

<Preparatory Survey>

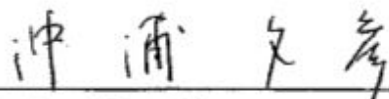
**MINUTES OF DISCUSSIONS  
ON  
THE PREPARATORY SURVEY (PHASE II)  
ON  
THE PROJECT FOR REHABILITATION AND EXPANSION  
OF WATER FACILITIES  
IN SOUTHERN GOVERNORATES OF TAFIELEH AND MA'AN  
IN THE HASHEMITE KINGDOM OF JORDAN**

Based on the results of the Preparatory Survey, the Government of Japan decided to conduct a Preparatory Survey (Phase 2) on the Project for Rehabilitation and Expansion of the Water Facilities in Southern Governorates of Tafieleh and Ma'an (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

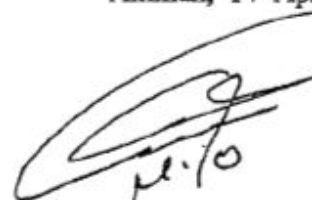
JICA sent to Jordan the Preparatory Survey (Phase 2) Team ( hereinafter referred to as "the Team" ), which is headed by Mr. Fumihiko Okiura, Director, Water Resources Management Division I, Water Resources and Disaster Management Group, Global Environment Department, JICA, and is scheduled to stay in the country from April 10 to July 15, 2010.

The Team held discussions with the officials concerned of the Government of Jordan. In the course of discussions and field survey, both sides confirmed the main items described in the attached sheets. The Team will proceed to further works and prepare the Preparatory Survey Report.

Amman, 14 April, 2010



**Mr. Fumihiko Okiura**  
Leader,  
The Preparatory Survey (Phase 2) Team  
Japan International Cooperation Agency  
Japan



**Eng. Munir Oweis**  
Secretary General,  
Water Authority of Jordan (WAJ)  
Ministry of Water and Irrigation  
The Hashemite Kingdom of Jordan

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to ensure stable and safe potable water supply in the target areas by improving water supply system through rehabilitating and expanding water supply facilities.

### 2. Project Site

The site of the Project is the Southern Governorates of Tafieleh and Ma'an as shown in **Annex-1**. The requested water service areas within the governorates are shown in **Annex-2**.

### 3. Responsible and Implementing Agency

- 3-1) The Responsible Agency is the Ministry of Water and Irrigation.
- 3-2) The Implementing Agency is the Water Authority of Jordan (hereinafter referred to as "WAJ"). The Organization chart of WAJ is shown in **Annex-3**

### 4. Items Requested by the Government of Jordan

After discussions with the Jordanian side and the Team (hereinafter referred to as "both sides"), the items described in **Annex-4** were finally requested by the Jordanian side.

Both sides confirmed that the appropriateness of the request would be examined in accordance with the further studies and analysis in Japan and the final components of the Project would be decided by the Japanese side.

### 5. Japan's Grant Aid Scheme

- 5-1) The Jordanian side understands the Japan's Grant Aid Scheme explained by the Team, as described in **Annex-5**.
- 5-2) The Jordanian side will take the necessary measures, as described in **Annex-6**, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

## **6. Schedule of the Survey**

- 6-1) The consultant members of the Team will proceed to further studies in Jordan until July 15, 2010.
- 6-2) JICA will prepare the draft final report in English and dispatch a mission in order to explain its contents to Jordanian side around October 2010.
- 6-3) In case that the contents of the final report are accepted in principle by the Jordanian side, JICA will finalize the report and send it to the Jordanian side around December 2010.
- 6-4) The Jordanian side understands that execution of the Preparatory Survey (Phase 2) (hereinafter referred to as "the Survey") does not necessarily imply the Japanese Government's commitment of the project implementation.

## **7. Other Relevant Issues**

### **7-1) Review of the existing water supply plan**

Both sides confirmed that the Team will review the plan, "Upgrading and Expansion of Water Facilities at Tafelieh and Ma'an (target year: 2025)" and the Jordanian side will update the existing plan based on the result of the review to strengthen the efficiency and effectiveness of the Project. The review will be conducted for the five (5) main water supply systems at Tafelieh and Ma'an, including Tafelieh City, Tafelieh South, Hussiniyyeh and Hashemiyyeh, Ashari, Abu Dneesh and Ma'an City, and the contents shall be as follows:

- Water Supply and demand plan
- Transmission and distribution plan
- Facility plan of transmission and distribution mains

### **7-2) Target year**

The Team explained that the target year of the Project is set up as the year immediately after the construction because Japan's grant aid aims to implement the project components to meet the urgent needs in the Project area. Both sides confirmed that the target year of the Project shall be 2015 though the Project is requested by the plan, "Upgrading and Expansion of Water Facilities at Tafelieh and Ma'an (target year: 2025)". However, the target year for pipelines would be 2025 because of the difficulty of the stepwise expansion of pipe capacity.

### 7-3) Target areas

The target areas are examined by the criteria agreed on the Preparatory Survey, and both sides confirmed the tentative target areas are as follows:

- i) Tafieleh City
- ii) Tafieleh South
- iii) Ma'an City

### 7-4) Policy of the outline design

Both sides agreed that the outline design will be done according to the following technical consideration to establish efficient water supply systems:

- Separation of transmission from distribution system
- Gravity distribution from service reservoir
- Optimization of energy use in the system, especially for pumping facilities
- Adequate definition of District Metered Area (DMA)
- Adequate selection and location of pressure reducing facilities
- Adequate replacement of existing pipes including asbestos pipes

### 7-5) Measures to be taken by the Jordanian side

1) Both sides confirmed that the Jordanian side will implement following works in the Project area by the completion of the Project:

- The procurement and installation of branch pipelines of diameter less than 63 mm in Tafieleh and less than 100 mm in Ma'an.
- Replacement of the service connection.

2) The Jordanian side agreed to allocate enough budgets for implementation of necessary measures as the schedule described in **Annex-7**, and to submit a document that certified to secure the budgets to the explanation team of the draft final report.

3) The Jordanian side agreed to assign the counterpart personnel in charge of the following works during their stay in the Hashemite Kingdom of Jordan, and both sides confirmed the structure of the counterpart team for the Project shown in **Annex-8**:

- Project coordination
- GIS
- Facility design and cost estimation
- Operation and maintenance for water supply systems

4) The Jordanian side stated that WAJ will secure the land for the planned water reservoirs and pressure reducing facilities and pumping stations before the commencement of the construction by the Japanese side.

#### **7-6) Technical assistance ("Soft Component" of the Project)**

The Jordanian side requested the technical assistance on the appropriate distribution management of water flow and pressure for the overall water supply system to promote the sustainable and effective operation of the facilities constructed in the Project. The Team agreed to study its necessity and if it was confirmed, the implementation of technical assistance as soft component would be considered in the Project.

#### **7-7) Tax exemption**

Both sides confirmed that the tax exemption including Value Added Tax (VAT), custom duty, and any other taxes and fiscal levies in Jordan which is to be arisen from the Project activities will be ensured by WAJ. WAJ will take any procedures necessary for tax exemption, and in case that tax exemption is not secured, the cost of tax will be covered by WAJ.

#### **7-8) Overlapping with other projects**

Both sides confirmed that the Project would not be overlapped with any other project supported by other donor agencies, NGOs, and Jordanian official organizations. Both sides will coordinate the soft component of the Project and the "Water/Wastewater Infrastructure Project" (2010-2015) prepared by the USAID to avoid overlapping. The final soft component will be decided by the explanation of the draft final report.

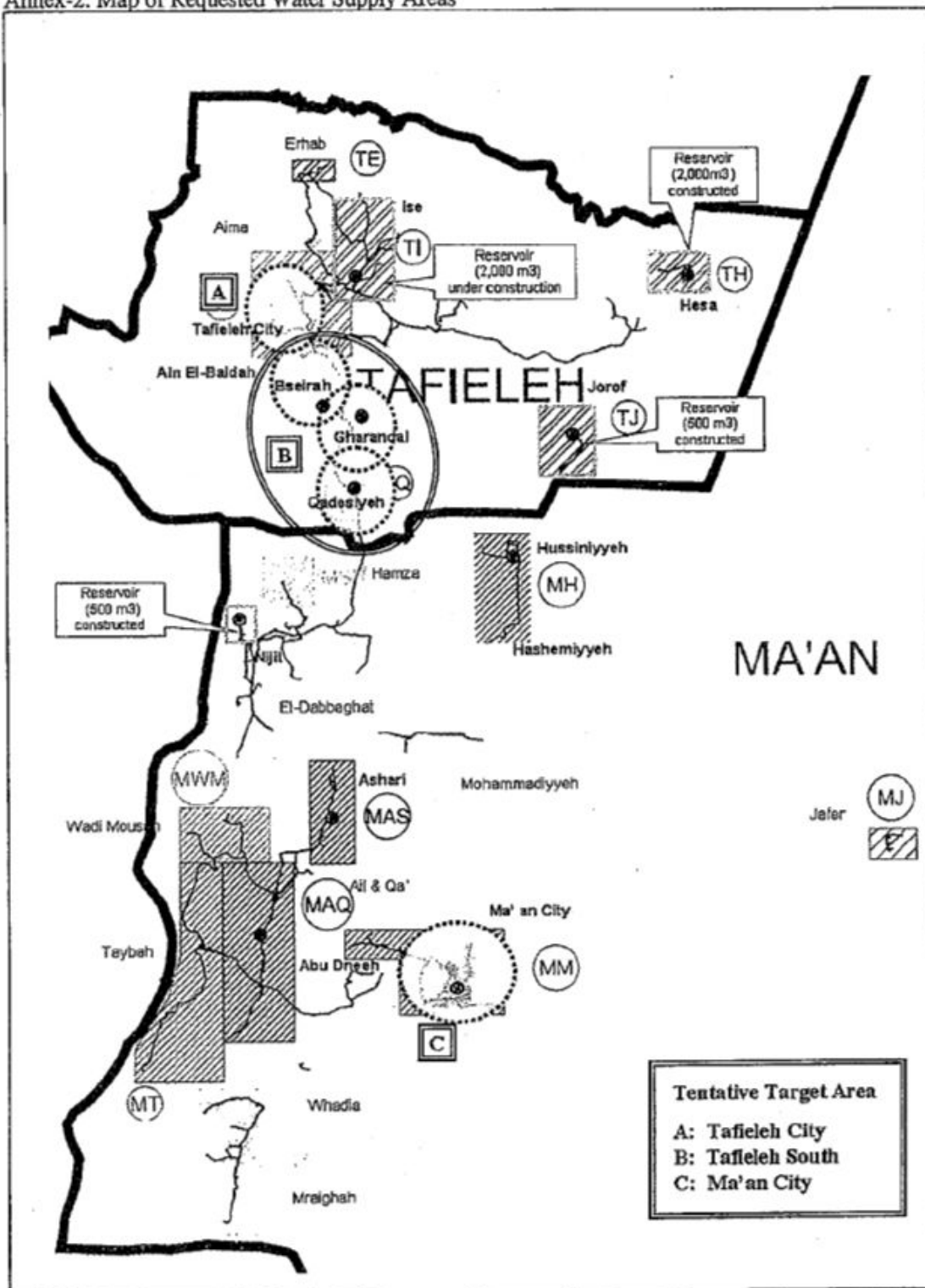
#### **7-9) Environmental Impact Assessment (EIA)**

Both sides confirmed that the Jordanian side will confirm on non-requirement of EIA with Ministry of Environment and will obtain the official letter on this matter after the Project scope is fixed. In case that the Survey indicates necessity of EIA for implementing the Project, the Jordanian side is responsible for taking any measures to complete EIA.

|         |                                                          |
|---------|----------------------------------------------------------|
| Annex-1 | Project Sites Map                                        |
| Annex-2 | Map of Requested Water Supply Areas                      |
| Annex-3 | Organization Chart of WAJ                                |
| Annex-4 | Items Requested by the Jordanian Side                    |
| Annex-5 | Japan's Grant Aid Scheme                                 |
| Annex-6 | Major Undertakings to be taken by Each Government        |
| Annex-7 | Tentative Schedule of Measures to be taken by Both Sides |
| Annex-8 | Structure of Counterpart Team                            |

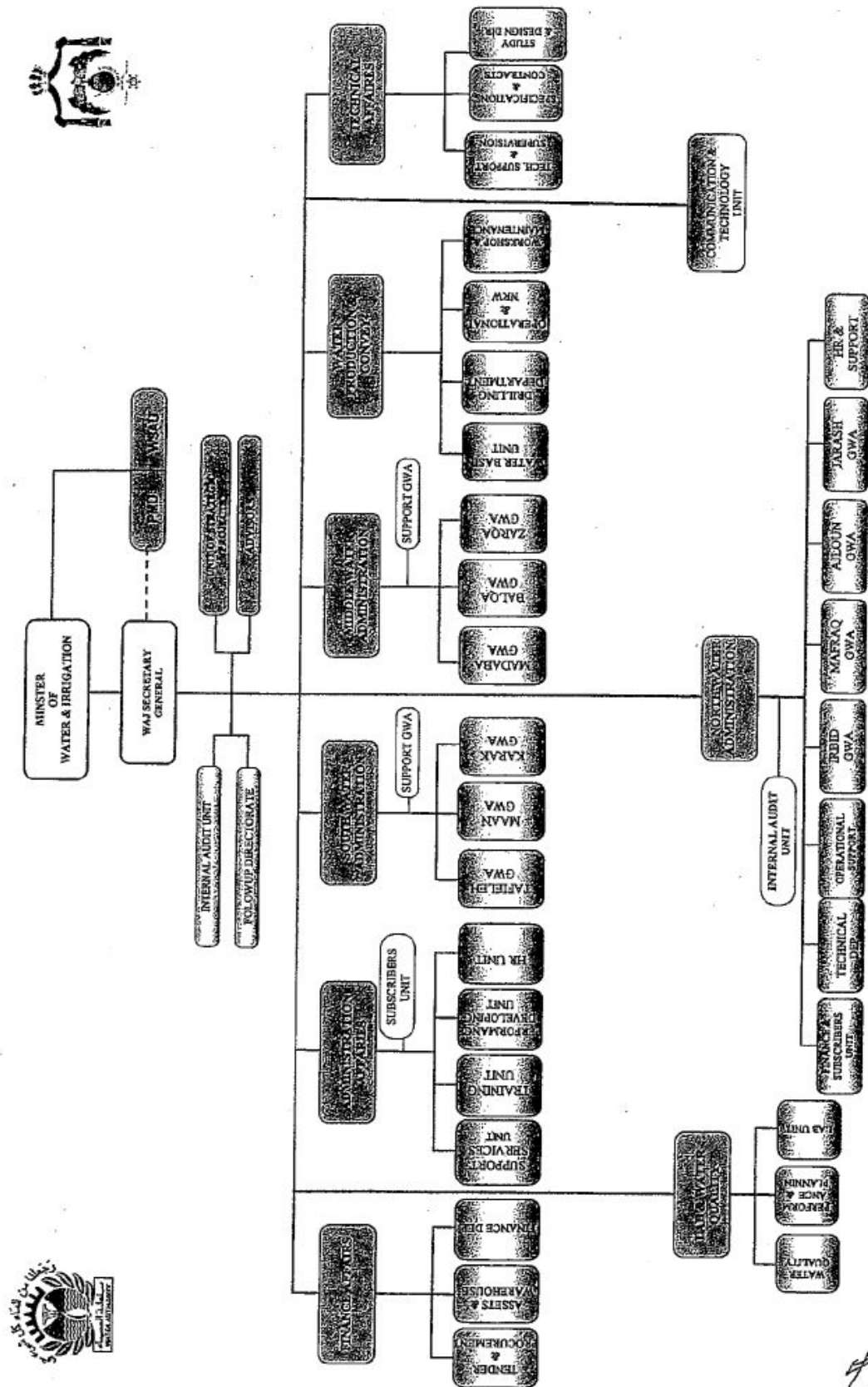
The map displays Jordan and its neighboring countries: Syria to the north, Iraq to the northeast, Saudi Arabia to the east and south, and Israel to the west. Major cities like Amman (Jordan's capital), Beirut, Damascus, Baghdad, and Jerusalem are marked. The Mediterranean Sea is visible to the west. A specific area in the southern part of Jordan is highlighted with a hatched pattern and labeled 'Requested Region'. This region is situated between the Ma'an Governorate to the south and the Tafilah Governorate to the north. The map also shows various governorates (muhafazah) and their capitals. A legend in the bottom right corner explains the symbols used for international boundaries, governorate boundaries, national and governorate capitals, railroads, expressways, and rivers. A scale bar indicates distances in kilometers (0 to 50) and miles (0 to 50). A note mentions that a governorate has the same name as the coastal area where it is located. The map is based on the 1963 edition of the CIA World Factbook.

Annex-2: Map of Requested Water Supply Areas





Annex-3: Organization Chart of WAJ



Annex-4: Items Requested by the Jordanian Side

| Tentative Target Area                                                                                                            | Items                      |        | Responsibility |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------|----------------|
| <b>Tafieleh Governorate</b><br>(1) Tafieleh City<br>(2) Tafieleh South<br>- El-Baidha<br>- Bseira<br>- Gharandal<br>- Qhadesiyeh | Reservoir                  |        | Japan          |
|                                                                                                                                  | Pipe                       | 25 mm  | Jordan         |
|                                                                                                                                  |                            | 32 mm  | Jordan         |
|                                                                                                                                  |                            | 63 mm  | Japan          |
|                                                                                                                                  |                            | 100 mm | Japan          |
|                                                                                                                                  |                            | 150 mm | Japan          |
|                                                                                                                                  |                            | 200 mm | Japan          |
|                                                                                                                                  |                            | 300 mm | Japan          |
|                                                                                                                                  | Pump Station               |        | Japan          |
|                                                                                                                                  | Flow Meter                 |        | Japan          |
|                                                                                                                                  | Pressure Reducing Facility |        | Japan          |
| <b>Ma'an Governorate</b><br>(3) Ma'an City<br>-                                                                                  | Pipe                       | 25 mm  | Jordan         |
|                                                                                                                                  |                            | 32 mm  | Jordan         |
|                                                                                                                                  |                            | 63 mm  | Jordan         |
|                                                                                                                                  |                            | 100 mm | Japan          |
|                                                                                                                                  |                            | 150 mm | Japan          |
|                                                                                                                                  |                            | 200 mm | Japan          |
|                                                                                                                                  |                            | 300 mm | Japan          |
|                                                                                                                                  | Flow Meter                 |        | Japan          |

## Annex-5: JAPAN'S GRANT AID SCHEME

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and 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. The Grant Aid is not supplied through the donation of materials as such.

### 1. Grant Aid Procedures (Attachment 1)

The Japanese Grant Aid is supplied through following procedures:

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - Agreement concluded between JICA and a recipient country
- Implementation
  - Implementation of the Project on the basis of the G/A

### 2. Preparatory Survey

#### (1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of 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 country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme 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 a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever 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 organization of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

## (2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered 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 appropriateness of the Project.

# 3. Japan's Grant Aid Scheme

## (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 country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

## (2) 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 country to continue to work on the Project's

implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Attachment 1.

(6) "Proper Use"

The Government of the recipient country is required to maintain and use properly and effectively the facilities constructed and the equipment purchased under the Grant Aid, to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to JICA under

an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

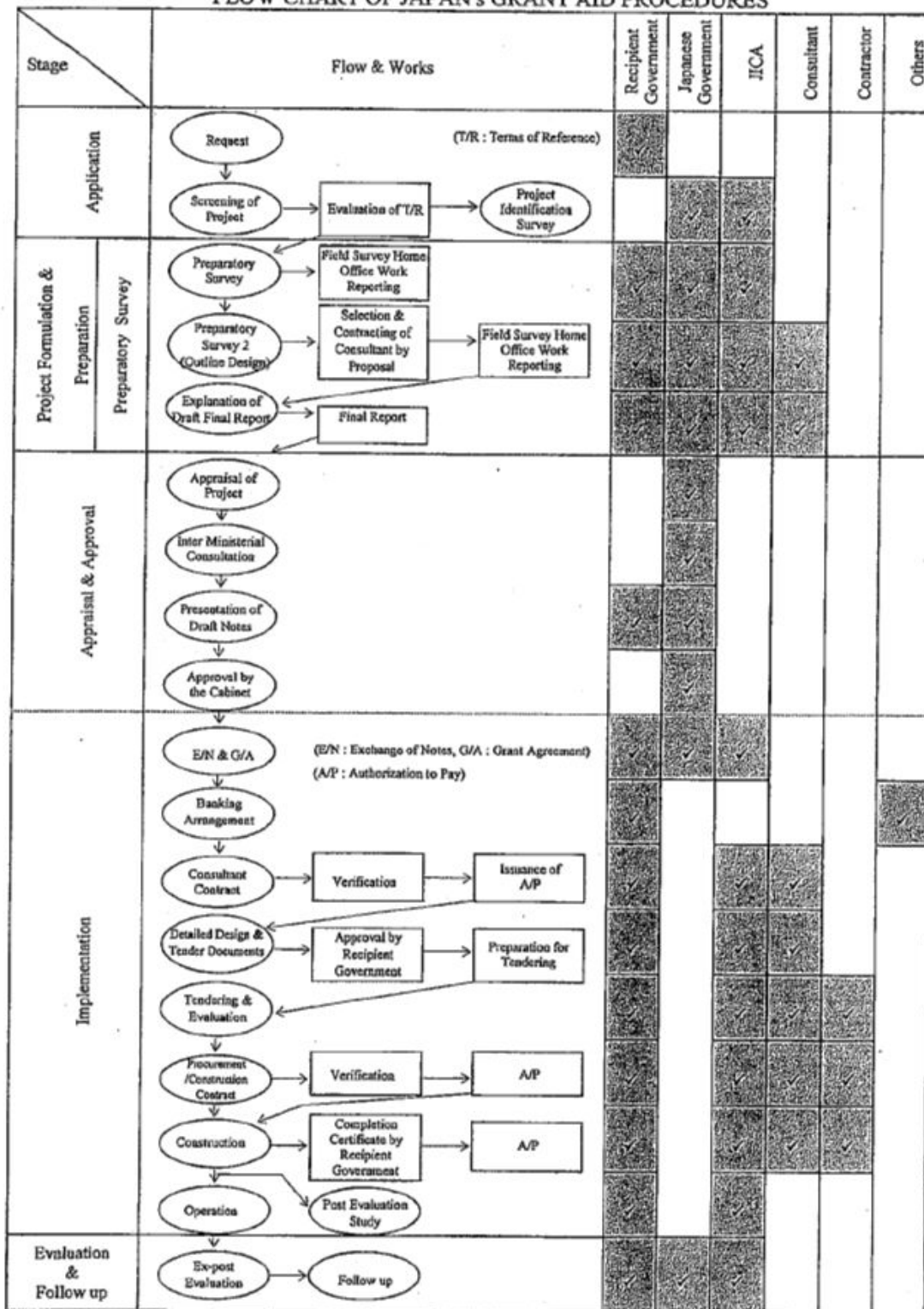
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

## FLOW CHART OF JAPAN'S GRANT AID PROCEDURES



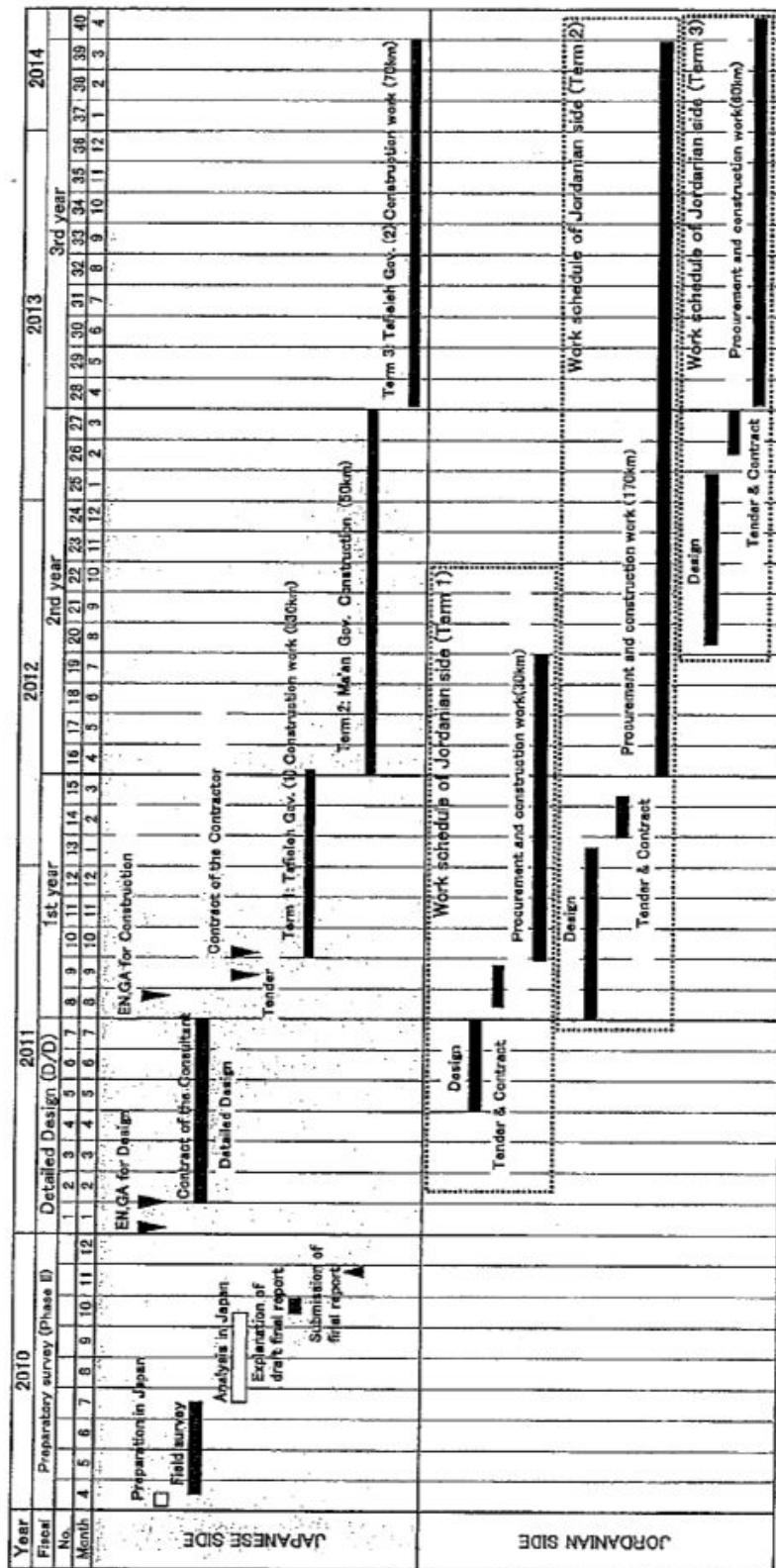
# Annex-6: Major Undertakings to be taken by Each Government

| No. | Items                                                                                                                                                                                                                                                        | To be covered by Grant Aid | To be covered by Recipient Side |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| 1   | To secure lots of land necessary for the implementation of the Project and to clear the sites                                                                                                                                                                |                            | ●                               |
| 2   | To construct the following facilities                                                                                                                                                                                                                        |                            |                                 |
|     | 1) The building                                                                                                                                                                                                                                              | ●                          |                                 |
|     | 2) The gates and fences in and around the site                                                                                                                                                                                                               |                            | ●                               |
|     | 3) The parking lot                                                                                                                                                                                                                                           | ●                          |                                 |
|     | 4) The road within the site                                                                                                                                                                                                                                  | ●                          |                                 |
|     | 5) The road outside the site                                                                                                                                                                                                                                 |                            | ●                               |
| 3   | To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites                                                                           |                            |                                 |
|     | 1) Electricity                                                                                                                                                                                                                                               |                            |                                 |
|     | a. The distributing power line to the site                                                                                                                                                                                                                   |                            | ●                               |
|     | b. The drop wiring and internal wiring within the site                                                                                                                                                                                                       | ●                          |                                 |
|     | c. The main circuit breaker and transformer                                                                                                                                                                                                                  | ●                          |                                 |
|     | 2) Water Supply                                                                                                                                                                                                                                              |                            |                                 |
|     | a. The city water distribution main to the site                                                                                                                                                                                                              |                            | ●                               |
|     | b. The supply system within the site (receiving and elevated tanks)                                                                                                                                                                                          | ●                          |                                 |
|     | 3) Drainage                                                                                                                                                                                                                                                  |                            |                                 |
|     | a. The city drainage main (for storm sewer and others to the site)                                                                                                                                                                                           |                            | ●                               |
|     | b. The drainage system (for toilet sewer, common waste, storm drainage and others) within the site                                                                                                                                                           | ●                          |                                 |
|     | 4) Gas Supply                                                                                                                                                                                                                                                |                            |                                 |
|     | a. The city gas main to the site                                                                                                                                                                                                                             |                            | ●                               |
|     | b. The gas supply system within the site                                                                                                                                                                                                                     | ●                          |                                 |
|     | 5) Telephone System                                                                                                                                                                                                                                          |                            |                                 |
|     | a. The telephone trunk line to the main distribution frame/panel (MDF) of the building                                                                                                                                                                       |                            | ●                               |
|     | b. The MDF and the extension after the frame/panel                                                                                                                                                                                                           | ●                          |                                 |
|     | 6) Furniture and Equipment                                                                                                                                                                                                                                   |                            |                                 |
|     | a. General furniture                                                                                                                                                                                                                                         |                            | ●                               |
|     | b. Project equipment                                                                                                                                                                                                                                         | ●                          |                                 |
| 4   | To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products                                                                                   |                            |                                 |
|     | 1) Marine (Air) transportation of the Products from Japan to the recipient country                                                                                                                                                                           | ●                          |                                 |
|     | 2) Tax exemption and custom clearance of the Products at the port of disembarkation                                                                                                                                                                          |                            | ●                               |
|     | 3) Internal transportation from the port of disembarkation to the project site                                                                                                                                                                               | ●                          |                                 |
| 5   | To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted                                                                |                            | ●                               |
| 6   | To accord Japanese nationals 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 recipient country and stay therein for the performance of their work |                            | ●                               |
| 7   | To ensure that the Facilities and the products be maintained and used properly and effectively for the implementation of the Project                                                                                                                         |                            | ●                               |
| 8   | To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project                                                                                                                                             |                            | ●                               |
| 9   | To bear the following commissions paid to the Japanese bank for banking services based upon the B/A                                                                                                                                                          |                            |                                 |
|     | 1) Advising commission of A/P                                                                                                                                                                                                                                |                            | ●                               |
|     | 2) Payment commission                                                                                                                                                                                                                                        |                            | ●                               |
| 10  | To give due environmental and social consideration in the implementation of the Project.                                                                                                                                                                     |                            | ●                               |

(B/A : Banking Arrangement, A/P : Authorization to pay)

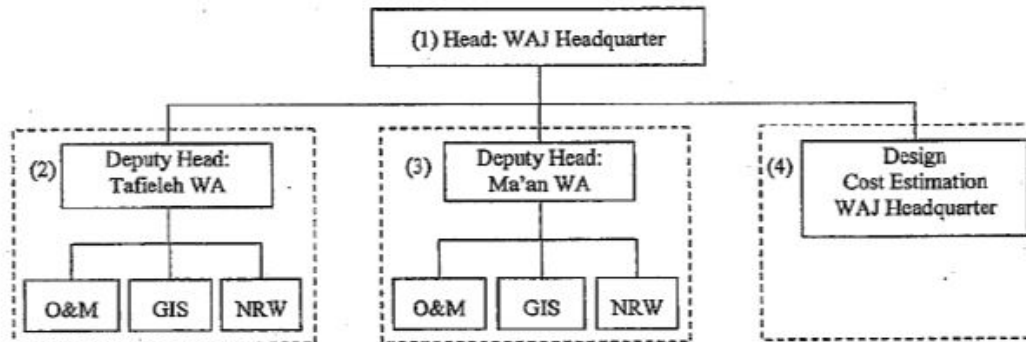


Annex-7: Tentative Schedule of Measures to be taken by Both Sides\*



\* The schedule is drafted under the condition that the Government of Japan will approve the implementation of the Project

# Annex-8: Structure of Counterpart Team



## (1) WAJ Headquarter

Head: WAJ Headquarter : Mr. Waleed Sukkar

## (2) Tafieleh Govenorate

Deputy Head: Tafieleh WA : Mr. Adnan Khaiat, Director of Tafieleh  
 O&M and NRW : Mr. Mustafa AL Zananeen, O&M and NRW Director  
 GIS : Mr. Muhamed Hawamdeh, Data Entry and GIS Expert  
 Mr. Muhamed Zanoon, Data Entry and GIS Expert

## (3) Ma'an Governorate

Deputy Head: Ma'an WA : Mr. Akram Al Zananeen, Director of Ma'an  
 O&M and NRW : Mr. Samer Maaita, O&M and NRW director  
 GIS : Ms. Abia Muhamed Elaian, GIS Expert

## (4) Design, Cost Estimation, WAJ Headquarter

Ms. Reham Bani-Han, Head of Study and Feasibility Study Division  
 Ms. Haneen Qublan, Engineer  
 Ms. Asma Wahadne, Engineer