

No.

Japan International Cooperation Agency (JICA)  
Ministry of Tourism and Antiquities  
Ministry of Planning  
The Hashemite Kingdom of Jordan

# Detailed Design for Tourism Sector Development Project in the Hashemite Kingdom of Jordan

## Final Report

**Volume ES**

## Executive Summary

**August 2000**

Pacific Consultants International  
Yamashita Sekkei Inc.

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<b>00-153</b>

**NOTE**

The following exchange rate was adopted through out this report

US\$ 1.00=JD 0.708 = Yen 106.08 (March 2000)

JD 1.00 = Yen 150

## PREFACE

In response to a request from the Government of the Hashemite Kingdom of Jordan, the Government of Japan decided to conduct the Detailed Design Study on Tourism Sector Development Projects in Jordan and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team headed by Mr. Takahide Fujihira of Pacific Consultants International and consist of Pacific Consultants and Yamashita Sekkei Inc. to Jordan, three times between March 1999 and July 2000.

The team held discussions with the officials concerned of the Government of Jordan and conducted field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the implementation of the Project and to the enhancement of friendly relations between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Jordan for their close cooperation extended to the Study Team.

August 2000



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Kimio Fujita

President

Japan International Cooperation Agency

August 2000

Mr. Kimio Fujita  
President  
Japan International Cooperation Agency  
Tokyo, Japan

## Letter of Transmittal

Dear Sir,

We are pleased to formally submit herewith the Final Report and tender documents of “The Detailed Design Study on Tourism Sector Development Project in the Hashemite Kingdom of Jordan.” Which is composed of 7 sub-projects.

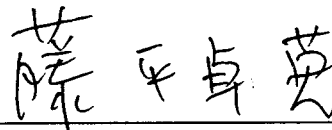
This report compiles the results of the Study including planning, design and tender documents (draft) of each sub-project.

During the study period we had been assisted by many people for the accomplishment of the Study, and we would like to express our sincere gratitude and appreciation to all those who extended their kind assistance and cooperation to the Study Team, in particular, the Ministry of Tourism and Antiquities who acted as the counterpart agency.

Also, we acknowledge the effective assistance by all the officials of your Agency and the Embassy of Japan in Jordan.

We hope that the report will be able to contribute to the implementation of Project and to the further development of Jordan through the completion of the Project.

Very truly yours,



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Takahide Fujihira  
Team Leader,  
The Study Team for  
the Detailed Design Study on  
Tourism Sector Development Project in  
the Hashemite Kingdom of Jordan

## OUTLINE

Study Period: March 1999– August 2000  
Counterpart Agency: Ministry of Tourism and Antiquities  
The Hashemite Kingdom of Jordan

### 1. Introduction

#### 1.1. Background of the Study

In 1996 the Government of Jordan (GOJ) requested to the Government of Japan to conduct a study to enhance the tourism promotion of Jordan. A Study Team formed by Japan International Cooperation Agency (JICA) was dispatched to Jordan and established a "Tourism Development Master Plan of the Hashemite Kingdom of Jordan". Following the Study GOJ intended to realize some priority projects recommended in the Master Plan. Upon request of GOJ another Study Team for the Special Assistance of Project Formation (SAPROF) by the Overseas Economic Cooperation Fund, Japan (OECF) was dispatched and conducted a Study named the "Tourism Sector Development Project in the Hashemite Kingdom of Jordan" (hereafter referred to as "the Project"). The Study gave top priority to the sub-projects which can promote tourism of the capital city of Amman.

According to the results of the studies, GOJ decided to implement the Project financially assisted by the Japan Bank for International Cooperation (JBIC) under its Yen Loan scheme. The detailed design and preparation of tender documents for the Project were conducted and completed by JICA on a grant basis from March 1999 to August 2000.

Through all studies above, the Ministry of Tourism and Antiquities (MOTA) acted as a counterpart agency for the Japanese Study Team in each stage.

In order to centrally and collectively manage the implementation of the Project, the Project Steering Committee has established a Project Management Unit (PMU), as an independent unit, acting as the Executing Agency of the Project.

#### Rationale of the Study

Recently, tourism has been contributing more and more foreign currency earnings to the national economy of Jordan.

The major tourism attractions of Jordan are Archaeological Tourism, represented by Petra and Jerash and Lakeside Resort Tourism in the Dead Sea coastal areas, as well as Religious Tourism, combined with the Baptism site. Gateway City Tourism is not well-known, when compared to Amman, which is familiar throughout the world.

The City of Amman is the largest and most important gateway to Jordan. In the itinerary of most international tourists, Amman is a stopover city for entry to and exit from the country. However, in view of its important location and status in Jordan, Amman can become a hub for tourism in the country if more effort is made towards tourism development and promotion, with the cooperation of tourism agencies world-wide.

Implementation of the sub-projects is expected to develop and promote, effectively and efficiently, Gateway City Tourism. According to the development of Amman tourism, international visitors will have a clear understanding of Jordan tourism before they set off to their destinations.

## 1.2. Objectives of the Study

The study objectives are summarised as follows:

- Review and reassessment of previous studies;
- Conduct supplemental site investigations and topographic surveys,
- Establishment of the definitive plan including preliminary design;
- Preparation of the detailed design;
- Preparation of the tender documents of each sub-project;
- Preparation of the study report to conclude the overall study; and
- Pursuing technology transfer to Jordanian counterpart personnel in the course of the Study.

## 1.3. Sub-projects, Scope and Responsible Agency

The Project composed of six (6) sub-projects and each subproject consists of various components as shown in Table 1.

**Table 1 Sub-project, scope and agencies responsible**

No.	Sub-projects	Component	Resp. Agency
1	Amman Downtown Tourist Zone (ADTZ)	1) Improvement of Tourist Trails	GAM
		2) Construction of new View Terraces	
		3) Improvement of Tourist Street:	
		4) Renovation of the existing Visitor Centre:	MOTA
		5) Improvement of Raghadan Bus Terminal	GAM
2	National Museum (NM)	1) Construction of new Museum building/Landscaping	GAM & MOTA
		2) Provision of Exhibition	
3	Dead Sea Parkway Development (DSPW)	1) Construction of new Road	MPWH
		2) Construction of new Parkway facility	
4	Dead Sea Panoramic Complex (DSPC)	1) Construction of new Complex	MOTA
		2) Landscaping	
5	Karak Tourism Development (KTD)	1) Renovation/improvement of Karak Castle Visitor Pathway	MOTA
		2) Renovation/expansion of Karak Castle Museum	
		3) Improvement of Tourist Street	KM/KDC
		4) New Construction of Castle Observation Points	
		5) Improvement of interior of Visitor Centre	MOTA
6	Historic Old Salt Development (HOSD)	1) Renovation of an old building into a Historic Old Salt Museum	SM
		2) Improvement of Model Tourist Trails	
		3) New construction of Panorama Lookouts	
		4) Improvement of Public Spaces	

Source: JICA Study Team

Based on the Detailed Design study, the improvement of Raghadan Bus Terminal component was separated from Amman Downtown Tourist Zone sub-project due to its scale and the character of the work-component, and those six (6) sub-projects were divided into seven (7) tender packages including Raghadan Bus Terminal Tender Package as shown in Table 2.

In this regard, the Final Report and Draft Tender Documents are prepared in seven separate volumes based on these seven tender packages, treating Raghadan Bus Terminal as one independent sub-project.

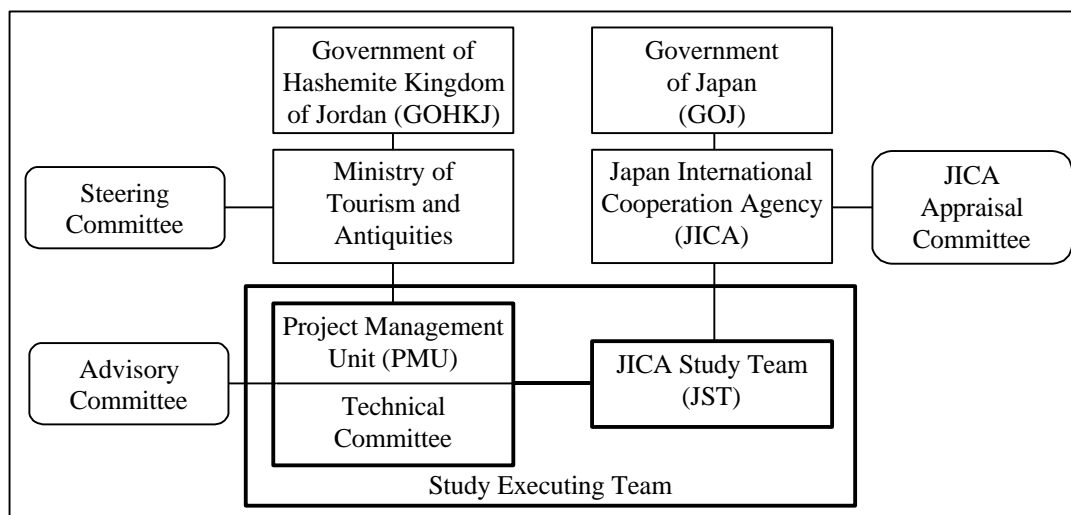
**Table 2 List of Revised Sub-projects**

Volume No. of Final Report	Tender Package No.	Sub-project Name
1	TP1	Amman Downtown Tourist Zone (ADTZ)
2	TP2	Raghadan Bus Terminal (RBT)
3	TP3	National Museum (NM)
4	TP4	Dead Sea Parkway Development (DSPW)
5	TP5	Dead Sea Panoramic Complex (DSPC)
6	TP6	Karak Tourism Development (KTD)
7	TP7	Historic Old Salt Development (HOSD)

Source: JICA Study Team

#### 1.4. Counterpart Agencies

As shown in Figure 1, the counterpart agency for this study is the Ministry of Tourism and Antiquities (MOTA). Under this agency, the Counterpart Team, represented by Project Management Unit (PMU) formed particularly for this Project, consists of staff from the responsible agencies concerned as shown in Table 1.

**Figure 1 Study Organisation**

Source: JICA Study Team

#### 1.5. Study Area and Location of each Sub-project

The location of all sub-projects including the Amman Tourism Region as well as Study Area is shown in Figure 1-1 after this Outline.

## 2. Outlines of each Sub-project

The outlines of each sub-project are summarised with the following contents:

- Rationale of the Sub-project
- Objectives of the Sub-Project
- Components
- Implementation Plan
- Operation and Maintenance
- Environmental Considerations
- Financial Considerations
- Further Actions to be taken

### 2.1. Amman Downtown Tourism Zone

Rationale of the Sub-project		Objectives of the Sub-Project	
<p>The Amman downtown is the most noteworthy area of Amman from the tourism development aspect. The downtown area has various prominent tourist assets are located such as Roman Theatre, Citadel, Museums, Old Mosques, complex of shops, and City Plaza at South East edge of the downtown.</p> <p>However, unfortunately, many tourists coming to Jordan due to inadequate promotion and lack of tourist amenities and infrastructure neglect the downtown. In order to increase the tourists' convenience, the sub-project is planned to implement.</p>		<ul style="list-style-type: none"> <li>- To formulate tourists circulation in the downtown zone</li> <li>- To enforce pedestrian linkage among the tourists assets in the zone</li> <li>- To improve tourism services along the tourism circulation as a model project</li> <li>- To serve for:               <ul style="list-style-type: none"> <li>Providing convenience to the tourists/pedestrians and make them stay longer in Amman</li> <li>Encouraging the existing and new commercial activities in Amman</li> </ul> </li> </ul>	
Components and Responsible Agencies			
Components	Type of work	Responsible Agency	Remarks
Tourist Street: 1,700 m long and 3-4 m wide	Improvement	GAM	<ul style="list-style-type: none"> <li>- Pavement of sidewalk in both ways 13,600 m<sup>2</sup> w/ stone tile, Erection of stone elevation, installation of balustrade and sign</li> <li>- Husayni Mosque Plaza: 2,800 m<sup>2</sup> pavement with stone and ceramic tiles and planting</li> </ul>
Tourist trails: Total 2.5 km long with 2-3m wide	Improvement	GAM	<ul style="list-style-type: none"> <li>- Pavement with stone tile, retaining wall, street furniture</li> </ul>
View Terraces	New development	GAM	<ul style="list-style-type: none"> <li>- 550 m<sup>2</sup> in total for 3 places at the hill side of Citadel</li> </ul>
Downtown Visitor Centre 46.5 m <sup>2</sup> floor area	Renovation	MOTA	<ul style="list-style-type: none"> <li>- Renovation of the existing information centre</li> <li>- Improvement of Plaza of 2,500 m<sup>2</sup> with stone pavement</li> <li>- Installation of kiosks of 11 nos.</li> </ul>
Implementation Plan		Time schedule	
Type of Procurement Method:	Local Bidding	2 months	Tender procedure
Tender Agency (Employer):	GAM	1 month	Concurrence of JBIC
Type of Contract:	Re-measurement	18 months	Construction
		1 months	As-built drawings
Operation and Maintenance			
Tourist Street, Tourist Trails and View Terrace as well as Plazas		Respective department of GAM will apply the existing maintenance system	
Visitor Centre and Information Kiosk		The staff of the existing information centre of MOTA will continuously manage these facilities	
Environmental Considerations			
<p>Based upon the on-site survey, it is confirmed that the residents and shops near the project sites may receive indirect or direct impacts at the stages of both construction and operation; such as Noise, Vibration, Waste, Traffic congestion, etc. The proper mitigation measures should be taken by the Contractor and operation body in construction and operation period respectively.</p>			
Financial Considerations		Further Actions to be taken	
All expenses for the maintenance of the tourist street, trails and view terraces are born by GAM and for operation costs of the Visitor centre is by MOTA.		<ul style="list-style-type: none"> <li>- Review of tender package</li> <li>- Making consensus with shop owners and residents about disturbance on their daily life during the construction.</li> </ul>	



## 2.2. Raghadan Bus Terminal

Rationale of the Sub-project		Objectives of the Sub-Project			
<p>The existing Raghadan Bus Terminal is act as a nodal point of the public transport of the downtown of Amman, but also play a role as a tourist amenity due to the concentration of shops and restaurant in and surrounding the terminal and with many of tourist assets near-by.</p> <p>The sub-project aims at the improvement of the existing bus terminal, but mainly at to develop a new tourist amenity in the downtown from the aspects of tourism promotion of the Amman city and the bus terminal acts as the main node with commercial facilities for the tourist street and tourist trails.</p>		<ul style="list-style-type: none"> <li>- To improve pedestrian linkage between Citadel, the Terminal and Roman Theatre</li> <li>- To provide a safe and comfortable access to the Terminal</li> <li>- To provide a new tourists spot</li> <li>- To utilise the existing bus terminal area in efficient and effective</li> <li>- To provide parking space of tourist bus for their convenience</li> </ul>			
Components					
Site Area		Building Floor: Tourist Deck		Building Floor: Corner towers	
Components	Area (m2)	Components	Area (m2)	Components	Area (m2)
<b>Bus Terminal:</b>	<b>23,437</b>	<b>Public open space</b>	<b>4,897</b>	<b>North west</b>	<b>487.49</b>
White Taxi	6,850	Deck walkway	3,014	Office space	274.40
Min-bus	9,623	Deck Plaza	1,883	Others	212.79
Large Bus	5,750	<b>Commercial space</b>	<b>2,607</b>	<b>North-east</b>	<b>600.91</b>
Tourist Bus	1,214	Shops	2,139	Office space	346.15
<b>Circulation</b>	<b>2,808</b>	Restaurants	355	Others	254.76
<b>Building Area</b>	<b>3,942</b>	Visitor Centre	113	<b>South-west</b>	<b>614.27</b>
Corner towers	3,690	<b>Other areas</b>	<b>726</b>	Office space	395.94
Other building	252	Mechanical room	141	Others	218.33
<b>Green area</b>	<b>903</b>	Toilet & circulation	585	<b>South-east</b>	<b>595.19</b>
<b>Others</b>	<b>3,358</b>			Office space	343.73
				Others	251.46
<b>Total</b>	<b>34,448</b>	<b>Total</b>	<b>8,230</b>	<b>Total</b>	<b>2,297.86</b>
Implementation Plan		Time schedule			
Type of Procurement Method:	0.5 months	Review by JBIC on PQ docu.	1.0 month	Negotiation	
Int'l Competitive Bidding	2.0 months	PQ Preparation submission	0.5 month	Concurrence by JBIC	
Tender Agency (Employer):	1.0 month	Evaluation of PQ	26 months	Construction	
GAM	0.5 month	Concurrence by JBIC on PQ	1.5 months	As-built drawings	
Type of Contract:	3.5 months	Tendering & Evaluation			
Re-measurement	1.0 month	Concurrence by JBIC			
Operation and Maintenance					
Bus Terminal			Transportation Department of GAM		
Tenant Management			GAM		
Open spaces of Tourist deck			GAM		
Visitor Centre			MOTA		
Environmental Considerations					
<p>The project site is located in the city centre where little natural environment can be seen. Therefore, adverse impact on the natural environmental will not expected by construction work. However, the site is very close commercial area, and nuisance and disturbance on socio-economic activities of restaurants and shops near the site might be expected. The residents, shop owners and guests will receive the impacts such as Noise, Vibration, Waste, Traffic congestion, etc. Proper mitigation measures should be taken by the Contractor and operation body in construction and operation period respectively.</p>					
Financial Considerations			Further Actions to be taken		
<p>Annual revenue from rental fee of commercial spaces and use fee of the vehicles registered calculated with the current fees is not reaching to the half of expenditure. The number of shops and vehicles could not be increased; therefore, the fee levels should be studied in order to keep the annual costs as well as return of the initial investment.</p>			<ul style="list-style-type: none"> <li>- Establishment of a new operation body</li> <li>- Determining new fee structure for the commercial space as well as vehicles, since the fee for vehicles is assumed to cheap</li> <li>- Contract with tenants</li> <li>- Keep lands for temporary terminal during construction and review the construction phases</li> <li>- Keep a piece of land for the overpass bridge opposite site of the Terminal</li> </ul>		

## 2.3. National Museum

Rationale of the Sub-project		Objectives of the Sub-Project			
<p>The development of the National Museum is desired by the Jordan nations not only from tourism promotion aspects but also the prestige of the country. The Museum, of course, contributes to the tourism promotion and gives another attractiveness to the Amman City as well as Jordan and educational role to the citizen, especially for school children.</p> <p>On the other side it is also expected to encourage the research and study of the history, culture, science, etc. of Jordan.</p>		<ul style="list-style-type: none"> <li>- To provide a prestigious facility of the country</li> <li>- To contribute the tourism promotion of Amman City</li> <li>- To provide a new tourist spot</li> <li>- To contribute encourage the Jordanian for the research and study of the history, culture, science of Jordan</li> <li>- To give an opportunity for the school children to learn their country systematically</li> </ul>			
Components					
Site Area		Building Floor Area			
Components	Area (m2)	Rooms	Area (m2)	Rooms	Area (m2)
		<b>Visitor services</b>	<b>1,150</b>	<b>Administration</b>	<b>260</b>
Building area	4,090	<b>Exhibition</b>	<b>3,200</b>	Office	90
Car parking area	1,400	Main Exhibition	2,800	Director and Deputy	60
Entrance Plaza	1,560	Temporary Gallery	400	Meeting	50
Outdoor Exhibition	700	<b>Collection Manage'nt</b>	<b>2,320</b>	Others	60
Other landscaping area	7,850	Storage	1,500	<b>Auxiliary Services</b>	<b>1,730</b>
		Others	820	Circulation	1,030
		<b>Research and Study</b>	<b>570</b>	Mechanical room	700
<b>Total</b>	<b>15,600</b>	Production	40	<b>Total</b>	<b>9,230</b>
Implementation Plan		Time schedule			
Type of Procurement Method:	0.5 months	Review by JBIC on PQ docu.	1.0 month	Negotiation	
Int'l Competitive Bidding	2.0 months	PQ Preparation submission	0.5 month	Concurrence by JBIC	
Tender Agency (Employer):	1.0 month	Evaluation of PQ	24 months	Construction	
MPWH	0.5 month	Concurrence by JBIC on PQ	1.5 months	As-built drawings	
Type of Contract:	3.5 months	Tendering & Evaluation			
Re-measurement	1.0 month	Concurrence by JBIC			
Operation and Maintenance					
Museum		An organisation newly established			
Environmental Considerations					
<p>The environmental examination concluded that possible negative impacts arising from the proposed project are limited to the human environment. It is specifically noted the flood risk for this sub-project due to the characteristic of the topographic conditions of the surrounding of the site. It was solved in design to level up the ground level 1.0 m high than the existing level.</p> <p>Beside above, general impacts such as Noise, Vibration, Waste, Traffic congestion, etc. will be received by the residents, shop owners and guests.</p> <p>Proper mitigation measures should be taken by the Contractor and operation body in construction and operation period respectively.</p>					
Financial Considerations		Further Actions to be taken			
<p>Annual revenue from admission fee and others will have small balance in black ink than the expenditure, but still hard to return the initial investment.</p> <p>Therefore efforts by all means should be paid to increase revenue as much as possible. It is considerable to sell the all floor/ spaces such as seminar room, lecture room, temporary exhibition gallery for any type of gathering including wedding ceremony/party, birthday party, etc. Even the entrance court and main exhibition gallery can be applied the business.</p>		<ul style="list-style-type: none"> <li>- Expedite to establish the new operation body</li> <li>- Review the exhibition lists and prepare program to collect the artefacts to the museum</li> <li>- To start negotiation with owners of the authentic material which would be presented in the Museum</li> <li>- Confirmation of location and type of pipes, which are installed along the huge culvert.</li> </ul>			

## 2.4. Dead Sea Parkway

<b>Rationale of the Sub-project</b>		<b>Objectives of the Sub-Project</b>		
<p>Since Ma'in Spa road and Dead Sea highway was disconnected, the visitors coming to Madaba and Ma'in Spa could not go to the Dead Sea coastal and they are going back the same way to Amman. The development of the Dead Sea Parkway can complete an one/two days tourism circuit of Amman-Madaba- Ma'in Spa-Dead Sea Panoramic Complex-Dead Sea coastal area-Amman.</p> <p>This tourism circuit will contribute the tourism promotion of the Amman tourism region both international and local tourists. The completion of the circuit may make tourist stay more in the region.</p>		<ul style="list-style-type: none"> <li>- To connect between the Dead Sea coastal area and Ma'in Spa road and formulate one/two days tourism circuit</li> <li>- To provide an access to the Dead Sea Panoramic Complex as well as the hotel planned to develop in future</li> <li>- To create business chances for the Madaba area to the Dead Sea coastal area</li> </ul>		
<b>Components</b>				
Road Section: 3.7 m x 2 ways		Road side facility:		
Length of Parkway:		At panoramic area of 2,500 m2 each with in/out roads		
Part-A: 5.5Km (Steep part)		Other associated items		
Part-B: 3.9Km (Parkway facility and Bridges)		Pipe and box culvert		
Part-C: 2.2Km (Improvement of Existing Road)		Slope protection and stabilisation		
Total 11.6 km		Ground rip rap protection		
Bridge: 9.6 m wide lane with 1.2 m wide side walk		RC retaining wall		
Wadi El Asal Bridge: 90 m long		Gravity wall		
Wadi Hammara Bridge: 120 m long		Gabions		
Intersection		Kerbstone		
At Route 65		Guard rails		
At Ma'in Spa Road		Street signs		
<b>Implementation Plan</b>		Time schedule		
Type of Procurement Method:	0.5 months	Review by JBIC on PQ docu.	1.0 month	Negotiation
Int'l Competitive Bidding	2.0 months	PQ Preparation submission	0.5 month	Concurrence by JBIC
Tender Agency (Employer):	1.0 month	Evaluation of PQ	24 months	Construction
MPWH	0.5 month	Concurrence by JBIC on PQ	1.5 months	As-built drawings
Type of Contract:	3.5 months	Tendering & Evaluation		
Re-measurement	1.0 month	Concurrence by JBIC		
<b>Operation and Maintenance</b>				
Parkway		MPWH		
<b>Environmental Considerations</b>				
<p>The location of the parkway is remote area and no residents exists but rather severe area in environment, especially archaeological and natural. EIA was conducted focussing the aspects of the archaeological and natural environment. It was confirmed many of archaeological ruins are found and the road alignment was determined avoiding such ruins.</p> <p>For the natural environment, wild life; vegetation and animals in the area are scarce in Jordan, therefore, they should be protected as much as possible. Beside these general impacts by the construction and operation such as waste pollution, waste water pollution could be raised as major problems. These are already proposed in the design stage to mitigate the impacts. However, the Contractor and operation body should take proper mitigation measures in construction and operation period respectively.</p>				
<b>Financial Considerations</b>		<b>Further Actions to be taken</b>		
All expenses for the maintenance of Parkway is managed by MPWH and budget will be born by MPWH also.		<ul style="list-style-type: none"> <li>- Prior to the commencement of the site work, soil investigation should be conducted especially in the Part-A area to review the design solution for the slope protection, etc.</li> <li>-</li> </ul>		

## 2.5. Dead Sea Panoramic Complex

Rationale of the Sub-project		Objectives of the Sub-Project		
The location of this facility is at the place within 15 minutes from the Dead Sea coastal tourism area and Ma'in Spa. This sub-project is planned not only to raise attractiveness of travel on the Dead Sea Parkway, but also an independent new tourism asset to enjoy the ambience of the location, panoramic view of the Dead Sea as well as beyond the Dead Sea, with museum which present all about Dead Sea from the aspects of Geology, History, Culture and Ecology. The restaurant located at the edge of the cliff is also one of the attractiveness of this facility, especially dinner in the evening time seeing the sunset.		<ul style="list-style-type: none"> <li>- To provide a new tourism asset in the Amman Tourism region</li> <li>- To make travel easy and convenient on the Parkway/the tourism circuit.</li> <li>- To be an educational facility, especially for school children</li> </ul>		
Components				
Site Area		Building Floor Area		
Components	Area (m2)	Rooms	Area (m2)	Remarks
Building area	2,506	<b>Main building</b>	<b>1,388</b>	
Car parking area	253	Exhibition Hall	714	
Central garden	675	Conference hall	191	138 seats
Entrance Plaza	452	Museum shop	28	
Court yard	106	Foyer	28	
Panoramic terraces	1,249	Ticketing	19	
Access road & temp	7,494	Administration spaces	146	Office, security, storage, etc.
Other landscaping area	47,289	Circulation, etc.	262	Corridor, toilet, etc.
		<b>Restaurant</b>	<b>626</b>	
		G fl	450	Additional 130 m2 for outdoor dining
		Base Fl.	176	Store, office, guard room, etc.
<b>Total</b>	<b>60,024</b>	<b>Mechanical Bldg</b>	<b>296</b>	Underneath the parking area
Implementation Plan		Time schedule		
Type of Procurement Method:		3.5 months	Tendering & Evaluation	
Local Competitive Bidding		1.0 month	Concurrence by JBIC	
Tender Agency (Employer):		1.0 month	Negotiation	
MPWH		0.5 month	Concurrence by JBIC	
Type of Contract:		18 months	Construction	
Re-measurement		1.5 months	As-built drawings	
Operation and Maintenance				
The total facility		MOTA the operation and management of the restaurant should be carried out by private sector.		
Environmental Considerations				
<p>The project site is close to the Dead Sea Parkway sub-project, which has been undertaken environmental impact assessment (EIA) in order to evaluate environmental impacts by the project and to propose mitigation measures focusing on ecology and archaeology.</p> <p>Based upon the result of the EIA as above and the discussion with the authorities concerned, for the natural environment, wild life; vegetation and animals in the area are scarce in Jordan, therefore, they should be protected as much as possible. Beside these general impacts by the construction and operation such as waste pollution, waste water pollution could be raised as major problems. These are already proposed in the design stage to mitigate the impacts. However, proper mitigation measures should be taken by the Contractor and operation body in construction and operation period respectively.</p>				
Financial Considerations		Further Actions to be taken		
Annual revenue from admission fee and others cannot cover the expenditure, and in very hard situation to return the initial investment. Therefore efforts by all means should be paid to increase revenue as much as possible. It is considerable to sell the any spaces such as conference room, exhibition gallery for any type of gathering including wedding ceremony/party, birthday party, etc.		<ul style="list-style-type: none"> <li>- Study to establish a new operation system than current museums operated by DOA</li> <li>- Find and contract with a proper tenant for restaurant operation</li> <li>- Clarify the demarcation on responsibility between contractor and DOA.</li> </ul>		

## 2.6. Karak Tourism Development

Rationale of the Sub-project		Objectives of the Sub-Project	
<p>The Karak City is 130 km (1 hour by car) distant from Amman to the southern direction. The distance can be said that the city is within the one-day trip area of Amman tourism region and the development is necessary to promote the Amman tourism region.</p> <p>The city, in old time, was prospered as the nodal point to connecting Kings highway (south-north trunk-road) and Jerusalem through the Dead Sea area. There is an Old Castle on the top of hill, which is the main tourism asset of the city and a part of the Castle is used as a Museum.</p>		<ul style="list-style-type: none"> <li>- To promote the tourism of Karak City in connection with tourism promotion of the Amman Tourism Region</li> <li>- To attract more tourists/visitors to the City through improvement of tourism ambience by the sub-project implementation.</li> <li>- To integrate development under implementation by World Bank and components in the sub-projects such as tourist street anode Castle presentation in order to increase the attractiveness of the Castle</li> </ul>	
Components and Responsible Agencies			
Components	Type of work	Responsible Agency	Remarks
Castle Presentation Castle Museum: 485 m2 (Existing: 348/Addition: 137 m2) Castle Pathway: 1.35 km length / 1.8-2.4m width	Improvement	MOTA	<ul style="list-style-type: none"> <li>- Removing soil and debris, Waterproofing</li> <li>- Improvement and provision of exhibition equipment and materials</li> <li>- Provision of safe measures</li> </ul>
Tourist Street: 8,900m <sup>2</sup>	Improvement	Karak Municipality	<ul style="list-style-type: none"> <li>- Pavement of carriage way and sidewalks both sides</li> <li>- Provision and improvement of lighting pole and fixture</li> </ul>
Visitor Centre The 1 <sup>st</sup> fl of the existing building	Renovation	MOTA	<ul style="list-style-type: none"> <li>- Renovation of the existing visitor centre of 240 m2</li> <li>- Provision of AV presentation equipment.</li> </ul>
Observation Points Site Area    Bldg Fl area Lower: 2,418 m2    97.56 m2 Upper: 3,672 m2    207.18 m2	New development	Karak Municipality	<p><u>Lower Observation Point</u></p> <ul style="list-style-type: none"> <li>- One storied building with cafeteria, Information kiosk, toilets, etc.</li> <li>- Parking area of 10 cars and 2 buses</li> </ul> <p><u>Upper Observation Point</u></p> <ul style="list-style-type: none"> <li>- 2 storied building with cafeteria, kitchen, kiosks, information booth, stores, etc.</li> <li>- Road side parking area of 12 cars and 1 bus</li> <li>- View theatre and View terrace are provided</li> </ul>
Implementation Plan		Time schedule	
Type of Procurement Method:	Local Bidding	2 months	Tender procedure
Tender Agency (Employer):	MPWH	1 month	Concurrence of JBIC
Type of Contract:	Re-measurement	16 months	Construction
		1 months	As-built drawings
Operation and Maintenance			
Tourist Street,		Respective department of Karak Municipality will apply the existing maintenance system	
Lower and Upper Observation Points		Karak Municipality and Karak Development Corporation	
Visitor Centre and Karak Castle Management		The staff of the existing information centre of MOTA will continuously manage these facilities	
Environmental Considerations			
<p>As the result of on-site survey it is confirmed that natural environment cannot be seen around the sites and the impacts caused by the projects are limited to the human environment, except tourist street. In addition, the most of negative impacts are minor because the project-scale of each component is small.</p> <p>The shop owners and residents may receive indirect or direct impacts at the stages of both construction and operation; such as Noise, Vibration, Waste, Traffic congestion, etc.</p> <p>The proper mitigation measures should be taken by the Contractor and operation body in construction and operation period respectively.</p>			
Financial Considerations		Further Actions to be taken	
All expenses for the maintenance of the tourist street are by Karak Municipality and the Visitor Centre is managed by MOTA. The Karak Castle is difficult to cover the expenditure by the revenue of admission fee, therefore, the maximum effort to be paid to get more revenue.		<ul style="list-style-type: none"> <li>- Demarcation of responsibility of the exhibition between Contractor and DOA</li> <li>- Making consensus with shop owners and residents about disturbance on their daily life during the construction along the tourist street.</li> </ul>	

## 2.7. Historic Old Salt Development

Rationale of the Sub-project		Objectives of the Sub-Project		
<p>The Salt City is located within 30 minutes time-distance from Amman by car and it is said that the Salt should be in the Amman Tourism Region and the development is necessary to promote the Amman tourism region.</p> <p>The feature of the city is compact and surrounded by hillsides, on which old type of buildings are cling up and connected with complicate small trails. The Salt municipality intend to promote tourism of the city introducing a concept of eco-museum, centred by the Abu Jaber Building with the tourist trails improving the existing small road network.</p>		<ul style="list-style-type: none"> <li>- To promote and attract more visitors to the city with establishing a eco-museum the city as a whole</li> <li>- To establish the eco-museum through the development of the components in the sub-projects</li> <li>-</li> </ul>		
Components and Responsible Agencies				
Components	Type of work	Responsible Agency	Remarks	
Historic Old Salt Museum and Visitor Centre Total floor area: 1,242 m <sup>2</sup>	Renovation	Salt Municipality for museum MOTA for Visitor Centre	<ul style="list-style-type: none"> <li>- Ground fl.: Visitor centre and private shops</li> <li>- 1<sup>st</sup>. fl.: Museum for history, Administration and Coffee shop and video room</li> <li>- 2<sup>nd</sup> fl.: Museum for culture of Salt</li> </ul>	
Tourist trails: Total 7,000 m/ 1.8-4.0 m wide	Improvement	Salt Municipality	<ul style="list-style-type: none"> <li>- Improvement of pavement of stair, and pedestrian trails; Hadadin stair, Jadaa trail, Qalaa trail, Rummant trail, Saltzaman trail, Skaiyya trail and Hammam trail</li> </ul>	
Lookouts 1,200 m <sup>2</sup> in total of 4 places	Improvement and New development	Salt Municipality	<ul style="list-style-type: none"> <li>- Renovation of new pavement, outdoor furniture, sign, planting for K. Al Slier lookout, Al Madrasha lookout, Al Jadda lookout, Al Qalaa lookout</li> <li>- Provision of retaining walls</li> </ul>	
Public space 3,850 m <sup>2</sup> in total of 4 places	Improvement and New development	Salt Municipality	<ul style="list-style-type: none"> <li>- Renovation of new pavement, outdoor furniture, sign, planting for Al Saha public space, Al Maydan public space, Al Baladyia public space, Al Hammam public space</li> </ul>	
Implementation Plan		Time schedule		
Type of Procurement Method:	3.5 months	Tendering & Evaluation		
Local Competitive Bidding	1.0 month	Concurrence by JBIC		
Tender Agency (Employer):	1.0 month	Negotiation		
MPWH	0.5 month	Concurrence by JBIC		
Type of Contract:	18 months	Construction		
Re-measurement	1.5 months	As-built drawings		
Operation and Maintenance				
Tourist trails, lookouts and public spaces		Salt Municipality will apply the existing maintenance system		
Historic Old Salt Museum		Salt Municipality establishing a new organization		
Visitor Centre		Continuous management by MOTA with existing staff		
Environmental Considerations				
<p>According to the environmental examination based upon on-site survey, negative impacts on the natural environmental are not expected by the project implementation. The possible impacts are considered to be restricted to the human environment such as human health and socio-economic activities.</p> <p>The shop owners and residents along the tourist trails and public spaces may receive indirect or direct impacts, but not so big at the stages of both construction and operation; such as Noise, Vibration, Waste, Traffic congestion, etc.</p> <p>The Contractor and operation body should take the proper mitigation measures in construction and operation period respectively.</p>				
Financial Considerations		Further Actions to be taken		
<p>All expenses for the operation and maintenance of the components included in the sub-projects by the Salt Municipality and MOTA respectively. However, a provisional calculation conducted on the Museum resulted that the revenue cannot cover the annual expenditure. Therefore, the efforts by all concerns are to be made to increase the number of visitors by all means.</p>		<ul style="list-style-type: none"> <li>- Find solution of the parking problems of the City</li> <li>- Demarcation of responsibility of the exhibition between Contractor and DOA</li> <li>- Making consensus with shop owners and residents about disturbance on their daily life during the construction along the tourist street.</li> </ul>		

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## Abbreviations

ADTZ	:	Amman Downtown Tourist Zone
B/D	:	Basic Design
CDD	:	Civil Defence Directorate
CERM	:	Cultural Environment Resources Management
D/D	:	Detailed Design
DOA	:	Department of Antiquities (of MOTA)
DOE	:	Department of Environment (of MMRAE)
DSPC	:	Dead Sea Panoramic Complex
DSPW	:	Dead Sea Parkway
EIA	:	Environmental Impact Assessment
GAM	:	Greater Amman Municipality
GCEP	:	General Corporation for Environmental Protection
GDP	:	Gross Domestic Product
GEC	:	General Environment Corporation
GOJ	:	Government of Japan
HOSD	:	Historic Old Salt Development
ICB	:	International Competitive Bidding
IEE	:	Initial Environmental Examination
I/P	:	Implementation Program
JAM	:	Jordan Archaeological Museum
JBIC	:	Japan Bank for International Cooperation
JD	:	Jordan Dinar(s)
JICA	:	Japan International Cooperation Agency
JST	:	JICA Study Team
JVA	:	Jordan Valley Authority
JY	:	Japanese Yen
KDC	:	Karak Development Corporation
KM	:	Karak Municipality
KTD	:	Karak Tourism Development
LB	:	Local Bidding
LCB	:	Local Competitive Bidding
MMRAE	:	Ministry of Municipal, Rural Affairs and Environment
MOP	:	Ministry of Planning
MOT	:	Ministry of Transport
MOTA	:	Ministry of Tourism and Antiquities
MP	:	Master Plan
MPWH	:	Ministry of Public Works and Housing
NGO	:	Non-Governmental Organisation
NIC	:	National Information Center
NM	:	National Museum
OECF	:	Overseas Economic Cooperation Fund of Japan
PMU	:	Project Management Unit
PSC	:	Project Steering Committee
RBT	:	Raghadan Bus Terminal
RSCN	:	Royal Society for the Conservation of Nature
SAPROF	:	Special Assistance for Project Formation
SDC	:	Salt Development Corporation
SM	:	Salt Municipality
S/V	:	Supervision (of Works)
TCC	:	Telecommunications Corporation
TD	:	Tender Documents
TOR	:	Terms of Reference
T/P	:	Tender Package
UNESCO	:	United Nations Educational Scientific and Cultural Organization
USAID	:	United States Agency for International Development
WB	:	World Bank

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- **Raghadan Bus Terminal**
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Mr. Hisao Matsumura	Civil Design/Construction and Cost Planning (2)
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Mr. Akira Ogiwara	Environmental Impact Assessment
Mr. Youichi Kumakura	Exhibition Planning
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Mr. Shoji Kumita	Geotecnic Engineer
Mr. Hirotsugu Kato	Administration Coordinator

Volume numbers of submission reports and documents for the Project are summarized and classified in the following color chart

Volume Number of Submission Reports and Documents	VOLUME						
	ADTZ	RBT	NM	DSPW	DSPC	KTD	HOSD
SUB-PROJECT VOLUME NUMBER	1	2	3	4	5	6	7
FINAL REPORT VOLUME NUMBER							
EXECUTIVE SUMMARY	ES / ES(Jpn)						
MAIN REPORT	1MR	2MR	3MR	4MR	5MR	6MR	7MR
SUPPORTING REPORT VOLUME NUMBER	1SR			4SR		6SR	7SR
DESIGN CALCULATION SHEETS		2SR	3SR-(1)		5SR-(1)		
TAKE OFF SHEETS			3SR-(2)		5SR-(2)		
EXHIBITION LIST							
ENVIRONMENTAL REPORT							
SOIL INVESTIGATION REPORT							
TRAFFIC SURVEY REPORT							
SURVEY ON THE EXISTING BUILDING CONDITIONS						6SR-EBS	7SR-EBS

TENDER DOCUMENTS VOLUME NUMBER								
PRE-QUALIFICATION DOCUMENT		2PQ	3PQ	4PQ				
TENDER DOCUMENT								
VOLUME I	TENDERING AND CONTRACTING REQUIREMENT	1IT	2IT	3IT	4IT	5IT	6IT	7IT
VOLUME II	SPECIFICATIONS				4SP			
	• General & Technical Spec. (Division 1-14, Arch. & Stru.)	1SP-AS	2SP-AS	3SP-AS		5SP-AS	6SP-AS	7SP-TR (遊歩道)
	• General & Technical Spec. (Division 15-16, M & E)	1SP-ME	2SP-ME	3SP-ME		5SP-ME	6SP-ME	7SP-MU (歴史資料)
VOLUME III	BILL OF QUANTITIES without Priced	1BQ	2BQ	3BQ	4BQ	5BQ	6BQ	7BQ
VOLUME IV	DRAWINGS	1DR			4DR			
	• Arch. & Struc. or Street, Lookout and/or Observation		2DR-AS	3DR-AS		5DR-AS	6DR-TS	7DR-TR
	• Mech. & Elec. or Museum		2DR-ME	3DR-ME		5DR-ME	6DR-CM	7DR-MU
VOLUME V	CONDITIONS OF CONTRACT	1CC	2CC	3CC	4CC	5CC	6CC	7CC
	• PART-1: General Conditions of Contract							
	• PART-2: Special Conditions of Contract							



## **Chapter 1 Introduction**

### **1.1. Background of the Study/Project**

In 1996 the Government of Jordan (GOHKJ) requested to the Government of Japan (GOJ) to conduct a study to enhance the tourism promotion of Jordan. GOJ dispatched a Study Team by Japan International Cooperation Agency (JICA). The Study Team conducted a study to establish a "Tourism Development Master Plan of the Hashemite Kingdom of Jordan". Following the Study GOHKJ intended to realize some priority projects recommended in the Master Plan. GOHKJ requested GOJ to dispatch another Study Team for the Special Assistance of Project Formation by Overseas Economic Cooperation Fund, Japan (OEFC). The study team conducted a Study named the "Tourism Sector Development Project in the Hashemite Kingdom of Jordan" (hereafter referred to as "the Project"). The Study gave the top priority to certain sub-projects, which can promote tourism of the Capital City of Amman.

According to the results of the studies, GOJ decided to implement the Project financially assisted by Japan Bank for International Cooperation (JBIC) under its Yen Loan. The detailed design and preparation of tender documents for the Project were conducted and completed by JICA on a grant basis from March 1999 to July 2000.

Through all the above studies, the Ministry of Tourism and Antiquities (MOTA) acted as a counter agency for the Japanese Study Team in each stage, and MOTA will act as the Executing Agency in the implementation of the Project.

Recently, the contribution of tourism to the national economy of Jordan has been foreign currency earnings.

The major tourism attractions of Jordan are Archaeological Tourism, represented by Petra and Jerash and Lakeside Resort Tourism in the Dead Sea coastal areas, as well as Religious Tourism combined with the Baptism site. The Gateway City Tourism, instead of the well-known name of Amman world wide, is rather behind in the ranking compared with other attractions.

The City of Amman is the largest and most important gateway to Jordan. In the itinerary of most international tourists, Amman is a stopover city for entry to and exit from the country. However, the City should become a hub in accordance with its important location, with more effort towards tourism development and promotion under the cooperation of tourism agents in the world, in order to boost the commercialisation of its assets.

Under the circumstances of the tourism situation of Amman, the Government decided to implement the projects as shown in Table 1.1 according to the recommendations of the studies. They are predicted to develop and promote, effectively and efficiently, the Gateway City Tourism. According to the development of Amman tourism, international visitors will be able to have a clear understanding of Jordan tourism before they leave for their destination areas.

### **1.2. Objectives of the Study**

The study objectives are summarised as follows:

- Review and reassessment of previous studies of the Project such as JICA Master Plan Report (February 1996) and SAPROF Report (March 1997);
- Conduct supplemental site investigations and topographic surveys,
- Establishment of the definitive plan including preliminary design and provisional cost estimates in consideration of the amount of construction cost allocated in JBIC loan

agreed with HKJ;

- Preparation of the detailed design of the facilities to be constructed under the Project including construction plan and cost estimates in consideration of the amount of construction cost allocated in JBIC loan agreed with HKJ;
- Preparation of the tender documents of the Tourism Sector Development Project;
- Preparation of the study report to conclude the overall study; and
- Pursuing technology transfer to Jordanian counterpart personnel in the course of the Study.

### 1.3. Sub-projects, Scope and Responsible Agency

The Project composed of six (6) sub-projects and each subproject consists of various components as shown in Table 1.1.

The location of each sub-project is shown in Figure1.1.

**Table 1.1 Sub-project, scope and agencies responsible**

No.	Sub-projects	Component	Resp. Agency
1	Amman Downtown Tourist Zone (ADTZ)	1) Improvement of Tourist Trails	GAM
		2) Construction of new View Terraces	
		3) Improvement of Tourist Street:	
		4) Renovation of the existing Visitor Centre:	MOTA
		5) Improvement of Raghadan Bus Terminal	GAM
2	National Museum (NM)	1) Construction of new Museum building/Landscaping	GAM & MOTA
		2) Provision of Exhibition	
3	Dead Sea Parkway Development (DSPW)	1) Construction of new Road	MPWH
		2) Construction of new Parkway facility	
4	Dead Sea Panoramic Complex (DSPC)	1) Construction of new Complex	MOTA
		2) Landscaping	
5	Karak Tourism Development (KTD)	1) Renovation/improvement of Karak Castle Visitor Pathway	MOTA
		2) Renovation/expansion of Karak Castle Museum	
		3) Improvement of Tourist Street	KM/KDC
		4) New Construction of Castle Observation Points	
		5) Improvement of interior of Visitor Centre	MOTA
6	Historic Old Salt Development (HOSD)	1) Renovation of an old building into a Historic Old Salt Museum	SM
		2) Improvement of Model Tourist Trails	
		3) New construction of Panorama Lookouts	
		4) Improvement of Public Spaces	

Source: JICA Study Team

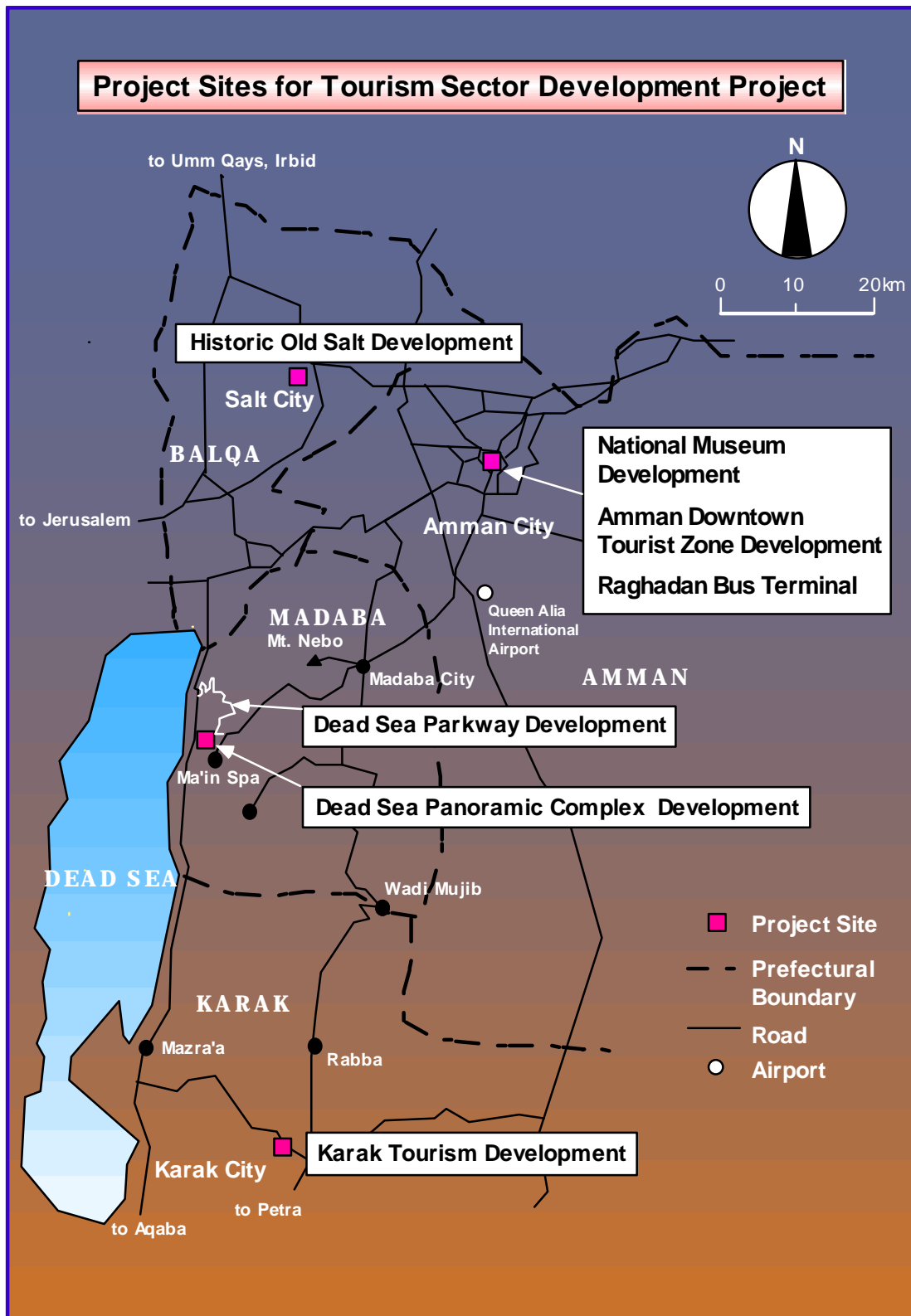
Based on the Detailed Design study, the improvement of Raghadan Bus Terminal component was separated from Amman Downtown Tourist Zone sub-project due to its scale and the character of the work-component, and those six (6) sub-projects were divided into seven (7) tender packages including Raghadan Bus Terminal Tender Package as shown in Table 1.2.

In this regard, the Final Report and Draft Tender Documents are prepared in seven separate volumes based on these seven tender packages, treating Raghadan Bus Terminal as one independent sub-project.

**Table 1.2 List of Revised Sub-projects**

Volume No. of Final Report	Tender Package No.	Sub-project Name
1	TP1	Amman Downtown Tourist Zone (ADTZ)
2	TP2	Raghadan Bus Terminal (RBT)
3	TP3	National Museum (NM)
4	TP4	Dead Sea Parkway Development (DSPW)
5	TP5	Dead Sea Panoramic Complex (DSPC)
6	TP6	Karak Tourism Development (KTD)
7	TP7	Historic Old Salt Development (HOSD)

Figure 1.1 Study Area and Location of Sub-project



Source: JICA Study Team

## **Chapter 2 Design Premises**

Below are the basic premises for the development of the design.

### **2.1. Scope of Work confirmed**

The development of preliminary and final design is made based on the components included in each sub-project. Table 2.1(1) and 2.1(2) show the confirmed scope of works and respective responsible agency(ies) for each sub-project. The scope of works of each sub-project has been modified from the original through the discussions and co-ordination between the agency(ies) and the JICA Study Team.

### **2.2. Physical Survey conducted**

The physical surveys for the detailed design of the Project were conducted by the JICA Study Team as shown in Table 2.2.

### **2.3. Standard and Codes**

The technical standards and codes applied to the sub-projects are listed below.

#### **(1) Building and structure**

- National Building Codes of Jordan
- Jordanian Standard of Industry
- National Fire Protection Code of Jordan
- British Standard Code of Practice for the Structural Use of Concrete (BS 8110) shall be employed for reinforced concrete structural analysis and design
- British Standard Code of Practice for the Structural Use of Steelwork in Buildings (BS 5950) shall be employed for structural steel analysis and design
- Jordan Code for Loads and Forces shall be employed for the definition of Dead, Live, Wind and Seismic Loading
- The British Standard Code of Practice for Design of Concrete Structures for Retaining Aqueous Liquids (BS5337) shall be employed for the design of water-containing structures
- The British Standard Code of Practice for Foundations (BS 8004) shall be employed for the design of Foundations and Substructures
- The British Standard Specification for Bending Dimensions and Scheduling of Reinforcement for Concrete (BS4466) shall be employed for reinforcement details

#### **(2) Mechanical Design**

- BSS: British Standard Specifications
- BSI: British Standards Institute
- CP: Code of Practice
- ASHRAE: American Society of Heating, Refrigeration and Air Conditioning Engineers
- NFPA: National Fire Protection Association

- General and specific requirements of the local water and drainage authority, local public health officer, and the regulations of the local Civil Defence Department

(3) Electrical Design

- National Electric Code (NEC)
- British Standards (BS)
- Local Jordanian Codes and Standards
- National Fire Protection Association (NFPA)
- Local Companies (Power & Telephone) Requirements and Safety Regulations

(4) Road and Bridges

- AASHTO Specification for Highways and Bridges
- Jordanian Codes of Practice (MPWH)
- Specification for Highway and Bridge Construction (MPWH-1991)
- Japanese Standards and Codes; Ministry of Construction

Table 2.1(1) List of Scope of Works by Sub-project

No.	Sub-projects	Components
1	Amman Downtown Tourist Zone	Tourist Street
		Tourist Trails
		View Terraces
		Tourist Visitor Centre
2	Raghadan Bus Terminal	Parking Area
		Terminal Building
3	National Museum	Building
		Landscaping
		Exhibition
4	Dead Sea Parkway	Road
		Additional Connection road
		Parkway Facility
5	Dead Sea Panoramic Complex	Building
		Landscaping
		Exhibition
6	Karak Tourism Development	Karak Castle Museum including exhibition
		Visitor Pathway
		Tourist Street
		Castle observation points
		Visitor Centre
7	Historic Old Salt Development	New Salt Museum including exhibition
		Visitor Centre
		Tourist Trails
		Public Spaces and Panorama Lookouts

Source: JICA Study Team

The comparison of scope of works between the SAPROF Study and the JICA Detailed Design is shown in Table 2.1 (2).

Table 2.1(2) List of Scope of Works compared with the SAPROF Study

Sub-projects	Work-components	SAPROF Study	JICA D/D Study	
(1) Amman Downtown Tourist Zone	1) Tourist Trails	1) Improvement of the 5 existing pedestrian trails connecting the citadel and the downtown area.	1) Improvement of the existing stairways and streets connecting the citadel, the Raghadan Bus Terminal, the Roman Theatre and the downtown area.	
		2) For all five accesses <ul style="list-style-type: none"> <li>- providing tourist signs at appropriate intervals</li> <li>- providing direction signs for vehicles at major junctions</li> </ul>	2) For all streets and stairs <ul style="list-style-type: none"> <li>- providing tourist signs at appropriate locations</li> <li>- improvement of stairways, pavement and rainwater drainage</li> <li>- street furniture and planting where applicable</li> <li>- safety measures where needed</li> <li>- introduction of wooden pergolas</li> </ul>	
		3) For "lookout access" and East access <ul style="list-style-type: none"> <li>- improving physical structure of the trails including stairways, pavement, water supply piping, drainage, lighting, street furniture landscaping.</li> </ul>		
		4) 3 view terraces with interpretation of the panorama view	3) 3 view terraces with interpretation of the panorama view <ul style="list-style-type: none"> <li>- building of arch and terrace for seating</li> </ul>	
		5) 2 pedestrian overpass bridges crossing Al Hashimi Street	4) An overpass bridge at Raghadan bus terminal across Al Hashimi Street (this work-component is shifted to the Raghadan bus terminal work-component) and another overpass bridge at the Old Municipality Building was cancelled	
	2) Tourist Street	1) Improvement of Al Hashimi and King Talal Streets including sidewalks and vehicle lanes <ul style="list-style-type: none"> <li>- Improving physical structure of the street pavement, drainage, underground electric wiring, lighting and landscaping</li> <li>- Providing attractive street furniture (benches, bus stops, rubbish bins, flower pots) signs and art works</li> </ul>	1) Improving of pedestrian paths on both sides of Al Hashimi and King Talal Streets <ul style="list-style-type: none"> <li>- Stone pavement for pedestrian paths</li> <li>- Street furniture includes benches, signs and safety measures, planting where it is applicable</li> <li>- improvement of Al Husaini Mosque plaza (2,750 m<sup>2</sup>)</li> </ul>	
	3) Visitor Centre	1) Renovation of the interior of the Visitor Centre in internal		1) Renovation of the interior of the Visitor Centre <ul style="list-style-type: none"> <li>- provision of tourist promotion equipment and counter</li> <li>- Improvement of floor finish</li> </ul>
				2) Improvement of the Old Municipality Plaza and planting garden (Additional) <ul style="list-style-type: none"> <li>- improvement of pavement of the plaza</li> <li>- provision of outdoor furniture</li> </ul>
				3) Provision of kiosks in the plaza (Additional) <ul style="list-style-type: none"> <li>- 10 general kiosks</li> <li>- 1 information kiosk</li> </ul>

Sub-projects	Work-components	SAPROF Study	JICA D/D Study
(2) Raghadan Bus Terminal	1) Raghadan Bus Terminal	1) Re-pavement	1) Re-pavement and re-layout of platform
		2) Tourist deck construction	2) Tourist deck construction
		3) Building - administration, - shops, etc.	3) Building - administration - police station - civil defence station - shops - relocation of the existing mosque (by others)
		4) Tourist facilities - ticket centre - transport information - landscaping	4) Tourist facilities - visitor centre with ticket centre, travel guide office - transport information - landscaping
		5) Additional overpass bridges - at Raghadan bus terminal across Al Hashimi Street	5) Additional overpass bridges - at Raghadan bus terminal across Al Hashimi Street - at Raghadan bus terminal connecting Hashimiyah Plaza
(3) National Museum	1) Building	1) Museum building 2) Structural study	1) Museum building and annex building 2) Structural study
	2) Landscape	1) Landscaping 2) Landscaping for parking area	1) Landscaping 2) Landscaping for parking area
	3) Equipment/Furniture	1) Museum Equipment and Furniture	1) Exhibition Materials and Equipment 2) General Furniture
(4) Dead Sea Parkway	1) Road Additional Connection Road	1) For length of Parkway The length of Parkway was estimated as approximately 13km in the JICA Master Plan Report.	1) For length of Parkway Due to the results of the preliminary design, the length of the recommended alignment of the Parkway was estimated and reduced to 9.1km based on the topographic survey.
		2) For end alignment of Parkway According to the OECF SAPROF Report, the end alignment of the Parkway to the Dead Sea Panoramic Complex site was not clearly identified.	2) For end alignment of Parkway According to the discussion with MOTA and MPWH, the end alignment of the Parkway was decided considering the exact location of the Dead Sea Panoramic Complex site.
		3) For detailed design of Parkway - To execute the detailed design of the Parkway with two (3.6m) lanes with 3.0m shoulder on either side.	3) no change
		4) Additional 2.25 km of connecting road from Madaba-Ma'in Section	
	2) Parkway Facility	1) For detailed design of Tourist Road Facilities - To execute the detailed design of at least one parking area with shelters, trash bins, etc. along the Parkway. - To execute the detailed design of the necessary signs for vehicles and tourists.	1) For detailed design of Tourist Road Facilities - To execute the detailed design of the Tourist Road Facilities (Asphalt parking /1000m <sup>2</sup> , Landscaping/500m <sup>2</sup> ) - To execute the detailed design of the signing for parking area and for vehicles /tourists.



Sub-projects	Work-components	SAPROF Study	JICA D/D Study
(5) Dead Sea Panoramic Complex	1) Dead Sea Museum	1) Dead Sea Museum - Museum building and restaurant - Museum equipment and furniture	1) Dead Sea Museum - Museum/Main building - Museum exhibition - Conference hall 2) Restaurant
	2) Panoramic Terrace, Landscape and Other Facilities	1) Panoramic Terrace, Landscape and Other Facilities - Panoramic Terrace with asphalt pavement - Landscaping area, car parking and signage.	1) Outdoor exhibition areas, Panoramic Terrace, Landscaping, Access road, Parking spaces and Other Facilities
(6) Karak Tourism Development	1) Karak Castle Presentation	1) Improvement of the existing Karak museum with appropriate museum equipment, furniture and materials.	1) Improvements of the existing Karak museum (352 m <sup>2</sup> ) with appropriate museum equipment, furniture and materials. - Adding an exhibition space of 136 m <sup>2</sup> - Improvement of the storm water drainage and entry area of the existing museum - Providing a connection between the existing museum and the additional exhibition space - Improvement of the roof drainage of the additional exhibition space
		2) Improvement of the pathway including pavement, provision of interpretation boards, sign posting, and safety measures (lighting, hand railing, steps, etc.).	2) Improvement of the pathway including pavement, provision of direction signs, safety measures (lighting, handrails, steps, etc.) and additional improvement of 2,000 m <sup>2</sup> of upper areas.
	2) Tourist Street	1) Upgrading of the streets - Improvement of pavement, drainage, underground electric wiring, lighting and landscaping - Street furniture (benches, bus stop, rubbish bins, flower pots), signs and art works	1) Improvement of the streets - Improvement of stone pavement, sub-surface utilities, lighting and landscaping - Street furniture (benches, bus stop, rubbish bins, flower pots), signs and art works
	3) Castle Observation Points	1) 2 observation points - Interpretation board, benches, shelter, rubbish bins, signage	1) 2 observation points - Soft and hard landscaping including shelter and signage
	4) Visitor Centre	1) Full restoration of the Old Municipality Building 2) Equipment and material at the 1ST FL of Old Municipality Building	1) Improvement of interior and service facilities of the 1ST FL of Old Municipality Building 2) Improvement of the exterior of the Building 3) Equipment of the Visitor Centre

Sub-projects	Work-components	SAPROF Study	JICA D/D Study
(7) Historic Old Salt Development	1) Historic Old Salt Museum	1) Restoration of the building and renovation into the historic Old Salt Museum with appropriate museum equipment, furniture and visitor facilities	1) Renovation of the existing old building, "the Abu Jaber Building," into a museum. - Basically, the structure of the building shall not be altered in order to maintain the uniqueness of the original architectural features and the structural stability of the existing building. - The façade of the building shall not be altered, except restoration and cleaning of the finishing, windows, walls, roofs and verandas which have been damaged or wrongly altered from their original state.
		2) Procurement of necessary exhibition equipment and creation of the display materials (panels and models, etc.)	2) Procurement of necessary exhibition equipment and creation of the display materials (panels and models, etc.)
		3) Providing Visitor Centre (approx. 200 m <sup>2</sup> ) with appropriate information and material of town visit in the same restored building as new Museum - appropriate tourism promotion equipment and material will be provided	3) Visitor Centre will be situated inside the proposed museum - interior design and exhibition plan - promotion equipment plan for tourists
	2) Tourist Trail and Public Space	1) For all Tourist Trails including Model Tourist Trails - Providing interpretation board for major buildings of interest - Providing attractive signs at major corners and adequate intervals	1) For all Tourist Trails including Model Tourist Trails - Providing interpretation board for major buildings of interest - Providing attractive signs at major corners and adequate intervals
		2) For all Model Tourist Trails - Improving physical structure of trails	2)-1 Stone pavement for Model Tourist Trails 2)-2 Asphalt pavement for Model Tourist Trails - Improving physical structure of trails where applicable - Improvement of the existing facades with paint and plastering where applicable - Introduction of Wooden Pergolas and benches.
		3) Providing 5 panorama lookouts with shelter, benches, panorama map and rubbish bins	3) Providing 4 panorama lookouts with shelter, benches, panorama map, planting and rubbish bins
		4) For selected 4 Tourist Nodes - Improving physical structure (pavement, landscaping, drainage, parking, lighting, etc) - Providing Town Guide Map board, street furniture and art works	4) For selected 4 Tourist Nodes - Improving physical structure (pavement, landscaping, drainage, water supply piping, underground electric wiring, parking, lighting, etc) - Providing Town Guide Map board, street furniture and art works

Source: JICA Study Team

Table 2.2 Physical Surveys conducted

Sub-project	Component	Topographic Survey	Soil Investigation	Existing Building Survey	EIA	Traffic Survey
(1) Amman Downtown Tourist Zone	1) Tourist street	X				
	2) Tourist Trails	X				
	3) View Terraces	X				
	4) Visitors Centre	X				
(2) Raghadan Bus Terminal		X	X			X
(3) National Museum		X	X			
(4) Dead Sea Parkway		X <sup>*1)</sup>	X		X	
(5) Dead Sea Panoramic Complex		X	X			
(6) Karak Tourism Development	1) Karak Castle Museum			X		
	2) Visitor Pathway	X <sup>*2)</sup>				
	3) Tourist Street	X		X		
	4) Castle Observation Points	X				
	5) Visitors Centre	X				
(7) Historic Old Salt Development	1) Abu Jaber Building	X		X		
	2) Tourist Trails	X		X		
	3) Public Space	X		X		
	4) Panorama Lookouts	X				

Note: \* 1): Topographic Survey for the 2.5km of connection road has been executed by MPWH.

\* 2): Base line survey for the visitor pathway on the rooftop of the Karak Castle has been executed.

Source: JICA Study Team