kramer	Chief Executive Officer
AC Construction	
Mr. Christfer E Bing	Chief Executive Officer
Anil Development Inc.,	
Mr. Kikokika C. Jingkay	Project Manager
Marshalls Japan Construction Company (MJCC)	
Mr. Kosuke Sato	General Manager
マジュロ市役所	
Mr. Ruin Abraham	Treasurer
Attorney General Office	
Mr. Jonathen Kawakami	Deputy Attorney General
JICA マーシャル支所 JICA Marshall Islands Office	
松井 信晃	所長
在マーシャル日本国大使館 Embassy of Japan in Marshall	
齋藤 法雄	特命全権大使
小幡 ひとみ	参事官
松村 翔	専門調査員 (Economic Adviser/Researcher)

別添 4 協議議事録 (M/D)

Minutes of Discussions
on the Preparatory Survey of the Project for
Improvement of Water Reservoir at Majuro Atoll

Based on the several preliminary discussions between the Government of Republic of the Marshall Islands (hereinafter referred to as “RMI”) and JICA Marshall Islands Office, with reference to the letter “Requested Scope of Survey” dated November 6th, 2017, Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched the Preparatory Survey Team for the Outline Design (hereinafter referred to as “the Team”) of the Project for Improvement of Water Reservoir at Majuro Atoll (hereinafter referred to as “the Project”) to RMI. The Team held a series of discussions with officials of the Government of RMI and conducted a field survey. In the course of the discussions, both sides have confirmed the main items described in the attached sheets.

Majuro, May 29th, 2019

大村良樹

OMURA Yoshiki

Leader

Preparatory Survey Team

Japan International Cooperation Agency

Japan

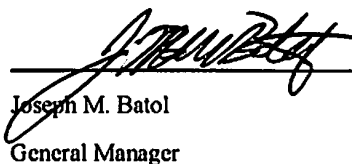
 5/29

Hon. Anthony M. Muller

Minister

Ministry of Works, Infrastructure and Utilities

The Republic of the Marshall Islands

 5/29/19

Joseph M. Batol

General Manager

Majuro Water and Sewer Company

The Republic of the Marshall Islands

ATTACHMENT

1. Objective of the Project

The Project objective is to increase the rainwater storage capacity by construction of the proposed rainwater reservoir, thereby contributing to secure the water production for future drought and demand increase. Both sides confirmed that the scope of the Project excludes purification and distribution facilities. RMI side is expected to take responsibility for any problems arising from the facilities out of the Project components.

The Majuro Water and Sewer Company (MWSC) explained that it has a policy to continuously secure the water production through rainwater collection and not through seawater desalination.

2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey of the Project for Improvement of Water Reservoir at Majuro Atoll”.

3. Project Site

Both sides confirmed that the site of the Project is in Majuro, which is shown in Annex 1.

4. Responsible Authority for the Project

Both sides confirmed that the authorities responsible for the Project are as follows:

4-1 MWSC will be the executing agency of the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency will coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project will be managed by relevant authorities properly and on time. The organization chart is shown in Annex 2.

4-2 The line ministry of the Executing Agency is the Ministry of Works, Infrastructure and Utilities (MWIU). MWIU will be responsible for supervising the Executing Agency on behalf of the Government of RMI. The organization chart is shown in Annex 2.

7. Schedule of the Survey

7-1 The Team will make further survey in RMI until the end of June 2019.

7-2 The official request will be submitted by RMI to the Government of Japan by the end of July 2019.

7-3 JICA will prepare the Draft Preparatory Survey Report in English and dispatch a mission to RMI in order to explain its contents around February 2020.

7-4 If the contents of the Draft Preparatory Survey Report is accepted and the undertakings for the Project are fully agreed by RMI side, JICA will finalize the Preparatory Survey Report and send it to RMI around May 2020.

7-5 The above schedule is tentative and subject to change.

8. Environmental and Social Considerations

8-1 RMI side confirmed to provide due environmental and social considerations during implementation, and after completion of the Project, in reference to the JICA Guidelines for Environmental and Social Considerations (April 2010), which categorizes the Project as "B" implying that potential adverse impacts from the Project on the environment are not likely to be significant. However, any assessments on the environment for the Project should follow RMI regulations for environmental and social considerations.

8-2 RMI side confirmed to carry out the necessary procedures concerning environmental assessment (including stakeholders' meetings, Environmental Impact Assessment (EIA) and information disclosure) and prepare an EIA report of the Project as necessary. RMI side, under the responsibility of MWSC supported by MWIU, agreed to bear all costs required for the necessary procedures and EIA to receive approval from Environmental Protection Authority (EPA). The EIA approval will be received from the responsible authorities and submitted to JICA before January 2020. The flowchart of EIA is shown in Annex 6.

9. Other Relevant Issues

9-1 Land Issue

The Project site of the proposed rainwater reservoir is in the currently under-water area of approximately 2.3ha located between the eastern perimeter fence of Amata Kabua airport and the existing rainwater reservoir No.6. The following are agreed and actions



will be taken by MWIU and MWSC by the end of September 2019.

- 1) MWSC agreed to request Ministry of Justice, Immigration, and Labor (MJIL) to officially notify JICA with copies to Attorney General and the Ministry of Finance of the following:
 - a) That the previous document addressed to the Embassy dated May 22nd 2019 was for clarifying the MJIL's stance in terms of the land lease contract No. MI-92-0032 signed on February 19th 1992.
 - b) That MJIL, representing the Government of RMI, is a rightful lessee of the lease contract for the land to use as airport and water reservoirs. This transfer of lessee from the Ministry of Internal Affairs (then) to MJIL was approved by the Cabinet, of which minutes of meeting will be attached to the notification to JICA.
 - c) That the MJIL held four meetings with landowners and explained the latter of the Ministry's intention to exercise the option to renew the contract in accordance with Section 23 of the contract at a rate not greater than the government rental rate. MJIL felt that there was hardly a room to negotiate with landowners for all conditions including a rental rate were disclosed. There was no objection to renewal of the contract made by the landowners. The meeting results will be summarized and attached to the notification to JICA.
- 2) MWIU agreed to request the Cabinet of RMI Government to approve MWSC's exclusive right to construct an additional rainwater reservoir at the currently under-water area of approximately 2.3ha between the eastern perimeter fence of Amata Kabua airport and the existing rainwater reservoir No.6. as shown in Annex 1. MWIU also agreed to notify JICA of said Cabinet approval in writing.
- 3) MWIU agreed to submit a property map indicating ownerships of an area consisting of Nakan Weto and Katoj Weto covering the proposed project site.
- 4) Attorney General agreed to submit a legal advice on the ownership of land which is reclaimed by the Government of RMI.

9-2 Other Development Partners

MWSC mentioned that some of the development partners are interested in the improvement of the water sector as discussed below. MWSC will inform the progress of such plans to JICA.

1) World Bank

Under the Sustainable Energy Development Project (SEDeP), solar panels will be installed in the existing water reservoirs #1, #2, #4, #5 and #6, of which World

Bank rehabilitates lining except #4. Therefore, RMI will discuss with the World Bank for the possibility of installing floating solar panels in the rainwater reservoir of the Project into the future plan of SEDeP and the results of discussion will be reported to JICA.

2) ADB

ADB has a budget of US\$10MN for RMI water sector, which may be applied for an ocean outfall (US\$6MN), Non-Revenue-Water (NRW) reduction with installation of flowmeters and customer meters (US\$2MN), social considerations (US\$1MN) and expansion of rainwater catchment area (US\$4-5MN). The components will be finally decided by the RMI combining utilities board, the national governing body of utilities.

9-3. Handling of Taxes

Both sides agreed the Japan's grant aid project is based on the condition of exemption of tax as follows:

1) Customs duties (Import Tax)

For imported materials, equipment procured for the Project, construction equipment, temporary materials, and daily consumables.

2) Sales Tax

3) Fuel Tax

4) Income Tax for the expatriate(s) of the Contractor and its subcontractors

5) Corporate Tax of the Contractor and its foreign subcontractors

9-4. Response to Questionnaire

RMI side confirmed to submit the documents as shown in Annex 7 by May 31st 2019.

[List of Annexes]

Annex 1 Project Site

Annex 2 Organization Chart

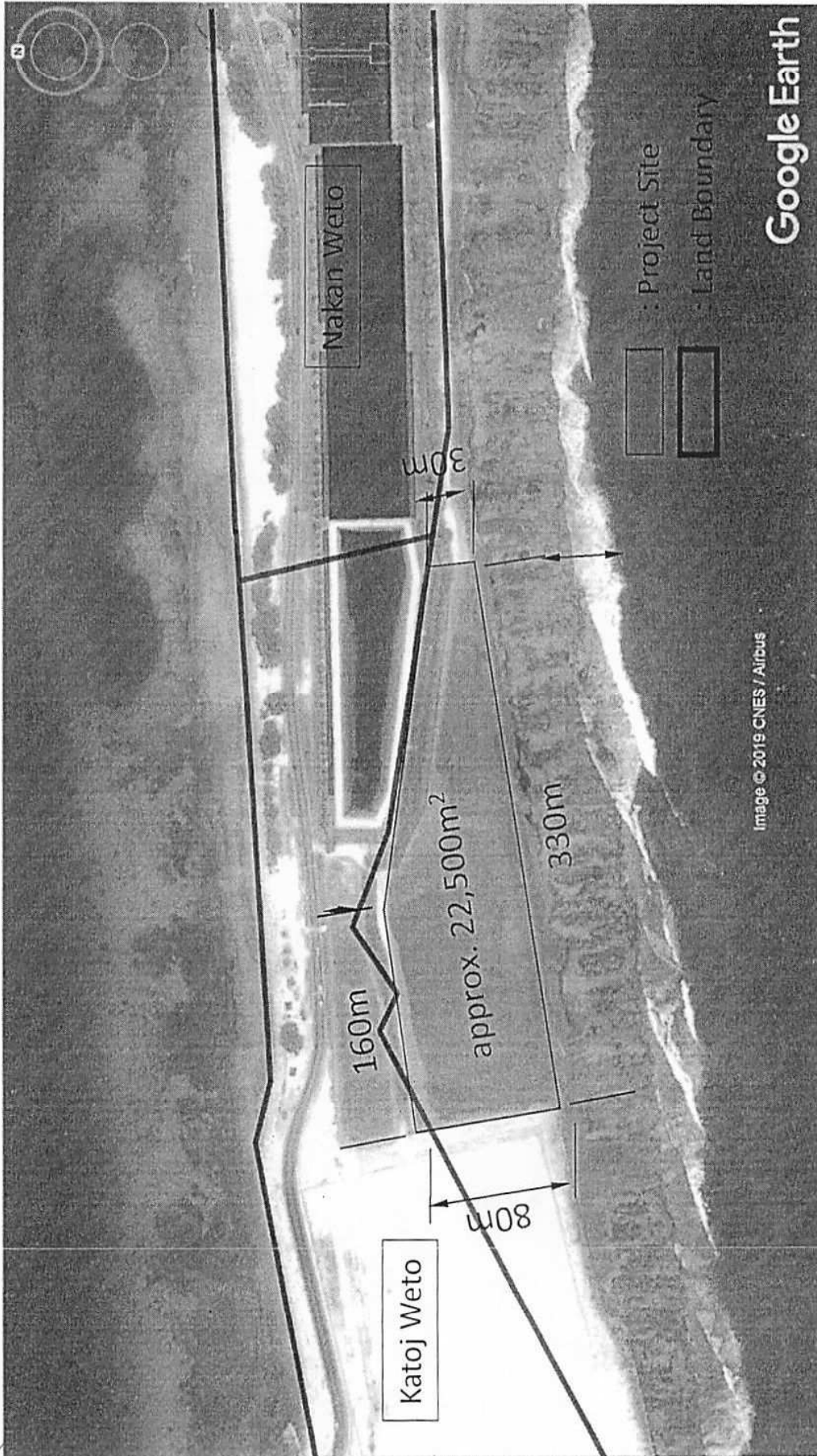
Annex 3 Japanese Grant

Annex 4 Project Monitoring Report (template)

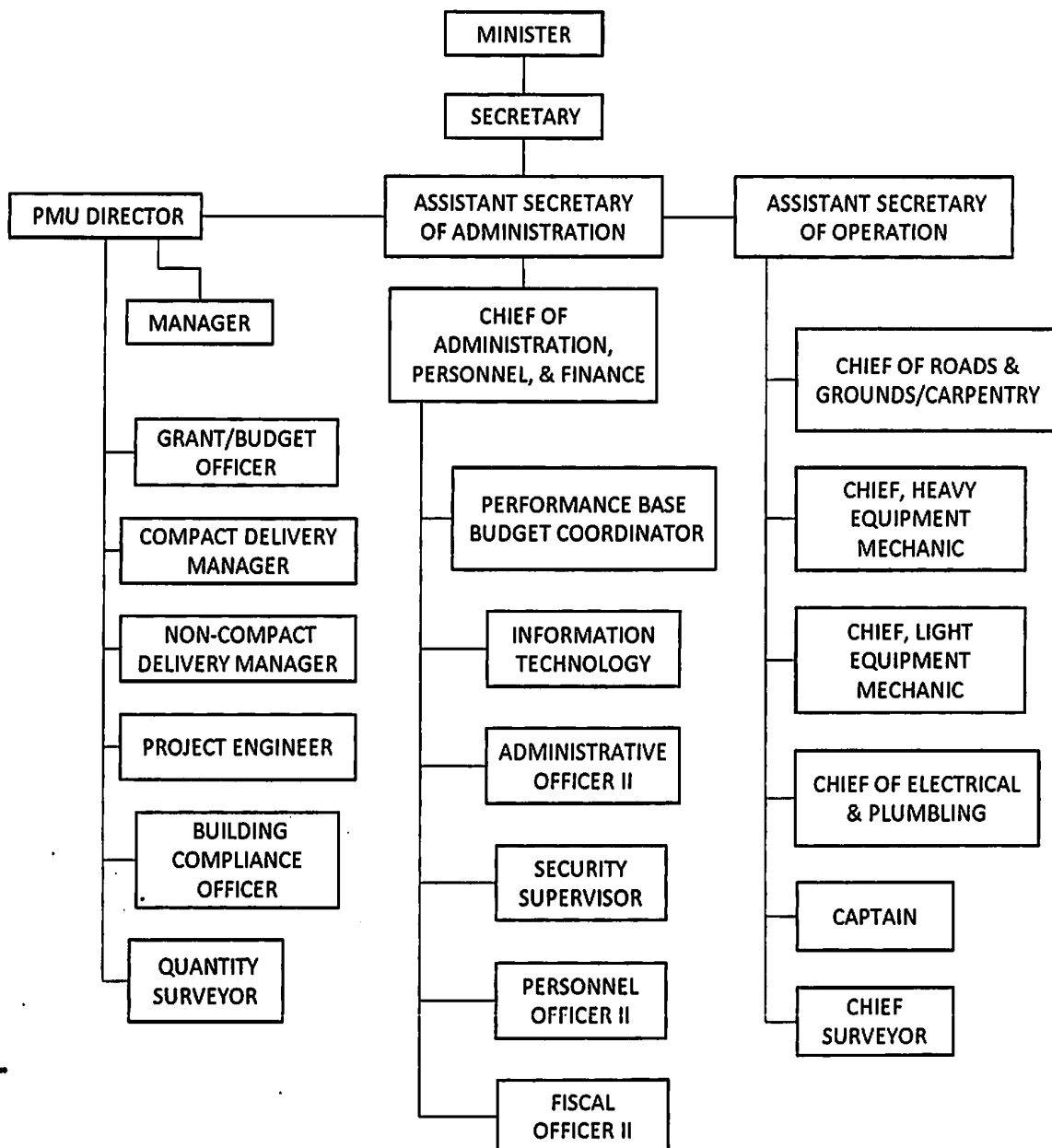
Annex 5 Major Undertakings to be taken by the Government of RMI

Annex 6 Permit Application Flowchart

Annex 7 Documents to be submitted by RMI

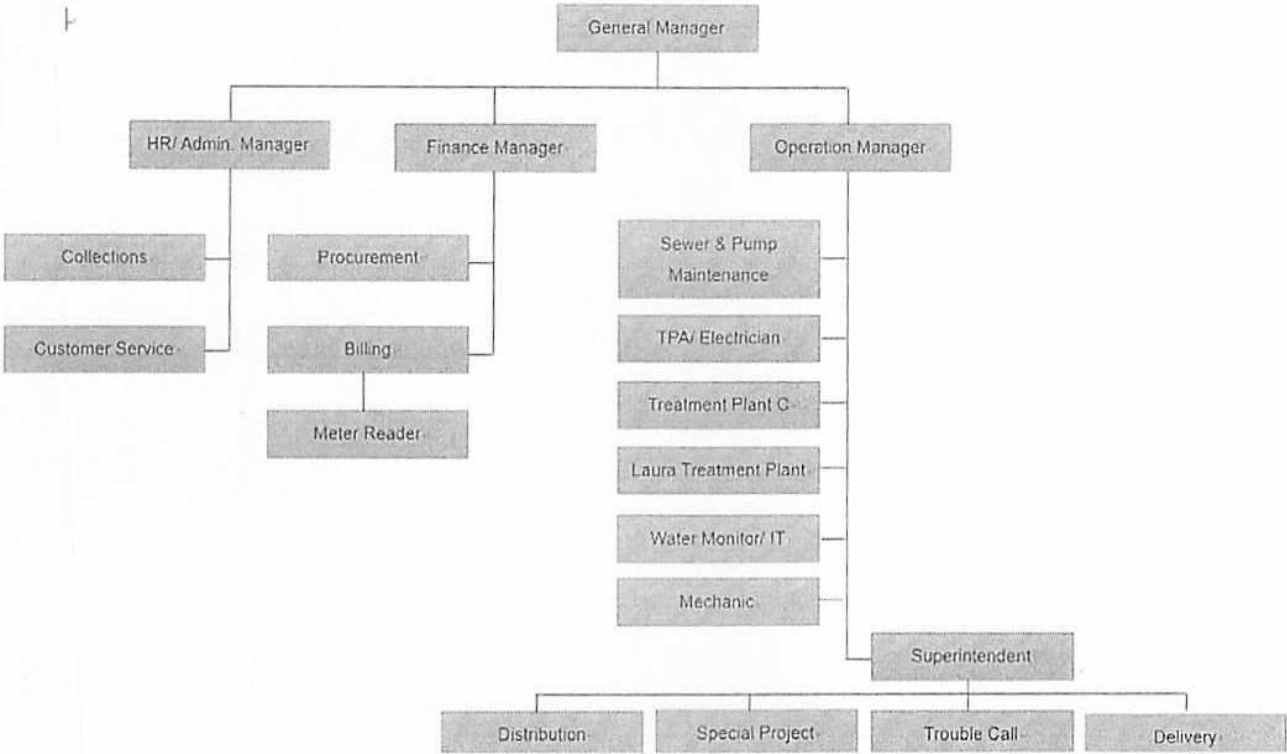


MINISTRY OF WORKS, INFRASTRUCTURES AND UTILITIES
Organization Chart



Annex 2-1

Majuro Water and Sewer Company
 Organization Chart 2019



JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as "the Recipient") to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as "Project Grants").

1. Procedures of Project Grants

Project Grants are conducted through following procedures (See "PROCEDURES OF JAPANESE GRANT" for details):

(1) Preparation

- The Preparatory Survey (hereinafter referred to as "the Survey") conducted by JICA

(2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as "GOJ") and JICA, and Approval by the Japanese Cabinet

(3) Implementation

Exchange of Notes

- The Notes exchanged between the GOJ and the government of the Recipient

Grant Agreement (hereinafter referred to as "the G/A")

- Agreement concluded between JICA and the Recipient

Banking Arrangement (hereinafter referred to as "the B/A")

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as "the Bank") to receive the grant

Construction works/procurement

- Implementation of the project (hereinafter referred to as "the Project") on the basis of the G/A

(4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

3. Basic Principles of Project Grants

(1) Implementation Stage

1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the "General Terms and Conditions for Japanese Grant (January 2016)."

2) Banking Arrangements (B/A) (See "Financial Flow of Japanese Grant (A/P Type)" for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to

cover the obligations incurred by the Recipient under the verified contracts.

- b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.

3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.

6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the "Meeting") will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as follows:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.

- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.

(2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

(3) Others

1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

3) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

4) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

Date:

Ref. No.

JAPAN INTERNATIONAL COOPERATION AGENCY
JICA ~~XXX~~ OFFICE

[Address specified in the Article 5 of the Grant Agreement]

Attention: Chief Representative

Ladies and Gentlemen:

NOTICE CONCERNING PROGRESS OF PROJECT

Reference : Grant Agreement, dated (signed date of the G/A), for (name of the Project)

In accordance to the Article 6 (3) of the Grant Agreement, we would like to report on the progress of the Project up to the following stages:

[Common]

- ☐ Preparation of bidding documents - result of detailed design
- ☐ Completion of final works under construction/procurement contract

[Construction]

- ☐ Monthly progress [Month/Year]

[Procurement of Equipment]

- ☐ Shipping/delivery, hand-over (take over) of equipment
- ☐ Installation works
- ☐ Operational training

- ☐ Other _____

Please see the details as per attached Project Monitoring Report (PMR).

Very truly yours,

[Signature]

[Name of the signer]

[Title of the signer]

[Name of the executing agency]

cc.




5

Director General
Financial Cooperation Implementation Department
Japan International Cooperation Agency
[Address specified in the Article 5 of the Grant Agreement]



Annex 4-2

A-4-14



5

Project Monitoring Report
on
Project Name
Grant Agreement No. XXXXXXXX
20XX, Month

Organizational Information

Signer of the G/A (Recipient)	Person in Charge	(Designation)
	Contacts	Address:
		Phone/FAX:
		Email:
Executing Agency	Person in Charge	(Designation)
	Contacts	Address:
		Phone/FAX:
		Email:
Line Ministry	Person in Charge	(Designation)
	Contacts	Address:
		Phone/FAX:
		Email:

General Information:

Project Title	
E/N	Signed date: Duration:
G/A	Signed date: Duration:
Source of Finance	Government of Japan: Not exceeding JPY _____ mil. Government of (): _____

1: Project Description

1-1 Project Objective

--

1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

--

1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr)	Target (Yr)
Qualitative indicators to measure the attainment of project objectives		

2: Details of the Project

2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)

2-3 Implementation Schedule

Items	Original		Actual
	(proposed in the outline design)	(at the time of signing the Grant Agreement)	

Reasons for any changes of the schedule, and their effects on the project (if any)

--

2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations

See Attachment 2.

2-4-2 Activities

See Attachment 3.

2-4-3 Report on RD

See Attachment 11.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original ^{1),2)} (proposed in the outline design)	Actual
	1.			
Total				

Note: 1) Date of estimation:

2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

Components			Cost (1,000 Taka)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original ^{1),2)} (proposed in the outline design)	Actual
	1.			

Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original (at the time of outline design)

name:

role:

financial situation:

institutional and organizational arrangement (organogram):

human resources (number and ability of staff):

Actual (PMR)

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

Original (at the time of outline design)

Actual (PMR)

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

Original (at the time of outline design)

Actual (PMR)

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks (at the time of outline design)

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
2. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
3. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:

	Contingency Plan (if applicable):
Actual Situation and Countermeasures (PMR)	

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

--

5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

--

5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

--



15

Attachment

1. Project Location Map
 2. Specific obligations of the Recipient which will not be funded with the Grant
 3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
- Consultant Member List
 - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/ Agreement and Schedule of Payment)
 5. Environmental Monitoring Form / Social Monitoring Form
 6. Monitoring sheet on price of specified materials (Quarterly)
 7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
 8. Pictures (by JPEG style by CD-R) (PMR (final) only)
 9. Equipment List (PMR (final) only)
 10. Drawing (PMR (final) only)
 11. Report on RD (After project)

Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

	Items of Specified Materials	Initial Volume A	Initial Unit Price (¥) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment	
						Price (Decreased) E=C-D	Price (Increased) F=C+D
1	Item 1	●●t	●	●	●	●	●
2	Item 2	●●t	●	●	●		
3	Item 3						
4	Item 4						
5	Item 5						

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

	Items of Specified Materials	1st month, 2015	2nd month, 2015	3rd month, 2015	4th	5th	6th
1	Item 1	●	●	●			
2	Item 2						
3	Item 3						
4	Item 4						
5	Item 5						

(3) Summary of Discussion with Contractor (if necessary)

. . .

Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

MAJOR UNDERTAKINGS TO BE TAKEN BY THE GOVERNMENT OF RMI

1. Specific obligations of the Government of RMI which will not be funded with the Grant

(1) Before the Bidding

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To sign the banking arrangement (B/A) with a bank in Japan (the Agent Bank) to open a bank account for the Grant	within 1 month after the signing of the G/A	Majuro Water and Sewer Company (MWSC) and Ministry of Finance (MOFA)		
2	To issue an authorization to pay (A/P) to the Agent Bank for the payment to the consultant	within 1 month after the signing of the contract(s)	MWSC and MOFA		
3	To bear the following commissions to the Agent Bank for the banking services based upon B/A		MWSC		
	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	MWSC		
	2) Payment commission for A/P	every payment	MWSC and MOFA		
4	To approve EIA (Conditions of approval should be fulfilled, if any) and secure the necessary budget of implementation for Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) (and fulfilling conditions of approval, if any).	within 1 month after the signing of the G/A	MWSC and Marshall Islands Environmental Protection Authority (MIEPA)		
5	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	until land acquisition and resettlement complete	MWSC and Ministry of Works Infrastructure Utilities (MWIU)		
6	To secure and clear as below				
6.1	To secure and clear the following lands		MWSC and MWIU		
	1) Project site for water reservoir at Majuro	by September 2019			
	2) Temporary construction yard and stock yard near the Project area	before notice of the bidding documents			
	3) Temporary access road to the Project area	before notice of the bidding documents			
6.2	To secure the following lands		MWSC and MWIU		
	1) Borrow pit and disposal site near the Project area	by September 2019			
6.3	Clarify the land issues		MWSC		

*The Preparatory Survey of the Project for Improvement of Water
Reservoir at Majuro Atoll*

NO	Items	Deadline	In charge	Estimated Cost	Ref.
7	To obtain the building permit	before notice of the bidding documents	MIEPA, MWIU and MWSC		
8	To submit Project Monitoring Report (with the result of Detailed Design)	before preparation of the bidding documents	MWSC		

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To issue A/P to the Agent Bank for the payment to the contractor	within 1 month after the signing of the contract(s)	MWSC and MOFA		
2	To bear the following commissions to the Agent Bank for the banking services based upon the B/A				
	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	MWSC		
	2) Payment commission for A/P	every payment	MWSC and MOFA		
3	To ensure prompt unloading and customs clearance at ports of disembarkation in the RMI and to assist the Supplier(s) with internal transportation therein	during the Project	MWSC		
4	To accord Japanese physical persons and/or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the RMI and stay therein for the performance of their work	during the Project	Ministry of Justice, Immigration and Labor supported by MWSC		
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the RMI with respect to the purchase of the goods and the services be exempted	during the Project	MWSC and MOFA		
6	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	during the Project	MWSC and MWIU		
7	To notify JICA promptly of any incident or accident, which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers	during the construction	MWSC		
8	1) To submit Project Monitoring Report	every month	MWSC		
	2) To submit Project Monitoring Report (final) (including as-built drawings, equipment list, photographs, etc.)	within 1 month after issuance of Certificate of Completion for the works under the contract(s)	MWSC		

*The Preparatory Survey of the Project for Improvement of Water
Reservoir at Majuro Atoll*

NO	Items	Deadline	In charge	Estimated Cost	Ref.
9	To submit a report concerning completion of the Project	within 6 months after completion of the Project	MWSC		
10	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the site(s)				
	1) Electricity The distributing line to the site	before start of the construction	MWSC and MWIU		
	2) Water Supply The city water distribution main to the site	before start of the construction	MWSC and MWIU		
	3) Drainage The city drainage main (for storm, sewer and others) to the site	before start of the construction	MWSC and MWIU		
11	To take measure necessary for security and safety of the Project - maintaining the safety of workers and the general public by thorough implementation of safety measures and immediate action in the case of accident - traffic control around the site(s) and on transportation routes of construction materials	during the construction	MWSC, MWIU Contractor should provide traffic control with MWSC/MWIU coordination of services		
12	To implement EMP and EMoP	during the construction	MWSC and MIEPA		
13	To submit results of environmental monitoring to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	during the construction	MWSC		

(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To implement EMP and EMoP	for a period based on EMP and EMoP	MWSC and MIEPA		
2	To submit results of environmental monitoring to JICA, by using the monitoring form, semiannually - The period of environmental monitoring may be extended if any significant negative impacts on the environment are found. The extension of environmental monitoring will be decided based on the agreement between MWSC and JICA.	for 3 years after the Project	MWSC		
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance structure 3) Routine check/Periodic inspection	After completion of the construction	MWSC		

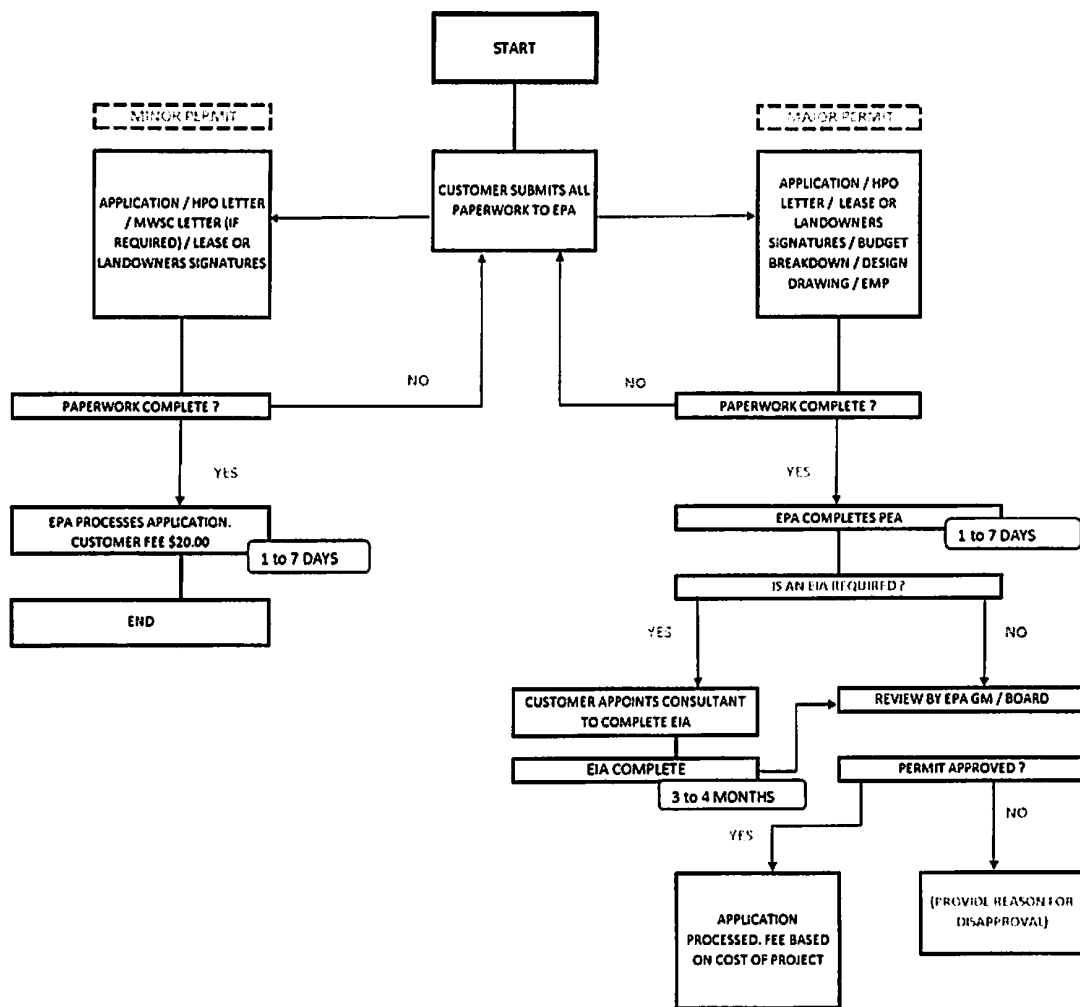
2. Other obligations of the Government of RMI funded with the Grant

NO	Items	Deadline	Amount (Million Japanese Yen)*
1	Construction of a rain water reservoir		
	Installation of the rain water transmission facilities		
2	Detailed design, tender assistance, supervision and soft component on the training of O&M		
3	Contingencies		
	Total		

*The Amount is provisional. This is subject to the approval of the Government of Japan.

PERMIT APPLICATION FLOWCHART

Annex 6



SUMMARY OF PROCEDURES

- Submit a planning proposal with design and map of area to EPA for review
- International consultant with qualifications, reputation and experience approved for undertaking EIA
- Scoping Report to identify key impacts for EIA Report
- Consultation with key stakeholders
- Submit Draft EIA and Environmental Management Plan for review
- Public Hearing
- EPA Board of Directors Approval/Rejection
- If approved, apply conditions based on mitigation measures to prevent impacts

List of Documents to be submitted by RMI

The following are the list of documents/data that the JICA Team requested for study of the Project but not yet delivered at the time of signing hereon:

1. To Marshall Water and Sewer Company (MWSC)

1.1 Water Supply Engineering

- (1) As-built drawings of Airport runway catchment
- (2) As-built drawings of Raw water transmission pipes
- (3) As-built drawings of Pump house No.4
- (4) As-built drawings of Raw water reservoirs including soil investigation report and design document of the reservoir wall and the water proof sheet
- (5) As-built drawings of Water treatment plant C
- (6) Design standards, specifications of water supply facilities including salinity protection
- (7) Operation and maintenance manuals of water supply facilities
- (8) Hourly operation record of existing raw water transmission pumps and filter transfer pumps for the past three years
- (9) Reports and documents related to household survey on customer satisfaction of water service levels
- (10) Organogram of MWSC
- (11) Information on number of staff and job descriptions by division or department
- (12) Performance indicators (PIs) of MWSC' water supply service
- (13) Financial statement in the past five years (For the purpose of studying management capacity of water supply services and examination of future O&M plan)
- (14) Information on current water supply services such as served population, number of connections, daily per-capita water consumption, hours of water rationing, service days a week, and water tariff system
- (15) Soil investigation data around the existing water reservoirs

2. To Ministry of Works, Infrastructure and Utilities

2.1 Coastal Engineering Sector

- (1) Typical cross section of coastal levee
- (2) Design wave and design water level (tide, etc.) of coastal levee
- (3) Location map of bench mark
- (4) Plan view drawings of airport
- (5) Location map of sand/ rock mining sites at Majuro
- (6) Unit cost of construction

3. To Environmental Protection Authority

3.1 Environmental and Social Consideration Sector

- (1) Guidelines or regulations on EIA and any other related documents other than Environmental Assessment Regulations, Earthmoving Regulations and Solid Waste Regulations
- (2) A flow chart showing the necessary procedures for EIA

3.2 Coastal Engineering Sector

- (1) Documents regarding ocean wave conditions at Majuro
- (2) Location map of sand/ rock mining sites at Majuro
- (3) SOPAC Technical Aggregate Report regarding the coastal erosion along Majuro coast
- (4) Reports regarding long-shore and cross-shore sediment transportation in Majuro
- (5) Reports regarding sea-level rise issues and the current countermeasures against sea-level rise

4. To Weather Service office

4.1 Coastal Engineering Sector

- (1) 30-year ocean wave data
- (2) Wind data
- (3) Hourly tide data (from 2005)
- (4) Storm/ typhoon data
- (5) Ambient temperature: maximum, mean, minimum
- (6) Relative humidity: maximum, mean, minimum
- (7) Rainfall data: annual and monthly rainfall intensity

4.2 Other Sector

- (1) Wind at altitude of 10 m from ground
- (2) Sunshine duration
- (3) Mean value of solar radiation
- (4) Seismic factor
- (5) Isoceraunic level

5. To Marshall Energy Company

5.1 Power Supply Sector

- (1) Information on organization (organization chart and number of staff) of MEC
- (2) Single line diagrams with power flow and impedance of facilities (each of generator, transmission lines and 13.8/4.16kV transformers)

6. To National Energy office

6.1 Power Supply Sector

- (1) Information on organization (organization chart and number of staff) of NEO

Minutes of Discussions
on the Preparatory Survey for the Project for
Improvement of Water Reservoir at Majuro Atoll
(Explanation on Draft Preparatory Survey Report)

With reference to the minutes of discussions signed among Ministry of Works, Infrastructure and Utilities, Majuro Water and Sewer Company, and the Japan International Cooperation Agency (hereinafter referred to as "JICA") on May 29th 2019, and in response to the request from the Government of Republic of the Marshall Islands (hereinafter referred to as "RMI"), dated July 24th 2019, JICA and RMI side held the TV conference for the explanation of Draft Preparatory Survey Report (hereinafter referred to as "the Draft Report") for the Project for Improvement of Water Reservoir at Majuro Atoll (hereinafter referred to as "the Project").

As a result of the discussions, both sides agreed on the main items described in the attached sheets.

Majuro, March 27th 2020

Tokyo, March 27th 2020



Yoshiara Shumon

Resident Representative

JICA Marshall Office

Japan International Cooperation Agency
Japan

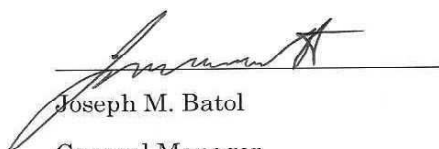


Hon. Jiba Kabua

Minister

Ministry of Works, Infrastructure and
Utilities

The Republic of the Marshall Islands



Joseph M. Batol

General Manager

Majuro Water and Sewer Company

The Republic of the Marshall Islands

ATTACHEMENT

1. Contents of the Draft Report

After the explanation of the contents of the Draft Report by JICA side, the RMI side agreed to its contents. JICA will finalize the Preparatory Survey Report based on the results of discussions. The report will be sent to the RMI side around June 2020.

2. Cost estimate and Contingency

Both sides confirmed that the cost estimate including the contingency explained by JICA side is provisional and will be examined further by the Government of Japan for its approval. The contingency would cover the additional cost against natural disaster, unexpected weather conditions, etc..

3. Confidentiality of the Cost Estimate and Technical Specifications

Both sides confirmed that the cost estimate and technical specifications of the Project should never be disclosed to any third parties until all the contracts under the Project are concluded.

4. Timeline for the Project Implementation

JICA side explained to the RMI side that the expected timeline for the project implementation is as attached in Annex 1.

5. Expected Outcomes and Indicators

Both sides agreed that key indicators for expected outcomes are as follows. The RMI side will be responsible for the achievement of agreed key indicators targeted in year 2026 and shall monitor the progress for Ex-Post Evaluation based on those indicators.

5.1 Quantitative indicators

It has been calculated that storage capacity of rainwater reservoir divided by daily water demand was "Total days that water can be supplied to Majuro by the WTP-C continuously in a drought period".

(1) Precondition of daily water demand estimate

- Service population: Approximately 30,000 persons (Based on assumed population as of 2019)
- Daily per-capita consumption: 20 gallon/capita/day (Based on "Water Sanitation Development Plan (2017)")



- Institution and commercial water consumption: based on the Drought Management Plan 2015: 490m³/day (Based on “Drought Management Plan 2015”)
- Non-Revenue Water (hereinafter referred to as “NRW”): Approximately 29.5 % (Based on the record in the past five years shown in “Capital Improvement Program Support Consultancy Service Phase 1”)
- Estimate of total individual water consumption: water taken from an individual rainwater storage tank should be deducted

(2) Quantitative indicators

Indicator	Baseline (Assumed baseline year: 2019)	Goal 2026 (Three years after the Project completion)
Total days that water can be supplied to Majuro by the WTP-C continuously in a drought period	55 days	77 days

As mentioned earlier, the ratio of NRW was based on the record in the past five years. The existing distribution networks will be deteriorated, which result in an increase of water demand as well as that of NRW year by year. Therefore, RMI side should daily strive reduction of NRW in order to not only achieve goal (77 days) but also further extend total days that water can be supplied to Majuro by the WTP-C continuously in a drought period.

In other words, since toughness of the new rainwater reservoir against drought is improved through the water conservation as well as reduction of NRW, RMI should steadily ensure water demand management.

5.2 Qualitative indicators

- (1) Improvement in quality of life and public hygiene through the improvement of water supply service such as reduction of water rationing.
- (2) Creating sound water cycle in a drought season by reduction of intake from fresh water lens layer.

6. Ex-Post Evaluation

7. JICA will conduct ex-post evaluation after three (3) years from the project completion, in principle, with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The RMI side is kindly requested to

provide necessary support for the data collection.

8. Undertakings of the Project

Both sides confirmed the undertakings as described in Annex 2. With regard to exemption of customs duties, internal taxes and other fiscal levies as stipulated in 1. (2) 5 of Annex 2, both sides confirmed that such customs duties, internal taxes and other fiscal levies, which shall be clarified in the bid documents by MWSC during the implementation stage of the Project.

The RMI side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the costs are indicative, i.e. at Outline Design level. More accurate costs will be calculated at the Detailed Design stage.

Both sides also confirmed that the Annex 2 will be used as an attachment of G/A.

Both sides confirmed that MWSC shall take necessary measures to ensure and maintain the security of the Project site and the persons related to the implementation of the Project, in cooperation with relevant authorities during the Project period. Such security measures shall reasonably reflect needs of the Consultant/the Contractor engaging in the Project, as shown in Annex 2.

9. Monitoring during the Implementation

The Project will be monitored by the Executing Agency and reported to JICA by using the form of Project Monitoring Report (PMR) attached as Annex 3. The timing of submission of the PMR is described in Annex 2.

10. Project Completion

Both sides confirmed that the Project will complete when all the facilities constructed and equipment procured by the Grant are in operation. The completion of the Project will be reported to JICA promptly, but in any event not later than six months after completion of the Project.

11. Environmental and Social Considerations

11-1 General Issues

11-1-1 Environmental Guidelines and Environmental Category

JICA side explained that 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as "the



Guidelines”) is applicable for the Project. The Project is categorized as B because The Project is not likely to have significant adverse impact on the environment under the JICA guidelines for environmental and social considerations (April 2010) in terms of its sectors, characteristics and areas.

11-1-2 Environmental Checklist

The environmental and social considerations including major impacts and mitigation measures for the Project are summarized in the Environmental Checklist attached as Annex 4. Both sides confirmed that in case of major modification of the content of the Environmental Checklist, the RMI side shall submit the modified version to JICA in a timely manner.

11-2 Environmental Issues

11-2-1 Environmental Impact Assessment (EIA)

Both sides confirmed the EIA report is not required for the Project in the country’s legal system.

11-2-2 Environmental Management Plan and Environmental Monitoring Plan

Both sides confirmed that the Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) of the Project shall be prepared by the Executing Agency before starting construction of the Project. Both sides agreed that environmental mitigation measures and monitoring shall be conducted based on the EMP and EMoP, which may be updated during the detailed design stage.

11-3 Social Issues (Land Acquisition)

Both sides confirmed the land of about 5.7 acre for the entire project site (Of about 5.7 acre, about 4.6 acre for the portion of Nakan Weto and Katoji Weto deemed as the land-fill area) would be acquired due to the implementation of the Project.

The RMI side explained that the Project site is RMI government property currently as it is located at marine area below the ordinary high watermarks. After the Project implementation, the land will belong to the owner of the adjoining lands (Nakan Weto and Katoji Weto). The RMI side explained that the rate of USD 4,000/acre/year is at under negotiation with these two lands (Wetoes) owners. The land lease agreement attached with minutes of



meetings with the two land (Wetoes) owners will be submitted to JICA Marshall office by May 2020.

11-4 Environmental and Social Monitoring

11-4-1 Environmental and Social Monitoring Form

Both sides agreed that the RMI side will submit results of environmental and social monitoring to JICA by using the monitoring form attached as Annex 5

. The timings of submission of the monitoring items are described in Annex 5.

11-4-2 Information Disclosure of Monitoring Results

Both sides confirmed that the RMI side will disclose results of environmental and social monitoring to local stakeholders through their website / in their field offices.

The RMI side agreed JICA will disclose results of environmental and social monitoring submitted by the RMI side as the monitoring forms attached as Annex 5 in its website.

12. Other Relevant Issues

12-1. Disclosure of Information

Both sides confirmed that the Preparatory Survey Report from which project cost is excluded will be disclosed to the public after completion of the Preparatory Survey. The comprehensive report including the project cost will be disclosed to the public after all the contracts under the Project are concluded.

12-2. Consideration for Climate Change

Based on the analysis results of field observation data and the sea level rise rates of the NOAA reports, it was judged that the sea level rise rate adopted by the nearby project was appropriate. Therefore, a sea level rise rate of 4.5 mm/year (0.23 m/50 years) was adopted for the Project.

12-3. Cover on Reservoir

Although installation of cover on the rainwater reservoir such as shade balls was examined by JICA Survey Team, the Project does not include any covers such as shade balls from the aspects of not only material cost but also efficiency and sustainability, because the shade balls must be removed partially, while solar power generation system will be installed in the proposed rainwater reservoir in the future.



Annex

Annex 1 Project Implementation Schedule

Annex 2 Major Undertakings to be taken by the Government of RMI

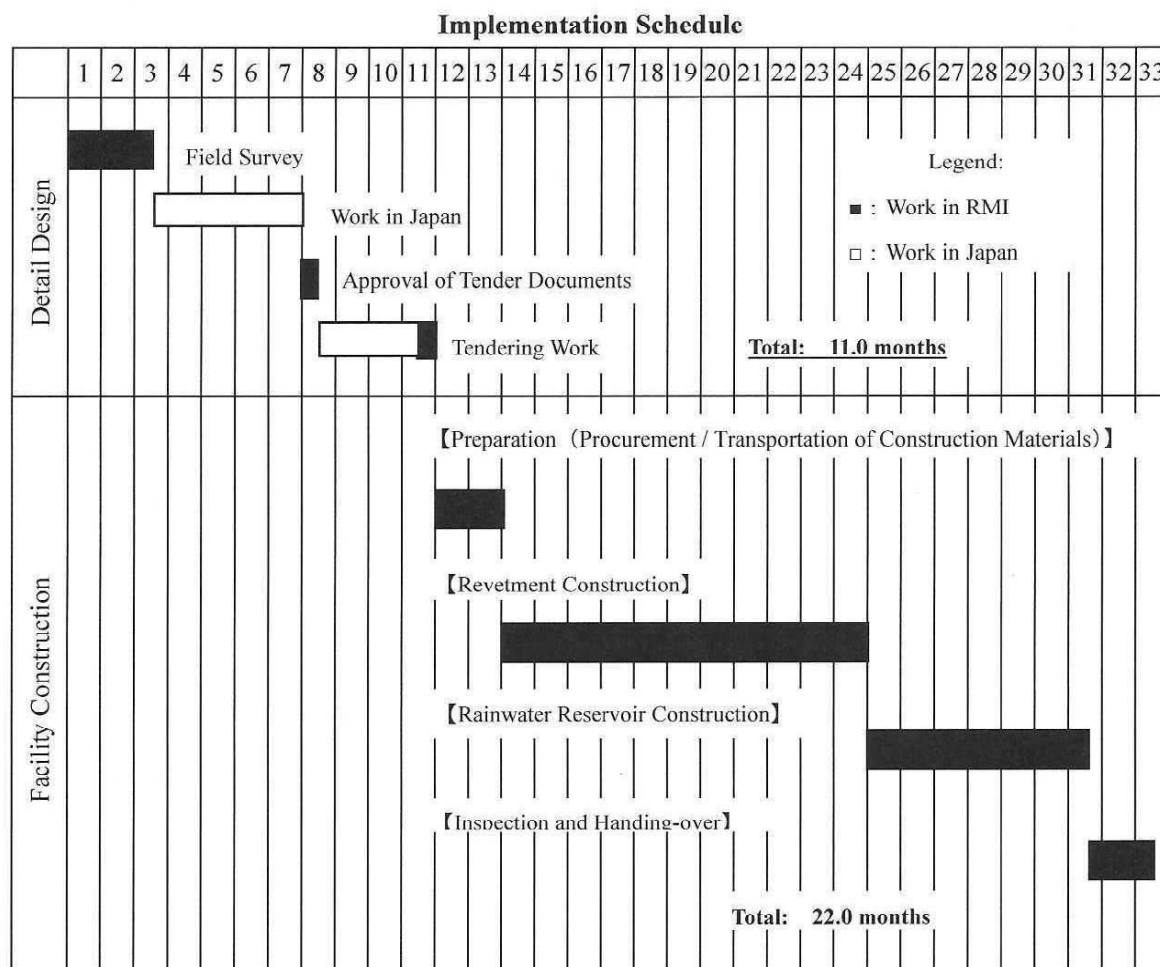
Annex 3 Project Monitoring Report (template)

Annex 4 Environmental Checklist

Annex 5 Environmental and Social Monitoring Form



Annex 1 Project Implementation Schedule



Annex 2

MAJOR UNDERTAKINGS TO BE TAKEN BY THE GOVERNMENT OF RMI

1. Specific obligations of the Government of RMI which will not be funded with the Grant

(1) Before the Bidding

NO	Items	Deadline	In charge	Estimated Cost (USD)	Ref.
1	To sign the banking arrangement (B/A) with a bank in Japan (the Agent Bank) to open a bank account for the Grant	within 1 month after the signing of the G/A	Majuro Water and Sewer Company (MWSC) and Ministry of Finance (MOFA)	0	
2	To issue an authorization to pay (A/P) to the Agent Bank for the payment to the consultant	within 1 month after the signing of the contract(s)	MWSC and MOFA	0	
3	To bear the following commissions to the Agent Bank for the banking services based upon B/A		MWSC	-	
	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	MWSC	234	Source: Past Project considering inflation
	2) Payment commission for A/P	every payment	MWSC and MOFA	23,400	Source: Past Project considering inflation
4	To approve EIA (Conditions of approval should be fulfilled, if any) and secure the necessary budget of implementation for Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) (and fulfilling conditions of approval, if any).	within 1 month after the signing of the G/A	MWSC and Marshall Islands Environmental Protection Authority (MIEPA)	0	
5	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	until land acquisition and resettlement complete	MWSC and Ministry of Works Infrastructure Utilities (MWIU)	0	
6	To secure and clear as below			-	
6.1	To secure and clear the following lands		MWSC and MWIU	-	
	1) Project site for water reservoir at Majuro	by September 2019		0	
	2) Temporary construction yard and stock yard near the Project area	before notice of the bidding documents		0	
	3) Temporary access road to the Project area	before notice of the bidding documents		0	
6.2	To secure the following lands		MWSC and MWIU	-	

The Preparatory Survey of the Project for Improvement of Water Reservoir at Majuro Atoll

NO	Items	Deadline	In charge	Estimated Cost (USD)	Ref.
	1) Borrow pit and disposal site near the Project area	by September 2019		0	
6.3	Clarify the land issues		MWSC	0	
7	To obtain the building permit	before notice of the bidding documents	MIEPA, MWIU and MWSC	0	
8	To submit Project Monitoring Report (with the result of Detailed Design)	before preparation of the bidding documents	MWSC	0	

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

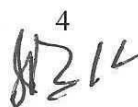
(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost(USD)	Ref.
1	To issue A/P to the Agent Bank for the payment to the contractor	within 1 month after the signing of the contract(s)	MWSC and MOFA	0	
2	To bear the following commissions to the Agent Bank for the banking services based upon the B/A			-	
	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	MWSC	234	Source: Past Project considering inflation
	2) Payment commission for A/P	every payment	MWSC and MOFA	23,400	Source: Past Project considering inflation
3	To ensure prompt unloading and customs clearance at ports of disembarkation in the RMI and to assist the Supplier(s) with internal transportation therein	during the Project	MWSC	380	Source: Ports Authority Revised Tariff - Seaport
4	To accord Japanese physical persons and/or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the RMI and stay therein for the performance of their work	during the Project	Ministry of Justice, Immigration and Labor supported by MWSC	0	
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the RMI with respect to the purchase of the goods and the services be exempted	during the Project	MWSC and MOFA	0	
6	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	during the Project	MWSC and MWIU	0	
7	To notify JICA promptly of any incident or accident, which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers	during the construction	MWSC	0	
8	1) To submit Project Monitoring Report	every month	MWSC	0	
	2) To submit Project Monitoring Report (final) (including as-built drawings, equipment list, photographs, etc.)	within 1 month after issuance of Certificate of Completion for the works under the contract(s)	MWSC	0	
9	To submit a report concerning completion of the Project	within 6 months after completion of the Project	MWSC	0	
10	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the site(s)			-	
	1) Electricity	before start of the	MWSC	3,500	Source:

*The Preparatory Survey of the Project for Improvement of Water
Reservoir at Majuro Atoll*

	The distributing line to the site	construction	and MWIU		MWSC
2)	Water Supply The city water distribution main to the site	before start of the construction	MWSC and MWIU	3,000	Source: MWSC
3)	Drainage The city drainage main (for storm, sewer and others) to the site	before start of the construction	MWSC and MWIU	4,000	Source: local contractor
11	To take measure necessary for security and safety of the Project - maintaining the safety of workers and the general public by thorough implementation of safety measures and immediate action in the case of accident - traffic control around the site(s) and on transportation routes of construction materials	during the construction	MWSC, MWIU Contractor should provide traffic control with MWSC/MWIU coordination of services	0	
12	To implement EMP and EMoP	during the construction	MWSC and MIEPA	0	
13	To submit results of environmental monitoring to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	during the construction	MWSC	0	



4




(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To implement EMP and EMoP	for a period based on EMP and EMoP	MWSC and MIEPA	0	
2	To submit results of environmental monitoring to JICA, by using the monitoring form, semiannually - The period of environmental monitoring may be extended if any significant negative impacts on the environment are found. The extension of environmental monitoring will be decided based on the agreement between MWSC and JICA.	for 3 years after the Project	MWSC	0	
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance structure 3) Routine check/Periodic inspection	After completion of the construction	MWSC	0	

2. Other obligations of the Government of RMI funded with the Grant

NO	Items	Deadline	Amount (Million Japanese Yen)*
1	Construction of a rain water reservoir		
	Installation of the rain water transmission facilities		
2	Detailed design, tender assistance and supervision on the training of O&M		
3	Contingencies		
	Total		

*The Amount is provisional. This is subject to the approval of the Government of Japan.



6 



Project Monitoring Report
on
Project Name
Grant Agreement No. XXXXXXXX
20XX, Month

Organizational Information

Signer of the G/A (Recipient)	Person in Charge (Designation)	_____
	Contacts	_____
	Address:	_____
	Phone/FAX:	_____
	Email:	_____
Executing Agency	Person in Charge (Designation)	_____
	Contacts	_____
	Address:	_____
	Phone/FAX:	_____
	Email:	_____
Line Ministry	Person in Charge (Designation)	_____
	Contacts	_____
	Address:	_____
	Phone/FAX:	_____
	Email:	_____

General Information:

Project Title	
E/N	Signed date: Duration:
G/A	Signed date: Duration:
Source of Finance	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____



1 



1: Project Description

1-1 Project Objective

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1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

--

1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr)	Target (Yr)
Qualitative indicators to measure the attainment of project objectives		

2: Details of the Project

2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)

--





2-3 Implementation Schedule

Items	Original		Actual
	(proposed in the outline design)	(at the time of signing the Grant Agreement)	

Reasons for any changes of the schedule, and their effects on the project (if any)

--

2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations

See Attachment 2.

2-4-2 Activities

See Attachment 3.

2-4-3 Report on RD

See Attachment 11.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original ^{1),2)} (proposed in the outline design)	Actual
	1.			
Total				

Note: 1) Date of estimation:

2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

Components			Cost (1,000 Taka)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original ^{1),2)} (proposed in the outline design)	Actual
	1.			

3 



Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original (at the time of outline design) name: role: financial situation: institutional and organizational arrangement (organogram): human resources (number and ability of staff):
Actual (PMR)

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

Original (at the time of outline design)
Actual (PMR)

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

Original (at the time of outline design)

Actual (PMR)

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks (at the time of outline design)

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
2. (Description of Risk)	Probability: High/Moderate/ Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
3. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:

	Contingency Plan (if applicable):
Actual Situation and Countermeasures	
(PMR)	

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

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5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

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5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

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Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
 - Consultant Member List
 - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/Agreement and Schedule of Payment)
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
8. Pictures (by JPEG style by CD-R) (PMR (final) only)
9. Equipment List (PMR (final) only)
10. Drawing (PMR (final) only)
11. Report on RD (After project)



Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

	Items of Specified Materials	Initial Volume A	Initial Unit Price (¥) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment	
						Price (Decreased) E=C-D	Price (Increased) F=C+D
1	Item 1	●●t	●	●	●	●	●
2	Item 2	●●t	●	●	●		
3	Item 3						
4	Item 4						
5	Item 5						

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

	Items of Specified Materials	1st month, 2015	2nd month, 2015	3rd month, 2015	4th	5th	6th
1	Item 1	●	●	●			
2	Item 2						
3	Item 3						
4	Item 4						
5	Item 5						

(3) Summary of Discussion with Contractor (if necessary)

. . .

Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

Environmental Checklist: 14. Water Supply (1)

Annex 4

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
1 Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	(a) Y (b) N (c) N (d) N	(a) The General Manager of RMIEPA has decided that an EIA is not required for this project. (b) As above mentioned. (c) As above mentioned. (d) MWSC has submitted the Earthmoving Permit Application and RMIEPA has issued the permit
	(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders? (b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?	(a) Y (b) Y	(a) Stakeholders meetings were held 4 times and the participants agreed to the construction of the water reservoir. (b) Comments have been reflected.
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	(a) Y	(a) Alternative options including the zero option were considered comprehensively including environmental and social impacts and results are reported.
2 Pollution Control	(1) Air Quality	(a) Is there a possibility that chlorine from chlorine storage facilities and chlorine injection facilities will cause air pollution? Are any mitigating measures taken? (b) Do chlorine concentrations within the working environments comply with the country's occupational health and safety standards?	(a) N (b) Y	(a) Chlorine storage facility is located near the reservoirs where there are no residences within a 500m (550 yd) radius. (b) RMI does not have occupational health and safety standards for chlorine, but USOSHA regulations are applied.
	(2) Water Quality	(a) Do pollutants, such as SS, BOD, COD contained in effluents discharged by the facility operations comply with the country's effluent standards?	(a) Y	(a) RMI does not have effluent standards, but since the water source is rainwater, water quality of plant effluent is expected to be in conformity with effluent standards of neighboring countries such as SPREP (Secretariat of the Pacific Regional Environment Programme), Cook Islands and Fiji.
	(3) Wastes	(a) Are wastes, such as sludge generated by the facility operations properly treated and disposed in accordance with the country's regulations?	(a) Y	(a) Water treatment does not generate sludge, but the effluent is slightly turbid not enough to impact the environments as confirmed by MWSC.
	(4) Noise and Vibration	(a) Do noise and vibrations generated from the facilities, such as pumping stations comply with the country's standards?	(a) Y	(a) RMI does not have regulations on noise and vibration, but applies the USOSHA standard of <85dB, but there are no residences within a 550 yd radius.
	(5) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	(a) N	(a) Rainwater is used as the water source and groundwater is not extracted.
3 Natural Environment	(1) Protected Areas	(a) Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	(a) N	(a) There are no protected areas in and around the project site.
	(2) Ecosystem	(a) Does the project site encompass primeval forests, tropical rain forests ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)? (b) Does the project site or discharge area encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions? (c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem? (d) Is there a possibility that the amount of water used (e.g., surface water, groundwater) by project will adversely affect aquatic environments, such as rivers? Are adequate measures taken to reduce the impacts on aquatic environments, such as aquatic organisms?	(a) Y (b) N (c) N (d) N	(a) The geology of Majuro is coral derived limestone, but there is no coral coverage in the project area (b) The coastal characteristics of Majuro Atoll are almost homogeneous and special biological habitats are not found in the project site. Although a few endemic and endangered species may exist, the project site is not registered as a protected area. If any species appear at the construction site, they will be driven away or removed to a safe area. (c) Ecological impacts are minimal. (d) Water source is rainwater, groundwater is not extracted and there are no surface water sources.
	(3) Hydrology	(a) Is there a possibility that the amount of water used (e.g., surface water, groundwater) by the project will adversely affect surface water and groundwater flows?	(a) N	(a) Water source is rainwater.

Environmental Checklist: 14. Water Supply (2)

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
4 Social Environment	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement? (b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement? (c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement? (d) Is the compensation going to be paid prior to the resettlement? (e) Is the compensation policies prepared in document? Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples? (g) Are agreements with the affected people obtained prior to resettlement? (h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan? (i) Are any plans developed to monitor the impacts of resettlement? (j) Is the grievance redress mechanism established?	(a) N (b) N/A (c) N/A (d) N/A (e) N/A (f) N/A (g) N/A (h) N/A (i) N/A (j) N/A	(a) Involuntary resettlement is not involved in the project area. (b) Not applicable (c) Not applicable (d) Not applicable (e) Not applicable (f) Not applicable (g) Not applicable (h) Not applicable (i) Not applicable (j) Not applicable
	(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary? (b) Is there a possibility that the amount of water used (e.g., surface water, groundwater) by the project will adversely affect the existing water uses and water area uses?	(a) N (b) N	(a) Construction of the reservoir will reduce the impact of reduced water supply during droughts to improve the living conditions and livelihood. (b) Since rainwater is used, there is no impact on existing water use.
	(3) Heritage	(a) Is there a possibility that the project will damage the local archaeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?	(a) N	(a) There are no archaeological, historical, cultural or heritage sites around the project area.
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	(a) Y	(a) The tidal flat landscape will change to a reservoir landscape, but the reservoir is located 420 yd away from the airport and the airport terminal is a one-story building with a viewpoint about 5 ft above ground. Therefore, it is difficult to see the embankment forming the boundary between the reservoir and the sea, and to distinguish between the water surface of the reservoir and the sea. The nearest residence is about 1 mi away.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	(a) N (b) N	(a) There are no ethnic minorities or indigenous people around the project site. (b) There are no ethnic minorities or indigenous people around the project site.
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project? (b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	(a) Y (b) Y (c) Y (d) Y	(a) MWSC will request the Contractor to take necessary measures such as holding morning assembly and training sessions to secure the safety of workers, individuals involved and local residents. (b) As above mentioned. (c) As above mentioned. (d) As above mentioned.

Environmental Checklist: 14. Water Supply (3)

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
5 Others	(1) Impacts during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts? (d) If the construction activities might cause traffic congestion, are adequate measures considered to reduce such impacts?	(a) Y (b) Y (c) Y (d) Y	(a) Based on the mitigation measures prepared by RMIEPA and JICA Survey Team, an Environmental Management Plan (EMP) will be prepared according to the contract between MWSC and the contractor. (b) As above mentioned. (c) As above mentioned. (d) As above mentioned.
	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring program? (c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)? (d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?	(a) Y (b) Y (c) Y (d) Y	(a) Based on the monitoring plan prepared by RMIEPA and JICA Survey Team, the contractor will prepare the Environmental Monitoring Plan (EMoP) and MWSC will supervise the monitoring activities in accordance with the EMoP. (b) The EMoP will be prepared in accordance with the JICA Guidelines. (c) To ensure proper implementation of the EMoP, MWSC will supervise the contractor before and during the construction. (d) Those are stipulated in EMoP.
6 Note	Reference to Checklist of Other Sectors	(a) Where necessary, pertinent items described in the Dam and River Projects checklist should also be checked.	(a) N/A	(a) Not applicable
	Note on Using Environmental Checklist	(a) If necessary, the impacts to transboundary or global issues should be confirmed (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).	(a) N	(a) No impacts are expected.

1) Regarding the term "Country's Standards" mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are required to be made.

In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan's experience)

2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which the project is located.

Environmental and Social Monitoring Form

1. During Construction

— Air Pollution

Monitoring Item	Remarks (Measurement point, frequency, method)
Vehicle exhaust gas and construction dust	Around construction site, Weekly, Visual inspection of vehicle movements and maintenance records as well as construction area water spraying

— Water Pollution

Monitoring Item	Remarks (Measurement point, frequency, method)
Turbidity in ocean and lagoon	Around construction site, Weekly, Visual inspection (confirm turbidity of waters)

Item (Unit)	Measured Value (Mean)	Measured Value (Maximum)	EPA Standard	EHS ¹ Standard	Japanese Standard	Remarks (Measurement point, frequency, method)
pH			6-9	6-9	5-9	Coastal area around construction site, Weekly, water quality analysis
EC (μS/cm)			1,000	-	-	Coastal area around construction site, Weekly, water quality analysis
COD (mg/l)			40	125	2	Coastal area around construction site, Weekly, water quality analysis
Oil (mg/l)			-	10	No oil film	Coastal area around construction site, Weekly, water quality analysis
Enterococci (MPN/100mL)			104	-	-	Coastal area around construction site, Weekly, water quality analysis

— Solid Waste

Monitoring Item	Remarks (Measurement point, frequency, method)
Proper collection and disposal of construction waste, and cleaning of construction site	Construction site, Weekly, Visual inspection (confirm collection and disposal of construction waste and cleaning of construction area)

— Noise and Vibration

Item (Unit)	Measured Value (Mean)	Measured Value (Maximum)	RMI Standard	USOSHA Standard	EHS ² Standard	Remarks (Measurement point, frequency, method)
Noise Level (dB)			None	<85	<70	Around construction site, Weekly, Noise level meter

¹ Environmental, Health and Safety (EHS) Guidelines, Wastewater and Ambient Water Quality, IFC/WB

² Environmental, Health and Safety (EHS) Guidelines, Noise Management, IFC/WB

Annex 5

—Bottom Sediments

Monitoring Item	Remarks (Measurement point, frequency, method)
Temporary impacts on bottom sediments at construction site	Around construction site, Weekly Visual inspection (confirm impacts on bottom sediments)

—Ecosystems

Monitoring Item	Remarks (Measurement point, frequency, method)
Temporary impacts on ecology at construction site	Around construction site, Several times daily, Visual inspection (confirm impacts on fauna and flora)

—Existing Social Infrastructures and Social Services

Monitoring Item	Remarks (Measurement point, frequency, method)
Securing access route around construction site, and complaints from community	Around construction site, Once, Survey around site (confirm access and conduct hearings)

—Infectious Diseases

Monitoring Item	Remarks (Measurement point, frequency, method)
Health conditions of workers	Construction site, Weekly, Health records and hearing from workers

—Accidents

Monitoring Item	Remarks (Measurement point, frequency, method)
Accidents during construction, and complaints from community	Around construction site, Weekly, Accident records and survey around site (hearings)

—Quarry and Sand Mining

Monitoring Item	Remarks (Measurement point, frequency, method)
Change in environment around quarry and sand pit such as existence of coral Complaints from community	Around quarry and sand pit, Before and during construction, Visual inspection (confirm impact on environment) and hearings

2. During Operation

—Noise and Vibration

Item (Unit)	Measured Value (Mean)	Measured Value (Maximum)	RMI Standard	USOSHA Standard	EHF Standard	Remarks (Measurement point, frequency, method)
Noise Level (dB)			None	<85	<70	Around WTP, Weekly, Noise level meter

—Infectious Diseases

Monitoring Item	Remarks (Measurement point, frequency, method)
Health conditions of staff	WTP, Weekly, Health records and hearings from staff