

CHAPTER 9. TOURISM AND URBAN ENVIRONMENT PROGRAM

9.1 Background and Visions

Jericho is renowned as the oldest city in the world and one of the most important tourism spots in the West Bank. The current situation of tourism in and around Jericho is analyzed in **Annex 4**. This Section explains why tourism development and urban environmental improvement are combined into a regional development program in the Jordan Rift Valley area. The urban development concept for Jericho city is compiled in a **separate volume** of the Final Report and it should be referred to in the discussion of the tourism and urban environment program.

9.1.1 Background of the Tourism and Urban Environmental Program

This program consists of “tourism development,” and “improvement of the urban environment”, mainly focusing on the Greater Jericho Area and Jericho city, which is identified as the major urban center of the Jordan Rift Valley. The urban development concept for Jericho city, presented in a separate volume, will incorporate the programs proposed herein for tourism development and urban environment improvement, as well as other programs in agriculture, agribusiness and trades. An overall program concept is shown in the following.

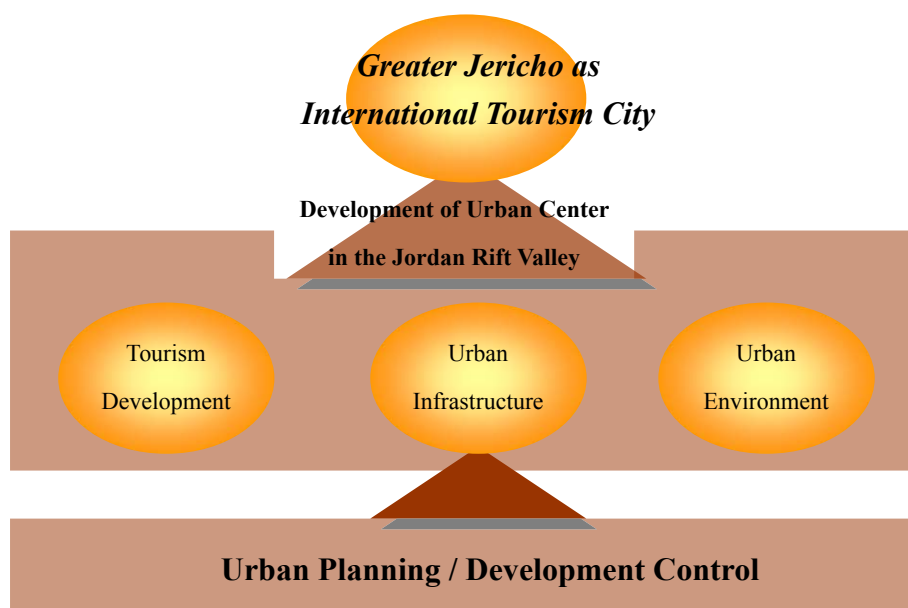


Figure 9.1.1 Concept of Tourism and Urban Environment Program

As mentioned in Chapter 5.2, the tourism sector has potential to be a key player in the future development of Jericho city, not only for economic growth but also for peace building and peace keeping. Jericho city already has an existing base which attracts visitors with its historical heritage of 10,000 years and the archaeological sites in and around the city.

A questionnaire survey given to residents in Jericho city in April 2006 revealed that the expectation for the tourism sector is remarkably high. As indicated in the following figure, almost 60% of respondents answered that they are proud of tourism related assets such as the history and cultural heritage in the city. Most residents expected the tourism sector to be the most promising industry in the future.

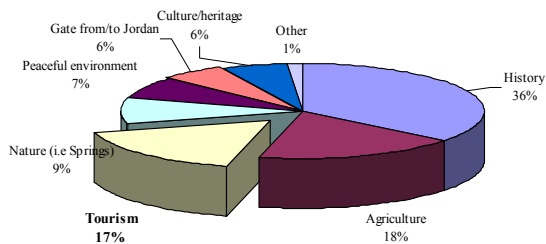


Figure 9.1.2 “What you are proud of in the city?”

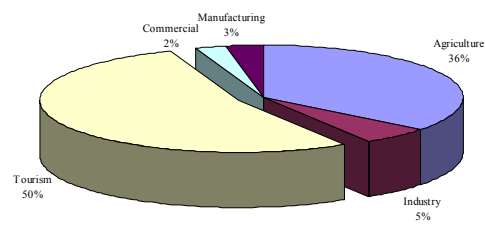
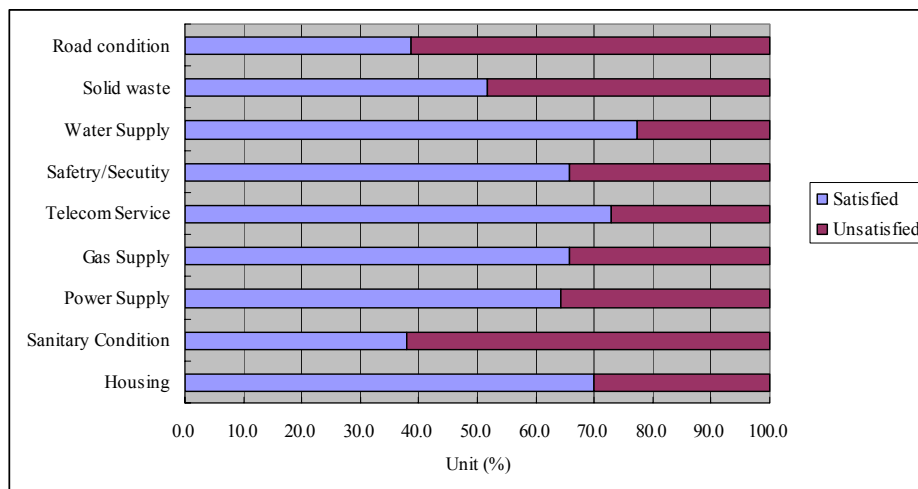


Figure 9.1.3 “What do you expect as a leading industry?”

The tourism sector is the key to create a future image for the Greater Jericho area, and the people recognize its importance for their futures. In order to enhance tourism development, it is necessary to establish a support system and to control and/or manage the urban environment, which in turn will promote tourism development in a more efficient manner.

In terms of the condition of the living environment in Jericho city, the people pointed out that the most unsatisfactory public services are wastewater treatment and road condition in which more than 60% of the respondents answered “not satisfied” as shown below:



Source: JICA Study Team

Figure 9.1.4 Satisfaction with the Living Environment of the People in Jericho City

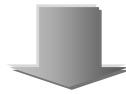
For the water supply sector, the people’s interests are in the quality of the water. Based on the needs assessment survey, about 60% of the respondents selected the water quality as the most important factor in water supply services.

Based on the above survey results, wastewater treatment, road improvement and solid waste management have been focused on in this program for improvement of the urban environment.

9.1.2 Future Visions for Greater Jericho

Future visions for the Greater Jericho area are set in the following manner as targets to attain.

1. To promote urban development, in which the people, both residents and visitors, can feel the dynamics of the most ancient city in the world with a 10,000 year history and many cultural assets
2. To promote urban infrastructure development in harmony with the natural environment, and
3. To promote integrated urban planning and management in order to achieve the future targets in an efficient and effective manner



Future Goal targeted at:
Peaceful City Open to the World

The programs for tourism development and urban environment improvement, as well as an urban development concept of Jericho city to be discussed in a separate volume, will be formulated in pursuit of the future visions as noted above.

9.2 Tourism Development Program

9.2.1 Issues to be Addressed in Tourism Development

Despite the huge potential for tourism development in the Jericho and Jordan Rift Valley, there exist a number of constraints and issues to be addressed for development. The following eight issues in tourism development were identified by the working group discussions in the course of this Study:

- (i) Security environment
- (ii) Insufficient preparation to receive pilgrimage tourism
- (iii) Poor presentation of cultural heritage sites
- (iv) Poor urban amenities in Jericho city
- (v) Limited tourism products
- (vi) Dispatch of sufficient tourism information
- (vii) Strengthening of tourism related institutions
- (viii) Upgrade manpower skills

1) Security Environment

One of the most important issues to be addressed in Jericho tourism is security. Jericho is said to be the most quiet and safe place in the West Bank and Gaza. However, there are occasional military incidents that could potentially threaten the security of tourists. Improvement of the security situation and securing the safety of the tourists should be the most important factor for promotion of tourism development in Jericho city, but this highly depends on the political environment. Development of Jericho tourism should start with dispatch of reliable, frequent and detailed information about security. In the event that security is assured, tourists will come back to Jericho and the Jordan Rift Valley area.

2) Insufficient Preparation to Receive Pilgrimage Tourism

There are many religious pilgrimage tourist destinations in and around Jericho city. The Mount of Temptation, St. George's Church of Koziba Monastery, Dier Hijle Monastery, St. John's Convent, the Baptismal Site, and the trails of Jesus Christ are the religious destinations for Christians. Nabi Musa and Maqam Al-Re'jare the region's Muslim destinations located on the ancient pilgrimage trail to Mecca. According to the short tourist survey conducted by the JICA Study Team, pilgrimage tourists are the main visitors to

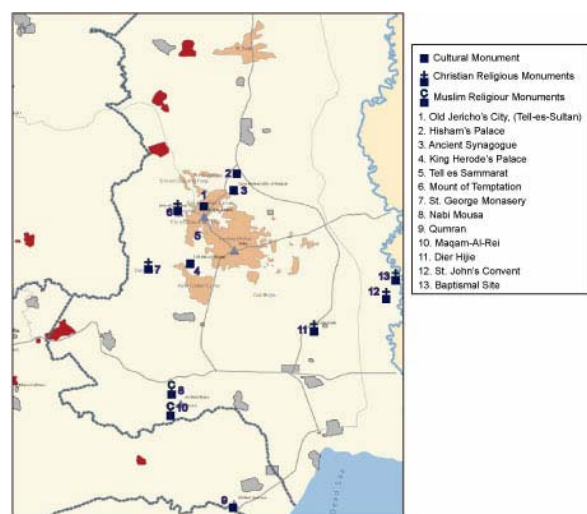


Figure 9.2.1 Cultural and Pilgrimage Tourism Sites

Jericho, representing 60% of all visitors, in spite of insufficient tourist facilities to receive them.

The difficulty is that there are almost no appropriate facilities to receive the pilgrims and support them, such as local tour operators, accommodation at reasonable prices, or shops offering religious mementos or souvenirs to take home. Most pilgrims therefore visit Jericho for a short time drop from a tourism bus and return to Jerusalem the same day. In order to make Jericho one of the most significant pilgrimage tourism destinations in the West Bank, it is necessary to develop Jericho as pilgrimage tourism city with churches, mosques and comfortable accommodations at reasonable prices.

3) Poor Presentation of Cultural Heritage Sites

The tourist sites in and around Jericho city are unique and well known throughout the world. The problems are poor presentation and exhibition of the sites to the tourists. Presentation of archaeological objects, appropriate interpretation, clear guide signs and safety devices are the basic requirements for exhibition of the tourist sites. Issues for development of the cultural heritage sites will include the following:

(i) Ancient Jericho (Tell es-Sultan)

Ancient Jericho has the most unique historical heritage in the Jordan Rift Valley and attracts many foreign tourists. The archaeological site attracts many foreign tourists who have historical and religious interests. However, the site remains abandoned after the pilot excavation leaving insufficient attractiveness for tourists. In order to enhance its cultural value and tourist attraction, it is required to improve its presentation and upgrade the attraction for tourists.



Excavation of the site, development of a Visitor Center to introduce its history and the culture of the palace to visitors prior to visiting the site, appropriate interpretation and visiting routes at the site and safety devices to protect tourists are the minimum requirements to vitalize Ancient Jericho city as a unique tourist site for Jericho tourism.

(ii) Hisham's Palace

Hisham's Palace is an attractive cultural tourism destination, especially for domestic tourists. In 2005, the number of domestic visitors had recovered to the level of before the Second Intifada, despite the control of movement of the Palestinians to visit Jericho city. Technical assistance is being extended by the Italian Government and USAID through UNESCO. The development plan is, however, limited to restoration of the remains of the palace. Such supporting facilities, as access roads, parking lots and tourist facilities are not included in the



assistance programs. The site museum was rehabilitated with the assistance of UNDP, but its exhibitions have not been prepared for tourists. It would be better if it were developed as a Heritage Center in Jericho city in coordination with other cultural heritage sites in Jericho city.

In the development plan, restoration of mosaic art and restoration of a mosaic floor in the dining room, which is valuable from archeological and historical viewpoints, is included for technical training. The workshop for mosaic restoration, which was funded by the Government of Italy, has four local specialists who were trained on the project and are working on the mosaic art's restoration in Hisham's palace. This would contribute to create new job opportunities for qualified personnel, as well as develop the most important monument in the Jericho area.

(iii) King Herod's Winter Palace

This is one of the most attractive historical sites in Jericho; however, it is located in Area C and therefore, left abandoned due to political segregation.



4) Poor Urban Amenities in Jericho City

Generally, urban tourism generates great economic impact on the host country. Established accommodation, transport, dining and shopping opportunities are the main income generating opportunities. However, insufficient urban amenities in Jericho city may discourage tourists to make Jericho their destination and enjoy visiting, walking, shopping and dining. As a result, Jericho city is losing business and employment opportunities that would generate tourism revenue. Urban amenities in Jericho should be improved and the city made an enjoyable place for tourists. Beautification of the town, development of a tourist quarter and tourist streets, museums, open fruit and vegetable markets, parking areas for visitors and promotion of entertainment will be essential tasks to make Jericho city a delightful tourism town.

5) Limited Tourism Products

(i) Diversification of tourism products

The main tourism products of Jericho city are, at present, limited to pilgrimage tourism, sight seeing tourism and conference tourism. However, they are not operated by Palestinians but rather by foreign tour operators. At present, there are only a few local tour operators in Jericho city who are able to operate local tourism attractions for domestic and foreign tourists. Therefore, Jericho tourism is mainly run by foreign tour operators. In order to attract more diversified tourist markets, it is required to develop more variety of tourism products to meet their wishes, such as sport tourism, MICE tourism, resort and shopping tourism, which are currently stagnated in a premature stage.

(ii) Maintaining the number of visitors in the hot summer

The hot climate in the summer season in Jericho is a constraint to vacationers. It is important to attract summer vacationers to compensate for the seasonal drop of visitors. Water recreation

programs, evening programs and special offers will be necessary to attract tourists during the summer season. For instance, the Inter-Continental Hotel in Jericho city has different types of swimming pools, which attracted many domestic tourists and made July and August the high season for tourism in 2005.

(iii) Attracting tourists from Jerusalem

The proximity to Jerusalem is an advantage to attract tourists to visit Jericho city. However, it is at the same time, a strong magnet to take overnight tourists away from Jericho city because West Jerusalem has many modern hotels of international quality and appropriate infrastructure. Tour operators prefer to send customers to hotels in West Jerusalem to avoid any trouble due to insufficient communication tools for making reservations. At the same time, Jerusalem has become established as an attractive world tourism destination for tourists to enjoy shopping, dining and walking.

6) Insufficient Tourism Information

Insufficient tourism information about Jericho city is an obstacle for tourism operators in developing tour programs for visiting the city. Not many beautiful tour brochures are being published in the West Bank and Gaza, and those that do exist do not have enough photographs, so tour operators are unable to provide concrete and practical tourism information to their customers. It is necessary to re-arrange them in accordance with an appropriate brochure system such as overseas image publicity, arrival information, agent information and on-site information.

7) Insufficient Resources regarding Tourism Related Institutions

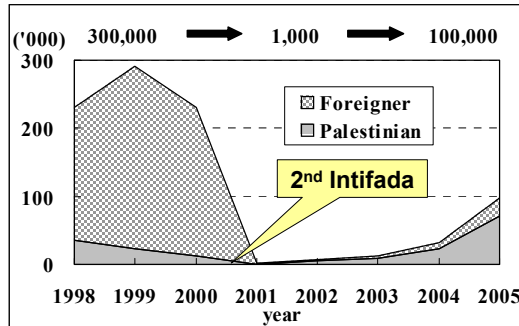
The Ministry of Tourism and Antiquity (MoTA) has 21 staff in its Jericho office but most of them are archaeologists and only two persons are in charge of administration. The limited budget for MoTA Jericho Branch prevents establishing a computerized information network system, which nowadays is the most effective method of public relations for dispatching the latest information to tour operators and customers in international markets.

8) Insufficient Manpower Skills

Because of its location, skilled personnel trained in Bethlehem and Jerusalem do not want to come to Jericho, and the tourism related establishments are obliged to employ unskilled local workers. There is no vocational tourism school in Jericho at present. A tourism training school will eventually need to be established.

9.2.2 Development Target

The target number of tourist visits has been set based on analysis of the previous tourist arrivals as summarized below:



- Visitors to Jericho city drastically decreased from 300,000 to 1,000 immediately after the Second Intifada.
- Visitors recovered to 100,000 in 2005.
- Palestinian tourists increased from 35,000 to 71,000 in 2005.
- There were more Palestinian tourists than foreign tourists in 2005.

Figure 9.2.2 Annual Trend of Tourist Arrivals to Jericho

The forecast of future tourist arrivals is based on the following assumptions:

- (i) After the sharp decrease of tourist arrivals in 2001, tourist arrivals increased to more than 100,000 within five years.
- (ii) Overnight tourists are assumed to be 30 % of total tourists.
- (iii) Number of workers in the tourism sector was approximately 1.0% of tourist arrivals in 2000, 2515 workers for 231,612 tourist arrivals.
- (iv) Required number of rooms is estimated as 80% of the cumulative overnight numbers.

As noted in Chapter 5.2, three development scenarios have been discussed among the Working Group members composed of the representatives of the MoTA, MoP, private companies (tourism industry), NGOs, UNESCO, UNDP and the JICA Study Team.

1) Scenario I (Low Growth Scenario)

Scenario I is based on the actual increase of tourism arrivals between 2001 and 2005, currently around 100,000, and it is assumed to continue in the future within the present political and social conditions. The estimated number of tourist arrivals to Jericho is expected to be 200,000 in 2010 and 300,000 in 2015 based upon the assumption that the present political and social situations will not drastically change.

The annual growth rate of the number of visitors to the Jordan Rift Valley is estimated to be about 12%, which does not appear to be difficult taking into consideration the recorded annual growth rate of 250% in the past three years and the fact that the number of visitors as of 1999 was 300,000, which is the same as targeted in this scenario.

Table 9.2.1 Scenario I of Tourism Development (Low Growth Scenario)

Items	Unit	2000	2004	2005	2010	2015
Tourist Arrivals	No.	231,612	98,248	108,268	200,000	300,000
Duration of Stay	day	2.9	1.0	1.1	1.5	1.5
Hotel rooms	No.	301	323	323	323	323
Occupation Rate	%	63%	25%	28%	51%	76%
Workers	No.	2,515	250	275	2,000	3,000
Employment Rate	%	1.1%	0.3%	0.3%	1.0%	1.0%
Per capita expenditure	US\$	69	122	130	140	150
Tourism Revenue	mil. US\$	46.0	12.0	15.5	42.0	67.5

2) Scenario II (Moderate Growth Scenario)

This scenario is based on the condition that the effort for tourism development and promotion will speed up the rate of increase of tourist arrivals. In order to achieve this scenario, tourism development and promotion must be strengthened in cooperation with the neighboring countries. The promotion of pilgrimage tourism, upgrade of the exhibition of cultural tourist sites, development of new tourism products and reinforcement of the Jericho urban tourism base will be essential. Regional peace will accelerate the growth of tourism in the Jericho and the Jordan Rift Valley area. The target numbers of tourist arrivals to Jericho and the Jordan Rift Valley is 400,000 in 2010 and 670,000 in 2015. The annual average growth rate of the visitors to Jericho and Jordan Rift Valley is projected at 21%. In order to achieve this targeted number, emphasis should be placed on the increase in foreign tourist visitors.

Table 9.2.2 Scenario II of Tourism Development (Moderate Growth Scenario)

Items	Unit	2000	2004	2005	2010	2015
Tourist Arrivals	No.	231,612	98,248	108,268	400,000	670,000
Duration of Stay	day	2.9	1.0	1.1	1.8	2.5
Hotel rooms	No.	301	323	323	410	690
Occupation Rate	%	63%	25%	28%	80%	80%
Workers	No.	2,515	250	275	4,000	6,700
Employment Rate	%	1.1%	0.3%	0.3%	1.0%	1.0%
Per capita expenditure	US\$	69	122	130	140	150
Tourism Revenue	mil. US\$	46.0	12.0	15.5	100.8	251.3

3) Scenario III (High Growth Scenario)

This is based on the development scenario that progressive regional peace is achieved along with strong tourism promotion emphasizing regional peace. This would attract a great number of international tourists to Jericho and the West Bank and tourism will become one of the leading industries in Jericho and the Jordan Rift valley. Free movement of Palestinian tourists and exemption of entry visas by the neighboring countries will attract many Christians, sight seeing tourists, and MICE tourists from around the world. Jericho could become one of the most important tourist centers in the region on a par with Jerusalem and Amman. The target number of tourist arrivals to Jericho under this scenario is 1,000,000 in 2010 and 1,760,000 in 2015.

Table 9.2.3 Scenario III of Tourism Development (High Growth Scenario)

Items	Unit	2000	2004	2005	2010	2015
Tourist Arrivals	No.	231,612	98,248	108,268	1,000,000	1,760,000
Duration of Stay	day	2.9	1.0	1.1	2.5	4.0
Hotel rooms	No.	301	323	323	1,030	1,800
Occupation Rate	%	63%	25%	28%	80%	80%
Workers	No.	2,515	250	275	10,000	17,600
Employment Rate	%	1.1%	0.3%	0.3%	1.0%	1.0%
Per capita expenditure	US\$	69	122	130	140	150
Tourism Revenue	mil. US\$	46.0	12.0	15.5	350.0	1,056.0

9.2.3 Development Strategies

(1) Assessment of Tourism Resources

An assessment of the tourism resources has been conducted together with the evaluation of values for tourism. These have been conducted through site surveys, discussions with the MoTA and the Tourism Working Group, as well as interviews with tourists on site. The evaluation results are summarized in the following table.

Table 9.2.4 Assessment of Tourism Resources in Greater Jericho

No.		Category	Accessi- bility	Presenta- tion	Attractive- ness	Facility	Potential	Global
1	Tell es-Sultan	Old Jericho	A	E	C	B	A	C
2	Hisham's Palace	Cultural	A	B	B	B	A	B
3	Ancient Synagogue	Religious	B	D	D	C	B	C
4	King Herod's Palace	Cultural	C	C	B	E	A	B
5	Tell es-Sammarat	Cultural	C	E	B	E	C	C
6	Mt. Temptation	Religious	A	B	B	A	B	B
7	St. George Monastery	Religious	D	B	A	B	B	B
8	Nabi Musa	Religious	B	C	B	D	B	B
9	Qumran	Cultural	A	B	B	A	B	B
10	Maqam Al-Re'j	Religious	C	B	C	B	C	C
11	Dier Hijle	Religious	A	A	B	B	C	B
12	St Johns Convent	Religious	B	A	B	C	C	B
13	Baptismal Site	Religious	B	B	C	B	B	B
14	Religious Trail	Religious	C	C	B	D	B	C
15	Dead Sea	Natural	B	B	B	D	A	B
16	Rift Valley Landscape	Natural	B	B	A	E	C	C
17	Geological Wonder	Natural	B	B	A	E	B	C
18	Mild Climate	Natural	-	-	A	B	A	A

Note: A: Excellent, B: good, C: Medium, D: Low, E: Poor

Source: MoTA, JICA Study Team (Tourism Working Group)

Based upon the assessment above, five resources are listed as having a high potential for tourism development.

- (i) Tell es-Sultan: Historical symbol of the city as the oldest town in the world.
- (ii) Hisham's Palace: Relatively well-restored by international donors' funds and has an ongoing project to train specialists for mosaic restoration
- (iii) King Herod's Palace: Located in Area C and cultural cooperation of Palestinian and Israeli archaeologists is expected for excavation and development of the historical site
- (iv) Dead Sea: Potential resource for resort development to attract high-end tourists
- (v) Mild climate: Suitable climate for winter-time resorts, which began with the winter palace in Roman times

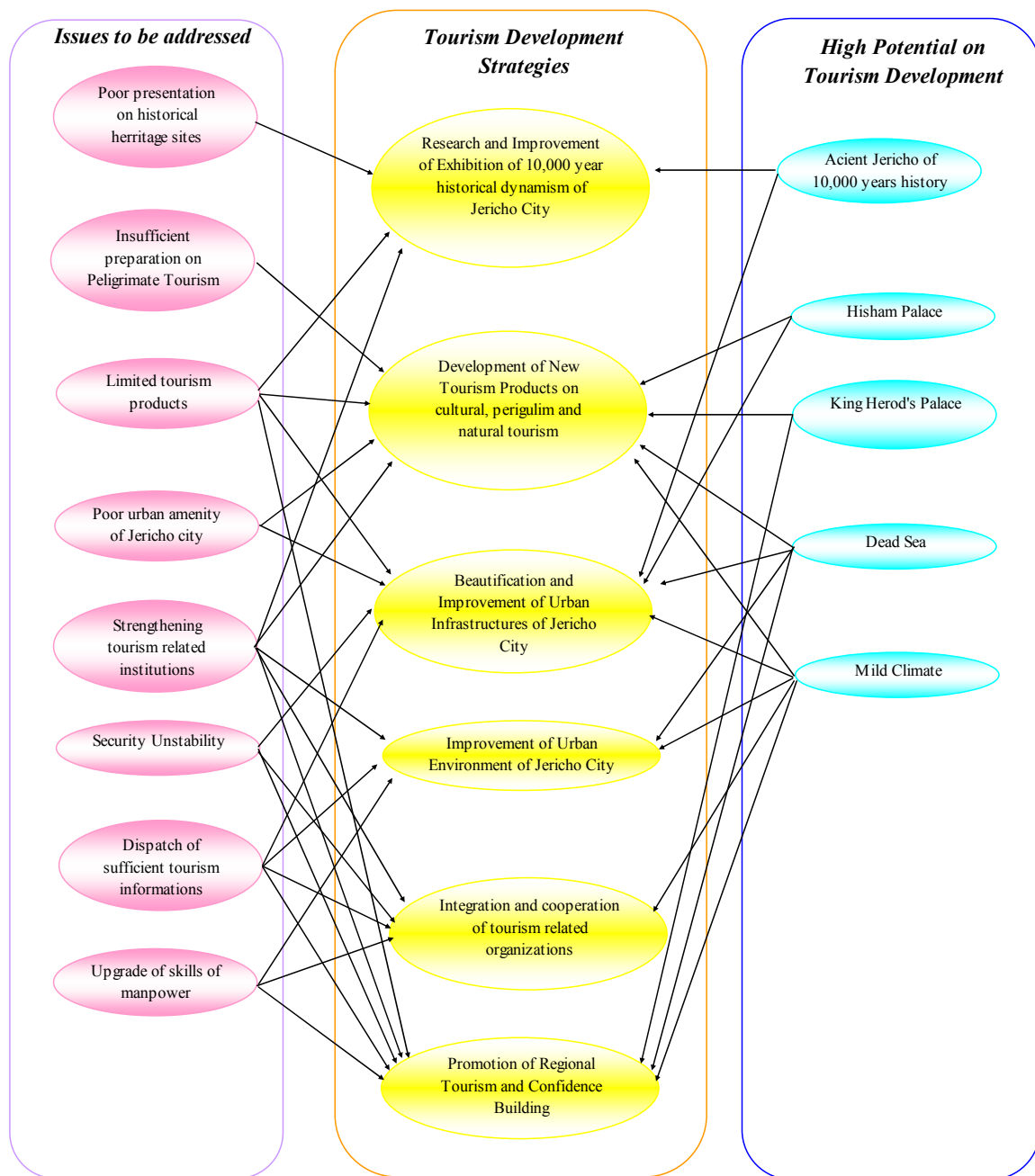
Historical, cultural, religious and natural resources are recognized as being sufficient to attract both international and domestic tourists. Accessibility and attractiveness are recognized to be good, but exhibition at the site and development of tourist facilities are the urgent things to improve and upgrade in order to satisfy the visiting tourists, especially international tourists. Upgrading of presentation of the sites, including appropriate exhibitions, and development of suitable tourist facilities are the general requirements for upgrading of tourist resources.

The main tourism product in Jericho is pilgrimage tourism, which offers the chance for tourists to pray at the religious places and see the historical and religious monuments. According to the present security condition, most tour programs are composed just for visiting the site with a group. The tourism products for FIT (Free Independent Tourism) are not yet sold in the tourist market. In order to attract more tourists, it is essential to strategically develop new sorts of tourism products with activities and participating tourism, such as to copy part of the bible, to repair buildings of a monastery, to learn local cooking, mosaic making, traditional music, dance, handicrafts and engage in sports such as marathon running, bicycling and sport festivals using cultural remains. These active participatory tourism products are getting popular around the world and changing the attraction of tourism products.

Development of tourist facilities is needed to sufficiently accommodate the tourists. Insufficient facilities are obstructing a pleasant stay. Although tourist facilities at Qumran are evaluated "A", Excellent, it is located in Area C and was developed by the Israelis.

(2) Tourism Promotion Strategy

Based on the issues to be addressed and the assessment of the development potential of the tourism resources, the seven strategies for tourism development are identified as shown in the following figure.



Source: JICA Study Team

Figure 9.2.3 Tourism Promotion Strategies

The outlines of the seven strategies are as follows:

- 1) Research and improvement of the exhibition of the 10,000-year historical dynamics of Jericho City

The longest history of human activities in the world at 10,000 years is the most valuable resource of Jericho city. However, the entire history of the 10,000 years is still unknown. In order to properly present the archaeological sites, it is essential to establish attractive exhibition of the archaeological objects, particularly at Tell es-Sultan. The excavation and research activities should continue in cooperation with Palestinian archaeologists and transfer technology in excavation, conservation,

protection of the discovered objects and exhibition in the museum in order to enhance attractiveness and to protect the objects from theft and destruction.

2) Development of New Tourism Products

Development of new tourism products should be promoted in coordination with the tourism products in other countries in the region. Analysis of uniqueness and competitiveness of similar tourism products, and the ability to complement other potential tourism products should be taken into consideration. As the tourism resources in the region have common cultural and historical backgrounds, development of tourism products should be based on the regional view of the history and culture.

Resorts have potential in Jericho and the Jordan Rift Valley, especially for domestic tourists. The wild and unpolluted natural environment and pleasant climate from autumn to spring in the Jordan Rift Valley are the resources of resort tourism, which would include agro-tourism and eco-tourism. To enjoy the amenities of a pleasant resort town is essential for resort development. Therefore, upgrading the quality of resort life in Jericho will certainly be wanted by domestic tourists when the living standards of the Palestinian people are enhanced. The resort tourism efforts in Jericho should be oriented to make it a pleasant and enjoyable town and promote tourism related businesses.

It is also noted that park and resort development along the Dead Sea coast has great potential. Development activities in Jordan and Israel along the Dead Sea coast have been taking place in several places. Large vacant parcels of land along the coast adjacent to Jericho city exist. The preliminary ideas for a Dead Sea Park and resort development are as follows:

Preliminary Ideas for Dead Sea Coastal Park/Resort Development

- Accommodation: 80 rooms x 500 sqm/room = 40 dunum
- Tourist quarters in the town: = 250 dunum
- Dead Sea nature park: = 2,000 dunum
- Parking, roads and utilities: = 200 dunum

3) Beautification and Improvement of the Urban Infrastructures of Jericho City

It is pointed out that Jericho city has insufficient economic and social infrastructures and urban amenities for visitors for it to function as a tourism base city. Re-development of the city center and the main street would be required to develop Jericho city as an international tourism base city. For the re-construction activities, it would be necessary to develop a main transportation network and new urban development zones along the main street. The old city center could be re-developed as a new city center with better urban amenities for the residents and visitors.

4) Improvement of the Urban Environment of Jericho City

Improvement of the urban environment is also necessary to upgrade urban amenities for Jericho city. Special attention should be given to the cleanness of the main street by introducing a better solid waste management system. The uncontrolled dumping along Wadi Qilt channel is another cause of the dirty

image of Jericho city, which must be completely rectified for further development as a tourism base city. In this context, upgrading solid waste management and development of wastewater treatment systems would be essential.

5) Integration and Cooperation of Tourism Related Organizations

Most of MoTA administration works are being done by the headquarters in Ramallah at present. In order to activate the Jericho branch and reinforce its administrative and marketing capacity, it is essential to increase staff in charge of administration and planning and upgrade their capacity. It is also required to establish a computerized information network system for promotion of Jericho tourism in the world markets. Moreover, it is important that the tourism development and promotion activities in Jericho city should be lead by Jericho municipality together with the MoTA and other related agencies, such as the Ministry of Agriculture, hotel owners' association in Jericho city, souvenir shop owners' group, chamber of commerce in Jericho, the women's society and so on. The integration and cooperation of the tourism related agencies for tourism development and promotion activities would produce new tourism products such as agro-tourism, eco-tourism, and souvenir industries.

6) Promotion of Participation by Local Residents

One of the most important objectives of tourism development is to generate revenue in the local communities, but the participation of the local community and tourism industry shall be essential for this. This is not only for economic reasons but also for the sustainability of the tourism. In order to establish favorable cooperation between the local community and the tourism industry, it is recommended that the tourism industry to support and participate in the activities of the local communities, such as festivals, exhibitions and ceremonies. In return, local communities should also participate in the commercial events of the tourism industry, such as exhibitions of special events to introduce local life style and products for tourists.

7) Promotion of Regional Tourism and Confidence Building

Promotion of regional tourism is of vital significance for Jericho tourism development. Joint tourism promotion would be better enhanced in cooperation with the neighboring countries, particularly Israel and Jordan. In addition to the fact that tourism promotes mutual understanding between tourists and the local people, it would promote confidence building among the people of the countries in the region, which in turn would contribute to regional peace making and peace keeping.

9.2.4 Tourism Development Programs

(1) Overall Tourism Development Programs

Along with the tourism development strategies, a total of nineteen projects are proposed as the components of the tourism development program, which forms part of the Tourism and Urban Environment Program of the Integrated Jericho Regional Development. There projects are listed in the following figure and table.

Table 9.2.5 Candidate Projects under the Tourism Development Program

Strategy	Project	Main implementation agency	Project Priority	Project Components		
Strategy-1	Improvement of Exhibition of the Archeological Sites	T1	Improvement of Ancient Jericho (Tell es-Sultan)	MoTA	A	1) Excavation and research activities 2) Improvement of presentation 3) Protection works for the trench wall 4) Improvement of tourism facilities
		T2	Improvement of Hisham's Palace	MoTA	A	1) Restoration of mosaic wall 2) Improvement of Hisham's palace museum 3) Full scale restoration of Hisham's palace 4) Improvement of access road, parking and tourists' square
		T3	Improvement of King Herod's Winter Palace	MoTA	C	1) Excavation and research activities 2) Study and design for preservation and presentation 3) Restoration activities with construction of tourist facilities
Strategy-2	Development of New Tourism Products	T4	Establishment of Jericho Historical Museum	Jericho city / MoTA	B	1) Development of a database on the overall history of Jericho city 2) Overall plan for exhibition of 10,000 year history 3) Construction of buildings and surrounding improvement
		T5	Cultural and Historical Pedestrian Network Development	Jericho city / MoTA	B	1) Inventory survey and GIS mapping for archeological sites 2) Development of historical /cultural footpath network
		T6	Mosaic Art Promotion and Dissemination Project	MoTA / Jericho city	A	1) Establishment of training course for mosaic art processing 2) Mosaic information signboard network development 3) Mosaic art studio network for souvenir industry
		T7	Development of Agro-Tourism Zones	MoA / MoTA / Jericho city	B	1) Establishment of agro-tourism center in Botanic Gardens 2) Establishment of agro-tourism association and training course 3) Development of service program and dissemination
		T8	Resort Development in Jericho city and Dead Sea Coastal Area	MoNE / MoTA	B / C	1) Hotels / cottages with water / nature attractions in Jericho city 2) Detail plan formulation for Dead sea resort 3) Development of dead sea resort with 2,000 dunum coastal area
Strategy-3 and 4	Beautification of city center and urban environment	T9	Re-development of Jericho city Center	Jericho / MoPW / MoTA	C	1) Detail urban planning for Jericho city 2) Relocation of vegetable market and MOA experimental farm 3) Landscape improvement of main street / arcade 4) Cleaning and green plantation along Wadi Qilt
		T10	Widening sidewalks and tree plantation along the streets	Jericho city / MoPW	B	1) Plan and design of sidewalk network in Jericho city 2) Land readjustment for widening sidewalks and greenbelts 3) Construction of sidewalks and green belts along the streets

Strategy		Project	Main implementation agency	Project Priority	Project Components
Strategy-3 and 4 (Cont'd)	Beautification of city center and urban environment	T11 Development of New Administration Zone for Jericho	Jericho city / MoPW	C	1) Selection of new administration zone 2) Design competition for new administrative center 3) Construction
		T12 Development of Jericho International Communication Zone	MoLG / MoA / MoP / Jericho	C	1) Establishment of new agricultural research and extension center 2) Establishment of community empowerment center 3) Institutional set-up for international cooperation activities 4) Formulation of international seminars and cooperative programs
		T13 Development of New Jericho Vegetable Market	Jericho city / MoA	B	1) Development of 1st stage of new Jericho Vegetable market 2) Improvement of access road to the market 3) Development of 2nd stage of new Jericho Vegetable market 4) Extension to Area C for marketing to Israeli buyers
Strategy-5	Integration and cooperation of tourism related organizations	T14 Formulation of Tourism Promotion Committee in Jericho city	Jericho Tourism Committee	A	1) To be organized by Jericho city and MOTA to invite all related public and private associations related to tourism sector
		T15 Execution of tourism promotion activities	Jericho Tourism Committee	A	1) Execution of festivals, promotion events, inter-regional workshops and so on 2) Preparation of travel brochure, home-page for promotion
		T16 Strengthening MOTA Jericho Branch	MoTA	B	1) To increase staff 2) To provide appropriate training for tourism promotion, archeological preservation, and so on
Strategy-6	Participation of Local People	T17 Promotion of local products and souvenir industry	Jericho Tourism Committee	A	1) Development of mosaic art souvenirs 2) Production of Banana cookies /cakes for souvenirs by women's group, and so on
		T18 Establishment of training course of tourist guides for Jericho	Jericho Tourism Committee	B	1) Development of training curriculum and text 2) Establishment of tourist guide registration system 3) Development of network with tourism agents / hotels
Strategy-7	Regional Tourism and Confidence	T19 Development of Tourism Promotion video	Jericho city / MoA	A	1) Development of tourism promotional video 2) Distribution of CDs to tourism related organizations in neighboring countries 3) Utilization of promotional video in tourism related facilities in Jericho city

Source: JICA Study Team

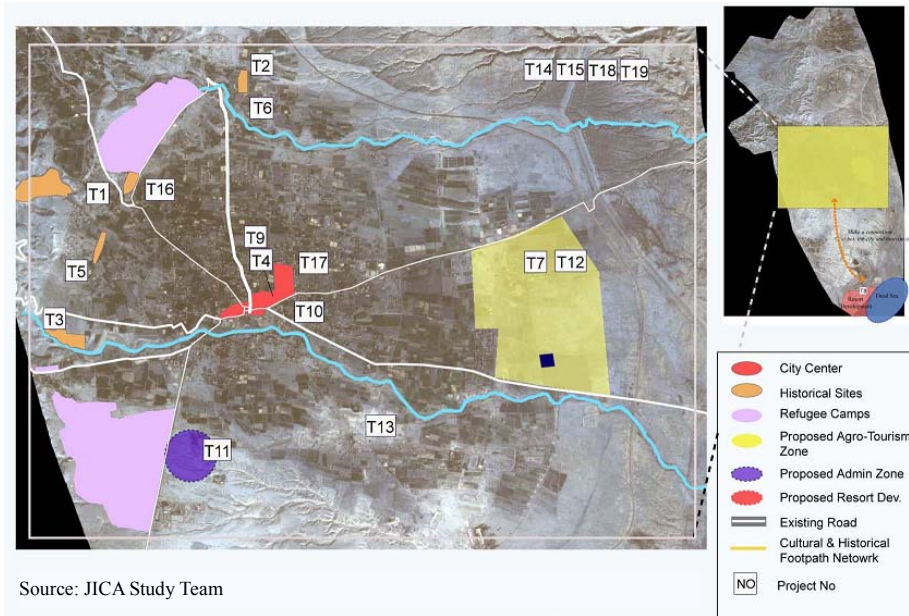
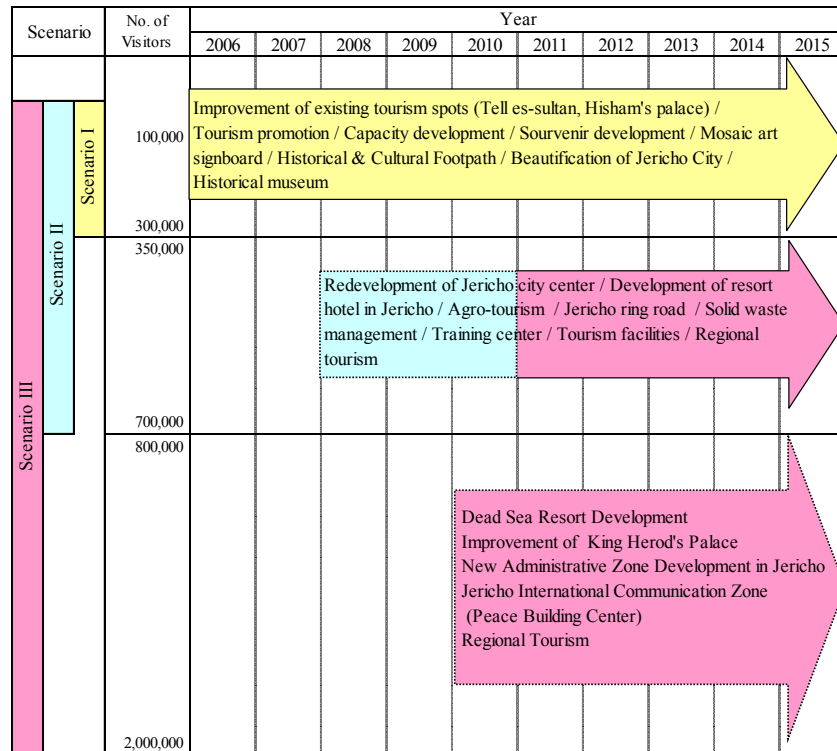


Figure 9.2.4 Location for Tourism Development Program

The projects listed above will be implemented in accordance with the requirements of the progress and growth of tourism. It is noted that the projects with priority “A” are recommended to be included in the short term development program. Projects to be implemented stage-wise are also illustrated in the following figure.



- Projects under Scenario I
- Projects under Scenario II
- Projects under Scenario III

Figure 9.2.5 Tourism Development Program

(2) Short Term Development Programs

The following seven projects are nominated for the short term development programs, which are planned to be implemented within the next 5 year period.

Table 9.2.6 Candidate Projects under the Short Term Development Programs

No	Project	Implementation Agency
T1	Improvement of Ancient Jericho (Tell es-Sultan)	MoTA
T2	Improvement of Hisham's Palace	MoTA
T6	Mosaic Art Promotion and Dissemination Project	MoTA / Jericho city
T14	Formulation of Tourism Promotion Committee in Jericho city	Jericho Tourism Committee
T15	Execution of tourism promotion activities	Jericho Tourism Committee
T17	Promotion of local products and souvenir industry	Jericho Tourism Committee
T19	Development of tourism promotion video	Jericho city / MoA

T1: Improvement of Ancient Jericho (Tell es-Sultan) is most significant and urgent. This is the most valuable archeological site in Jericho and the Jordan Rift valley, and continuous excavation and research activities are essential to reveal the details of the 10,000 years of history. The historical information itself is quite valuable to prove Jericho city as the oldest city in the world. Improvement of presentation of the 10,000 years of history would no doubt attract tourists. Comprehensive improvement activities for Tell es-Sultan are therefore recommended as the most essential projects in the short term development programs. Project proposals for the Tell es-Sultan Archaeological Park by UNESCO and MoTA have been prepared and are waiting for financial assistance. The project scopes are summarized as follows:

Table 9.2.7 Proposed Tell es-Sultan Archaeological Park Projects

Work Items	Activities
Visitor Management	<ul style="list-style-type: none"> To design a visitor accessibility and circulation plan To provide the needed facilities around and within the site To train the staff
Presentation and Interpretation	<ul style="list-style-type: none"> To provide appropriate signage To construct an interpretation center
Planning (Urban Level)	<ul style="list-style-type: none"> To identify the boundaries of both the site and the buffer zone To establish supporting legislation and laws To identify infrastructure problems such as transportation to the site New developments in the area are to be bound by the guidelines
Planning (Landscape Level)	<ul style="list-style-type: none"> To study the cultural landscape of Jericho To identify the visual setting of the site
Planning (Architectural level)	<ul style="list-style-type: none"> To encourage the owners of the surrounding areas to ensure the conservation of their properties in such a way as to reflect their location beside the site New elements within the area like fencing, walls, or others are to be controlled Alterations in existing and new buildings, heights of buildings, shop fronts, materials are to be controlled
Information management	<ul style="list-style-type: none"> To develop a comprehensive data-base of information To publicize the information in books, booklets, leaflets, maps, CDs, and videos
Community awareness	<ul style="list-style-type: none"> To conduct workshops presenting information about the site, as well as its significance To carry out various awareness campaigns To train professionals to organize awareness campaigns

Work Items	Activities
Promotion	<ul style="list-style-type: none"> • To conduct guided tours • To promote the site through programs on TV, Radio, the Internet or other media • To hold historical activities annually

T2: Improvement of Hisham's Palace is also an on-going project being done with technical and financial assistance from USAID. The restoration of mosaic art in the palace and partial restoration of the palace are underway. Hisham's palace is the most popular tourism spot in Jericho city, particularly for domestic tourists and the visitors numbered about 70,000 in 2005. Continuing improvement activities, including full restoration of the palace, upgrading of the museum, and provision of a better access road, parking lot and tourism square in front of the palace would be required.

T6: Mosaic Art Promotion and Dissemination Project, T14: Formulation of Tourism Promotion Committee, T15: Execution of tourism promotion activities, and T17: Promotion of local products and souvenir industry and T18: Development of tourism promotional video are nominated in the short term development program. These projects are essential to establish the basis of tourism development in Jericho city for strengthening tourism related organizations as well as for quick economic impact from the tourism sector to the people of Jericho in the form of development of the tourism souvenir industry and creation of job opportunities. They could be implemented without large investments.

(3) Mid and Long Term Development Programs

Candidate projects under the mid term development program are planned for implementation within a 3 to 7 year period. Seven projects are listed, of which four projects are to develop new tourism products.

T4: Establishment of Jericho Historical Museum is planned as the new tourism spot for exhibition of the entire history of Jericho city. Integration of the valuable historical information and the treasures discovered in the different archeological sites are to be conserved and exhibited in the center. The center shall be constructed in the city center for tourists to highlight all the archeological and pilgrimage sites in Jericho city along with the historical story. The center shall be designed as a space for the visitors to feel the dynamics of the most ancient city in the world by utilizing the tale of its 10,000-year history and cultural assets.

T5: Cultural and historical footpath network development is to develop footpaths for the tourists to walk in Jericho city with different purposes. Jericho city is known as the crossroads of religions for Christians, Moslems and Jews, and there are many spots for pilgrimage tourists of the different religions. The trail network development would attract such pilgrim tourists to visit and stay longer in Jericho, which would increase visitors, taking into consideration that 60% of the foreign tourists to Jericho come for a pilgrimage.

T7: Development of an Agro-Tourism Zone is planned as one of the new tourism products for Jericho and the Jordan Rift valley. Agriculture is currently the main economic activity in Jericho and the Jordan Rift

valley and the sizable greenery and flat landscape are unique assets and attract domestic tourists from other parts of the West Bank. Fruit gardens, like bananas and grapes, and dinners of organic vegetables in farm houses would make an unforgettable opportunity for urban residents. At the same time, the mingling of farmers and urban residents generates mutual understanding about agricultural production and rural life. The western part of Jericho city would be the best place for the agro-tourism center, as it has a botanic garden, bird watching spots, and other tourism facilities on a large fruit and vegetable farm. Another potential agro-tourism development area is in Auja village, 10 km north of Jericho city. Banana farms with year-round surface water flow exist in the area which would attract domestic tourists from the urban areas.

T8: Resort Development in Jericho is for tourists to enjoy the warm climate of Jericho and the Jordan Rift valley in winter. The winter temperature in Jericho is more or less 10°C higher than Jerusalem, Ramallah and other major cities in the West Bank. In fact, Jericho is well known as a historical winter palace. King Herod's Palace in the Roman era was the winter palace of King Herod of Israel for enjoyment of the warm climate. Hotel and cottage development would promote private investments in Jericho city for long-stay visitors to enjoy the winter climate with its abundant nature and history. The candidate development sites are selected in the east of Jericho city at the botanic garden and agro-tourism zone for integration of nature tourism, agro-tourism and enjoyment of the exotic scene of moon valley to the west and the green flat plain to the east.

T13: Development of New Jericho Vegetable Market is planned by Jericho Municipality to relocate the existing vegetable market in the city. The new location is about 3 km southeast of the city center. The design was completed by Jericho Municipality and the first stage of construction was commenced under the financial assistance of IFAD. The site of the old market is the most valuable place for urban development, which is a key component of the redevelopment planning for the Jericho city center.

T16: Strengthening of the MoTA Jericho branch, and T18: Establishment of training courses for tourist guides are proposed together with the development activities for new tourism development. The number of tourists is expected to increase according to the development of the new tourism products, and the tourism administration should be strengthened keeping pace with the scale of the tourism industry.

Table 9.2.8 Candidate Projects under Mid Term Development Projects

No	Project	Implementation Agency
T4	Establishment of the Jericho Historical Information Center	Jericho city / MoTA
T5	Cultural and Historical Footpath Network Development	Jericho city / MoTA
T7	Development of Agro-Tourism Zones	MoA / MoTA / Jericho city
T8	Resort Development in Jericho city	MoTA
T13	Development of the New Jericho Vegetable Market	Jericho city / MoA
T16	Strengthening MoTA Jericho Branch	MoTA
T18	Establishment of training courses for tourist guides for Jericho	Jericho Tourism Committee

The long term development programs are listed in the following table, with four projects nominated. All the proposed projects are of rather large development scale requiring large investments. In addition, T3: Improvement of King Herod’s Palace, T8: Resort Development in the Dead Sea Coastal area, and T12: Development of Jericho International Communication Zone are all located in Area C. The development activities therefore need to be well coordinated with Israel.

Table 9.2.9 Candidate Projects under the Long Term Development Program

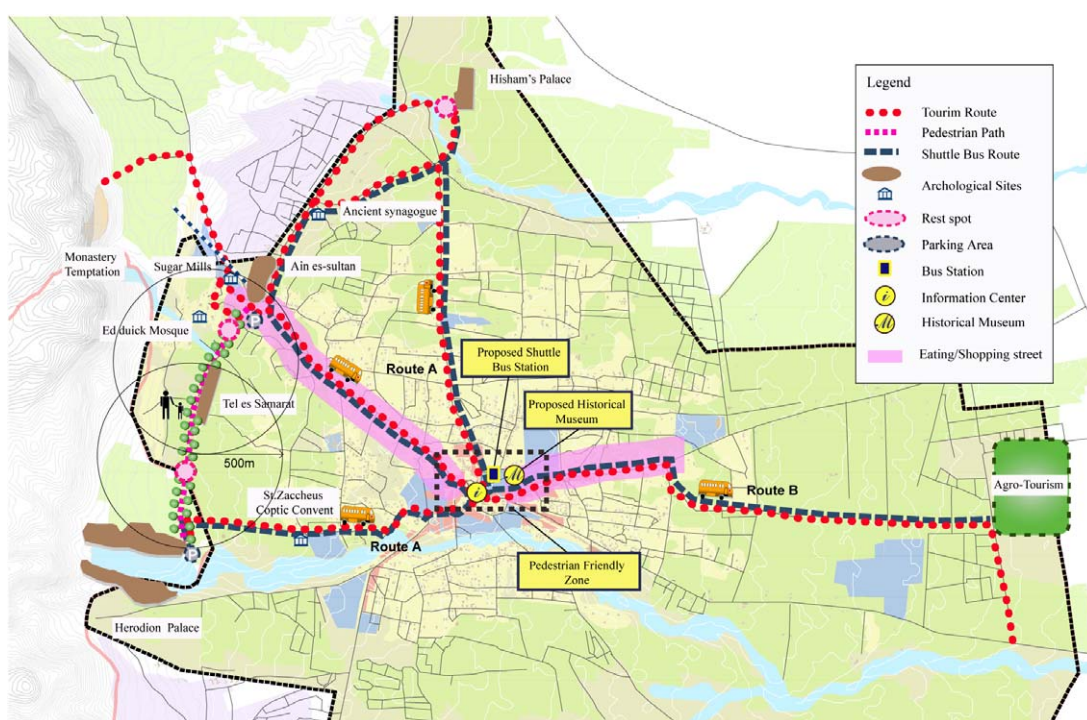
No	Project	Implementation Agency
T3	Improvement of King Herod’s Winter Palace	MoTA
T8	Resort Development in the Dead Sea Coastal Area	MoNE / MoTA
T11	Development of a New Administration Zone for Jericho	Jericho city / MoPW
T12	Development of Jericho International Communication Zone	MoLG / MoA / MoP / Jericho

9.2.5 Conceptual Plans

To promote the implementation of the proposed tourism development programs, some conceptual plans have been worked out in line with the urban development plan of Jericho city. They are a tourist circulation network plan and a city center development plan.

(1) Tourist Circular Network Plan

The tourist circulation network in Jericho city is planned and proposed as shown in the following figure. The network will link major archeological and historical sites as well as agro-tourism development sites. Along this network, a circular shuttle bus service would be provided for tourists and visitors



Source: JICA Study Team

Figure 9.2.6 Tourist Circular Network in Jericho

The tourist circular roads will be improved for both pedestrians and circular bus services, as well as tourist signboards. Some parts of the circular roads would be improved to have trees along the roads and pedestrian decks from where tourists can enjoy the mountain views and landscape of the Jordan Rift Valley. An image of such a pedestrian way is illustrated in the following.

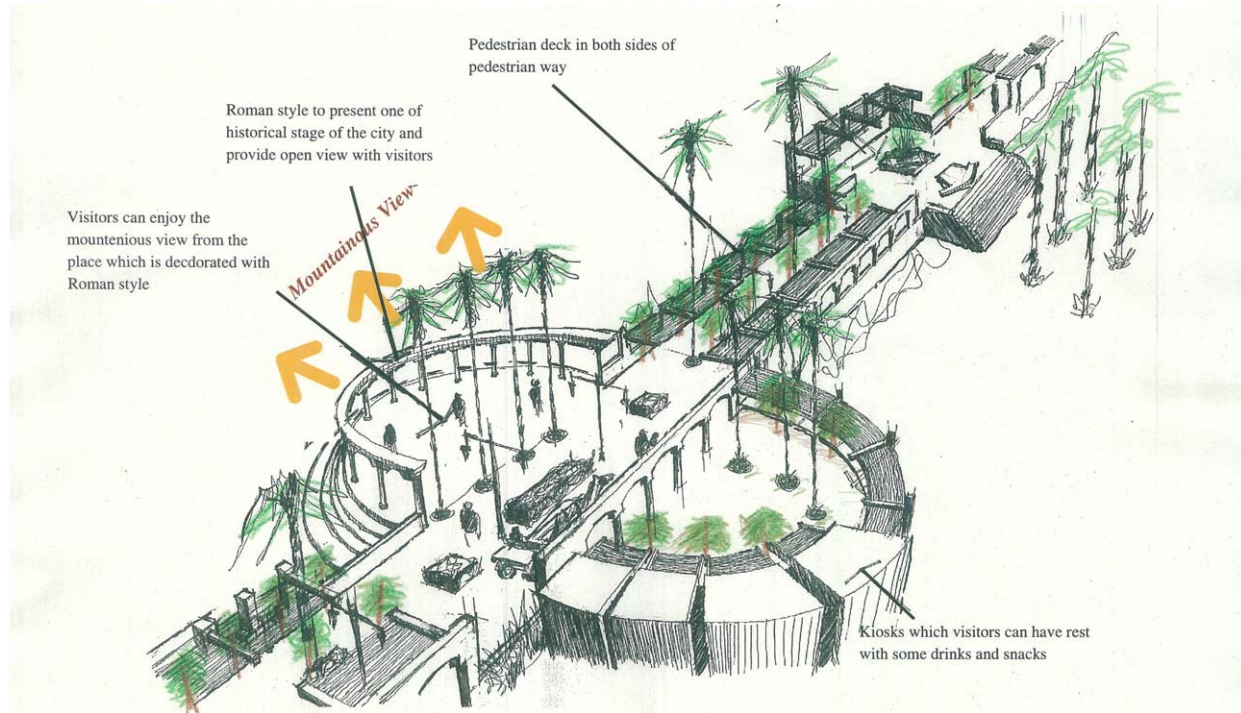
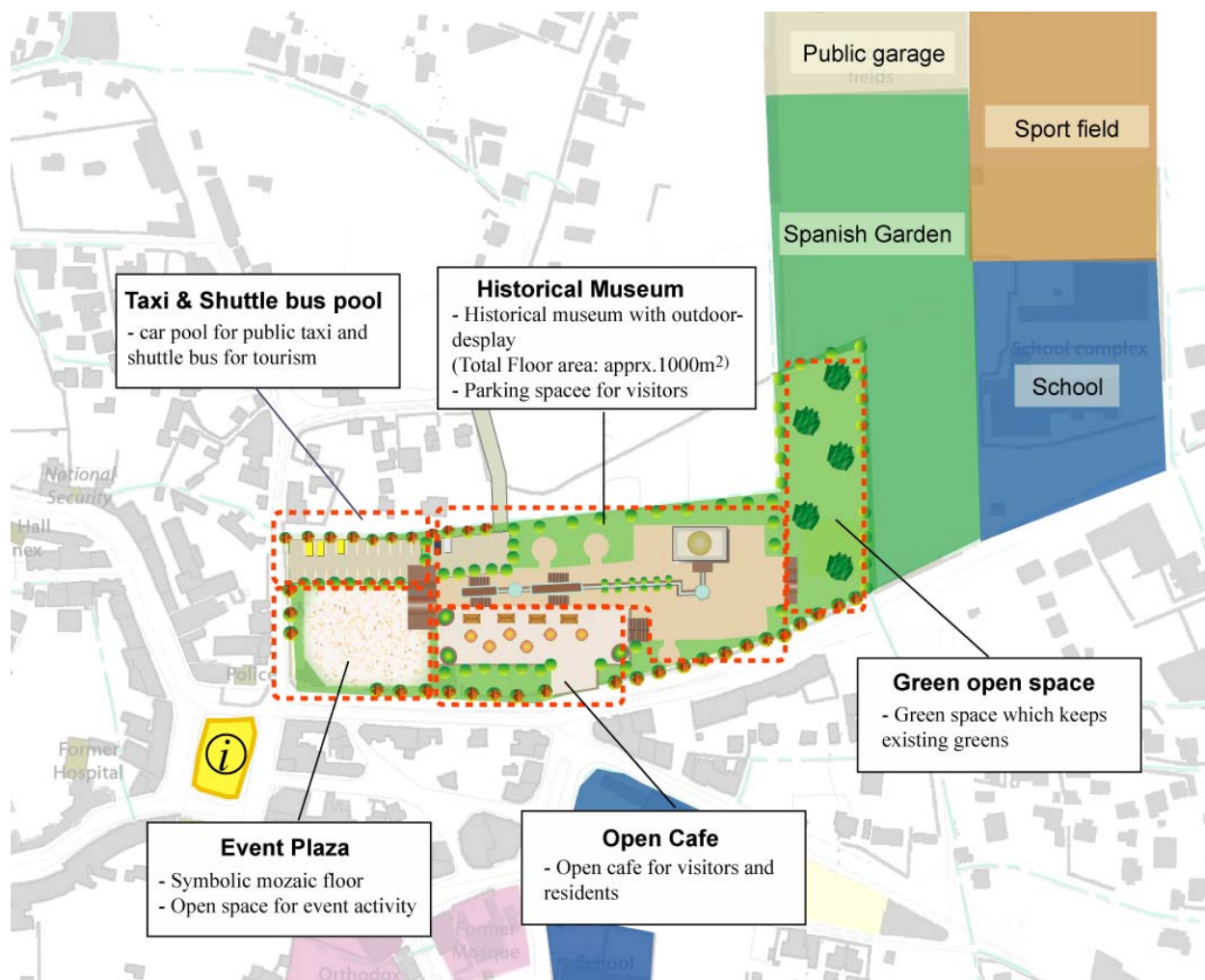


Figure 9.2.7 An Image of the Pedestrian Way between Tell es-Sultan and King Herod's Palace

(2) Jericho City Center Redevelopment Plan

The city center is currently congested with vehicles and markets and it is proposed to be redeveloped under the Urban Development Plan for Jericho city, as presented in a separate volume of the Final Report. Under the urban development plan, it is envisaged to redevelop the area currently used as the demonstration farm of the Ministry of Agriculture. Under the redevelopment plan, it is proposed to set up a historical museum for visitors along with green open spaces, an event plaza, open café and other tourism facilities. A conceptual plan for redevelopment at this city center, though preliminary, has been prepared as shown in the following. Sketches of images of the event plaza and open café to be located in the center are also illustrated.



Source: JICA Study Team

Figure 9.2.8 Conceptual Plan for Jericho City Center and Historical Museum



Source: JICA Study Team

Figure 9.2.9 Image of the Event Plaza



Source: JICA Study Team

Figure 9.2.10 Image of the Open Café

These facilities for tourism development will be programmed for implementation along with the urban development plan for Jericho city.

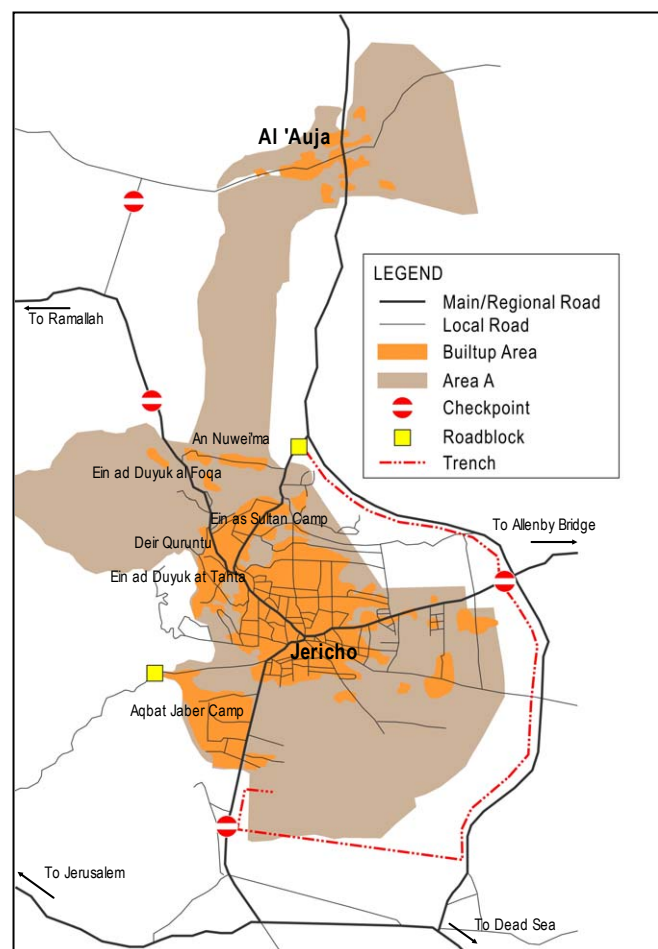
9.3 Improvement in the Urban Environment

As noted in Chapter 9.1, it is necessary to improve the urban environment and infrastructure in order to promote tourism development in Jericho city, as well as to ensure better amenities for the residents. Under the current situation, as analyzed in Annex 6, several constraints regarding the transportation network, wastewater treatment, and solid waste management are observed. This Section presents how to improve the urban environment in the Jericho area in particular.

9.3.1 Improvement in Transportation

The cities and villages in the Greater Jericho Area are connected by main and regional roads. Duyuk and Nuwei'ma are connected to Jericho city by a regional road without any obstacles, while travellers to Al' Auja are required to detour due to the roadblock and to pass checkpoints, as illustrated in Figure 9.3.1.

In Jericho city, the road network has been developed with radial and ring patterns. The radial roads form the basis of the urban structure, while the ring roads hardly play the function of trunk roads. According to a land use plan for Jericho city in 1988, the inner and outer ring roads were proposed from a development perspective. However, the inner ring road is not utilized as a trunk road but rather as a local road for access to land, buildings and facilities. Further, the outer ring road has not been completed due to unpaved road sections and lack of bridges across Wadi el-Qilt.



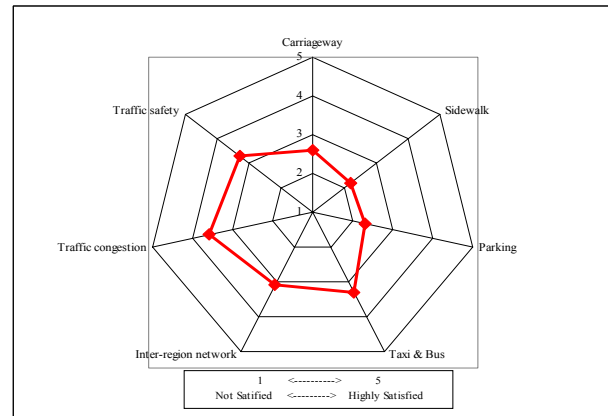
Source: JICA Study Team

Figure 9.3.1 Road Network in Greater Jericho

In terms of road condition, the main and regional roads are paved, while most local roads are unpaved (dirt roads). Some sections of the local roads are being paved by the Jericho Municipality funded by USAID. The total length is approximately 10 km.

(1) Issues to be Addressed in Transportation

The survey of the Jericho residents identified that the road and traffic condition is one of the most unsatisfying aspects of public services, as discussed in Section 9.1.1. The survey also clarifies that, among the services, conditions of sidewalks, parking and carriageways are the most urgent issues to be addressed, as shown in the figure.



Source: JICA Study Team

Figure 9.3.2 Requirements for traffic improvement

1) Traffic Congestion in the Jericho city Center

Traffic in the Palestine Square, which is located in the commercial center of Jericho city is inefficient and unsafe as evidenced by the chaotic traffic conditions. Although traffic police sometimes control traffic to provide smooth traffic flow, the problem is not completely solved. There are no road markings such as lane lines or zebra markings at the roundabout intersections. Due to the problem that the carriageways and parking spaces are not clearly divided in the roundabout, many vehicles are parking without restriction thus blocking the carriageways and taxis are using the roundabout as a taxi pool parking lot further restricting traffic flow. Further, there is a wholesale market which is one of the attractive places in the city center and it enjoys agro-business prosperity. To access the auction area in the market, a long queue along the trunk road is created by trucks and tractors carrying agricultural products in the morning. Truck and tractor drivers are waiting a long time. In addition, the existing wholesale market does not have sufficient parking spaces for trucks and tractors to load and unload fruits and vegetables.¹

2) Insufficient Road Network and Condition in Jericho city

In Jericho city, the paved radial roads with wider road widths play a vital role. On the other hand, most sections of the ring roads are narrow and unpaved. In addition, there are some sections missing and there is insufficient connectivity with the ring roads. As a result, the road network in Jericho city is not serving well for accessibility and mobility. Such an imbalanced road network between radial and ring roads is causing serious problems, so that all traffic concentrates toward the city center and creates heavy traffic congestion. There is no detour or alternative route. Further, bridges and culverts across Wadi el-Qilt and Wadi Nuwei'ma are defective due to erosion and scouring from floods.

¹ Since the buses are operated flexibly depending generally on passenger demand, the bus drivers only depart for their destination after enough passengers get on.

3) Inadequate Passenger Transport

The passenger transport for both intercity and inner city services is insufficient. Since there is no reliable passenger transport service except for taxis, the mobility and accessibility of the people are limited.

(2) Strategies for Transportation Improvement

Several strategies are proposed for the improvement of transport in Jericho city as outlined in the following.

1) Strengthening the Road Network in Jericho City

The road network in Jericho city should be strengthened by constructing a ring road which would contribute to desirable land use and urban development. As transport infrastructure, it would support socio-economic activities by solving or reducing traffic congestion in the center of Jericho city. In addition, in order to enhance the tourism sector, the ring road should be constructed as an alternate route to provide good access to tourism spots such as Hisham's Palace, Tell es-Sultan, Tel es-Samarat and the Herod's Palace. More efficient and harmonized urban and tourism development would be realized on the basis of the ring road.

2) Necessity of Traffic Management in Jericho City

Jericho city is an area where business and tourism activities concentrate. It is indispensable to provide smooth traffic flow for residential and business people, as well as to secure good mobility for tourists. To achieve desirable transport conditions, traffic management should be introduced from the following viewpoints:

To eliminate parking problems

Since there is a lack of parking spaces in Jericho city, the road shoulders, which are needed for use as pedestrian walkways, are now used as permanent parking spaces. On-road parking must be prohibited in the city center to create a pedestrian friendly environment for residents and tourists. It is necessary to construct public or private parking spaces near the city center for vehicles.

Improvement of bottlenecks

In order to provide smooth traffic flow and enhance traffic safety, the bottleneck points must be improved based on one-way travel, geometry improvement, road marking and traffic signs.

Improvement of the pedestrian environment

To secure good mobility for pedestrians, the pedestrian environment should be improved. To solve the chaotic traffic condition between pedestrians and vehicles, sidewalks must be improved. In addition, a pedestrian mall and street facilities (e.g., benches, lights, plants, information signs and dustbins) should be introduced to create attractive streets for pedestrians. These will contribute to tourism development for Jericho city.

3) Improving Wadi Crossings in Jericho City

From the viewpoint of safety during floods in the rainy season, it is necessary to provide sustainable transport infrastructure for wadi crossings. By ensuring all-weather access routes for Jericho city, the tourism and agricultural activities would be promoted.

4) Revitalization of Bus Transportation

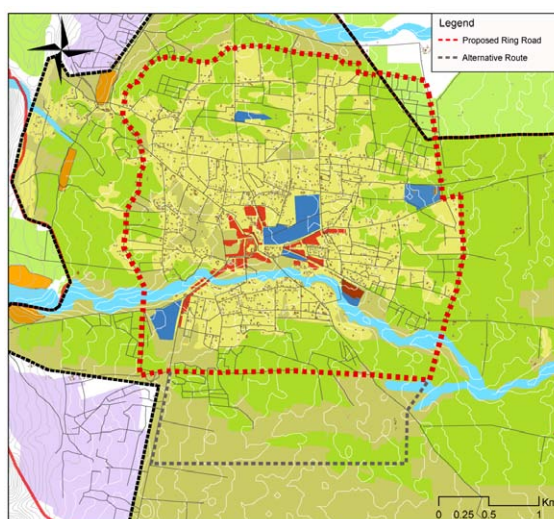
Before the Second Intifada, bus transportation played a significant role and was more attractive than shared taxis. Transport users have been shifted to shared taxi services since the Second Intifada, because buses require a longer inspection time at checkpoints and longer waiting time for departure². If and when the road restrictions are alleviated, bus service should be revitalized to take advantage of cheaper fares and higher capacity. To provide viable bus transportation services, technical and operational improvements should be made in order to ensure accessibility, comfort, convenience and reliability for all transportation users.

(3) Proposed Programs for Transportation Improvement

With the above strategies, several programs are proposed for transportation improvement to ensure a better environment for the residents and tourists.

1) Development of the Ring Road in Jericho

In view of the urbanized area, terrain and location of tourism spots, the alignment of the ring road is proposed as in the following figure. The ring road should run through major tourism spots in the north-western area and the Bridge Bus Terminal in the eastern area. The total length is about 12 km including two bridges across the Wadi al Qilt.



Source: JICA Study Team

Figure 9.3.3 Proposed Ring Road

² Since the buses are operated flexibly depending generally on passenger demand, the bus drivers only depart for their destination after enough passengers get on.

2) Traffic Management Program

Based on a site reconnaissance, the traffic management measures to be applied to Jericho city are proposed as summarized in the following table.

Table 9.3.1 Proposed Traffic Management Measures

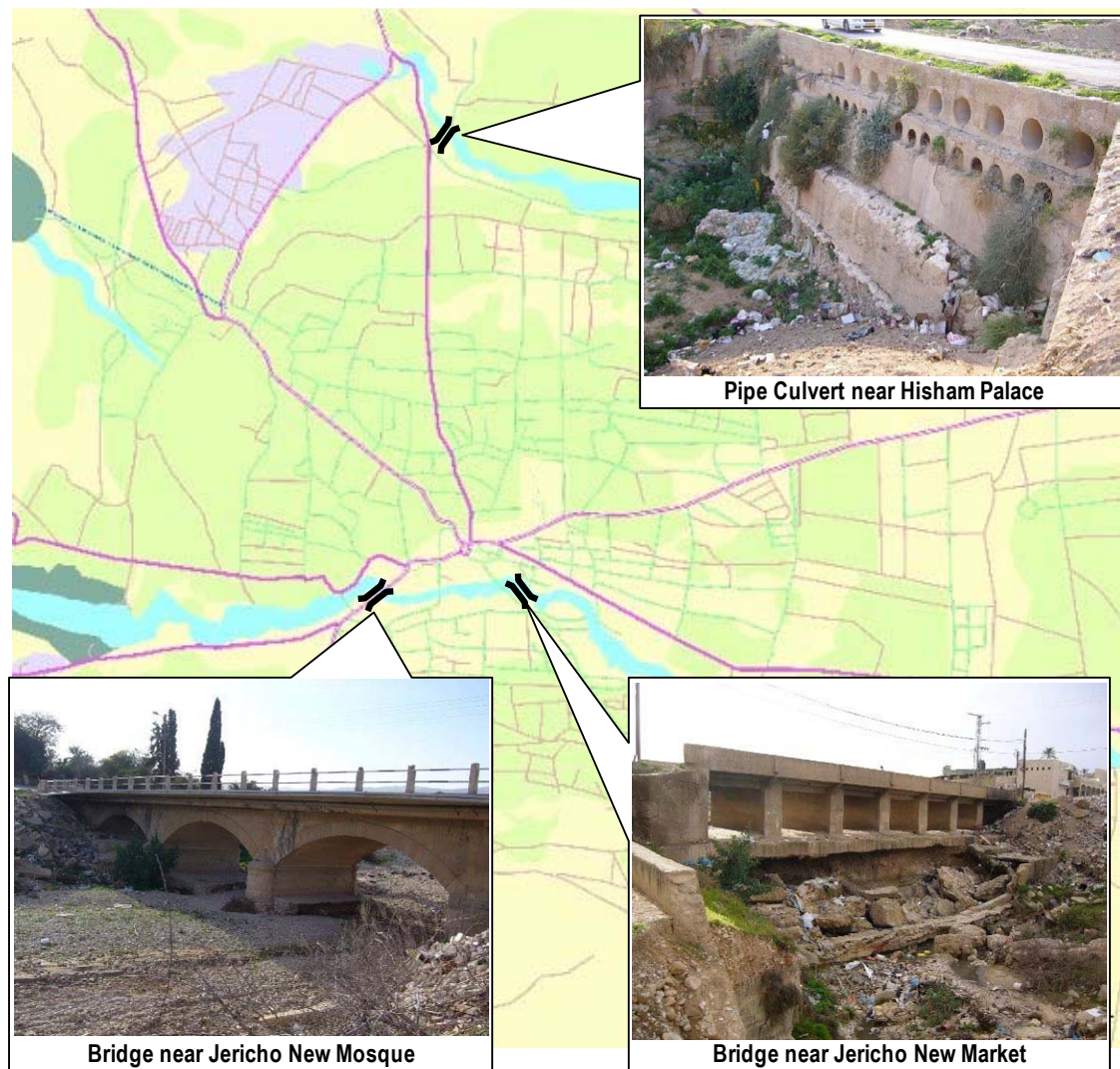
Area	Measures
Road	Improvement of sidewalks (widening, guardrails, and pavement)
	Installation of road marking (lane lines and pedestrian crossings)
	Installation of street facilities (plants, benches, dust bins and information signs)
	Consideration of traffic regulations (one-way streets and pedestrian malls)
	Installation of traffic signs (regulatory signs and guide signs)
	Parking control (no parking, free parking and paid parking)
Intersections	Geometric improvement
	Installation of Road marking (stop lines, pedestrian crossings, lane lines, directional arrows)
	Turning restrictions
	Installation of facilities such as curve mirrors and lighting

Source: JICA Study Team

In order to implement such traffic management measures, it will be necessary to conduct further studies which will include analysis of detailed traffic data, identification of traffic problems, formulation of solutions, and estimation of improvement costs.

3) Improvement of Wadi Crossings in Jericho

According to the site investigations, two bridges across the Wadi al Qilt and one pipe culvert across the Wadi Nuwei'ma have been critically damaged by flood erosion and scouring. Although the structure of the bridge near the Jericho New Mosque seems to have suffered no serious damage, erosion of abutments and piers, as well as deterioration of the concrete slab are observed. From the technical viewpoint, the bridge would require renovation to eliminate hazardous risks during floods and to ensure safe traffic flow as part of the trunk road running north and south. The bridge near the Jericho New Market and the pipe culvert near the Hisham's Palace have damaged riverbed structures on the downstream side. The necessary improvements, including riverbed treatment and slope protection, should be implemented.



Source: JICA Study Team

Figure 9.3.4 Bridge Location in Jericho City

4) Program for Bus Transportation Improvement

Effective Bus Routes

As illustrated in the following figure, routes of the passenger transport services will be divided into inter-city and feeder routes. Buses should be operated for inter-city routes establishing the proper role of bus service, while shared taxis will serve for feeder routes in the future. The inter-city routes for buses should be carefully redesigned to cover the cities and villages. In addition, the bus terminals, like the Bridge Bus Terminal in Jericho city, should enable bus transit to respond to the changing requirements. To achieve this, the bus operators should have some flexibility in deciding their routes based on the travel demand.

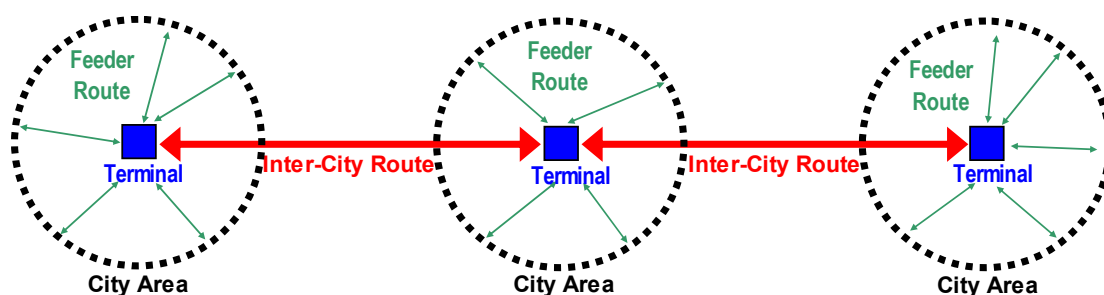


Figure 9.3.5 Concept of Bus Routes

Improvement in Bus Service

The bus service should be delivered with high frequency to attract more passengers. To achieve higher service frequency, it would be better economically for bus operators to employ the existing small and medium-size buses in the short term. In response to the increase in travel demand, bus operators should replace them with larger buses in the long term. Common facilities like bus stops, and bus shelters should be provided using public investment.

5) Summary of Transport Improvement Programs

The proposed programs are summarized in the following table, together with the indicative cost estimates:

Table 9.3.2 Summary of Proposed Transportation Improvement Programs

No	Project title	Objective	Expected Effect	Cost (US\$)
1	Development of Jericho Ring Road	<ul style="list-style-type: none"> - To promote urban and tourism developments, and - To alleviate traffic congestion in the city center. 	<ul style="list-style-type: none"> - To be improved access to tourism spots, - To trigger tourism development, and - To promote sustainable urban development. 	8.5M
2	Study on Traffic Management	<ul style="list-style-type: none"> - To clarify traffic problems and to show necessary traffic measures, and - To enhance the staff of the organizations responsible for traffic management. 	<ul style="list-style-type: none"> - To enhance mobility, accessibility and safety, and - To provide smooth traffic flow. 	1.0M
3	Improvement in Wadi Crossings in Jericho	<ul style="list-style-type: none"> - To provide safe traffic flow during floods, and - To protect against erosion during floods. 	<ul style="list-style-type: none"> - To eliminate hazardous risk during floods. 	\$4.0M
4	Study on Bus Transportation System	<ul style="list-style-type: none"> - Revitalization of bus transport, - To provide smooth transport for the people, and - To improve accessibility and mobility for the people. 	<ul style="list-style-type: none"> - Realization of bus transport service, and - To secure reliable transport service for commuters including agricultural laborers. 	1.0M

Source: JICA Study Team

9.3.2 Urban Solid Waste Management

(1) Issues to be Addressed in Solid Waste Management

Domestic waste, agricultural waste, agro-industrial waste, and medical hazardous waste are mainly disposed of in open dumping sites. The data on the quantity of solid waste generated in 1994 shown in the following table is all that is currently available. Open dumping sites are available, one in Jericho and two in Tubas district. There is an Israeli landfill site in the study area, but it is not used by Palestinians due to high charges for disposal. Solid waste is generally collected in plastic bags or metal containers using vehicles of the municipality or JCspd. Some vehicles and metal containers are broken and need to be repaired or replaced.

Table 9.3.3 Solid Waste in the Study Area (1994)

	Jericho	Nablus (including Tubas)
Domestic	28ton/day	300-333ton/day
organic	67.0%	87.0%
Paper	7.0%	1.5%
glass	6.0%	0.5%
plastic	17.0%	4.5%
aluminum	2.0%	0%
other	1.0%	6.5%
Agro-industrial (plastic)	250 ton/year	N/A
Medical Hazardous	2 ton/year	N/A
Population(1994)	21,500	333,295

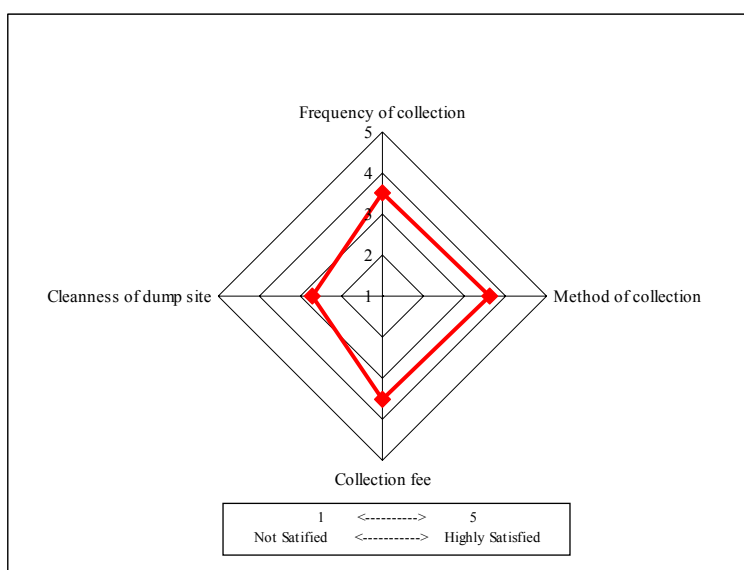
N/A: Not available

Source: Applied Research Institute (1997)

According to the survey of the Jericho residents, the current service level of Jericho municipality is generally unsatisfactory with regards to solid waste management.

Judging from the degree of satisfaction as shown in the figure, the most serious issue in solid waste management is the maintenance of the existing dumping site which remains in an unsanitary condition.

In order to improve the situation of solid waste management in the Jordan Rift Valley area, JICA has been extending technical cooperation in



Source: JICA Study Team

Figure 9.3.6 Issues on Solid Waste Management

“Capacity Development on Solid Waste Management in Jericho and Jordan River Rift Valley” since September 2005. This aims at establishing a model for solid waste management by the local authorities or JCspd in the region.

(2) Alternatives to Solid Waste Management Plans

A preliminary study has been made on some alternatives to the solid waste management plans contemplated by Jericho Municipality, JCspd and the related authorities, as they are related to the Study on the improvement of urban environment, as well as to the overall study on integrated regional development in the Jordan Rift Valley area.

1) Alternative to Landfill Site Planning

Urban solid waste generated from Jericho is currently disposed of at the landfill site along the Wadi Qilt without treatment. Although some improvements of the landfill site will be implemented at this site, a new landfill site should be prepared in the middle and long term, because of its capacity. Jericho Municipality is planning to construct a new landfill site (30 ha) in Area C located to the east of Jericho (development approval from Israel has been applied for). On the other hand, a landfill site has been operated by Israel for its settlements at a site located along Road 90. Solid waste generated from Jericho can be accepted by this landfill site at NIS 1,500/day (30 t).



Figure 9.3.7 Alternative Scenarios for Landfill Sites

Consequently, two alternative solutions are to be evaluated, i.e., Plan A to construct a new landfill site and Plan B to utilize the existing Israeli landfill site paying a relatively high charge. The PNA and Jericho Municipality are willing to construct a new landfill site under Plan A, and have requested approval from the Israeli government.

A detailed assessment should be made on the selection of the landfill site. In addition to the political issues, the following points are to be taken into account.

- (i) Regional environmental impact,
- (ii) Economic and financial aspects, and
- (iii) Stage-wise improvement.

From the viewpoint of the regional environment, utilization of the existing Israeli landfill site would be preferable as long as its capacity is sufficient to treat all the solid waste produced in the Jordan Rift Valley area, because the landfill site could be considered as highly sensitive in terms of the environmental load. However, the reliability of depending on the existing landfill site should be assured as the frequent closure at checkpoints could seriously affect the reliability of utilization by the Palestinian people.

From the economic and financial viewpoints, utilization of the existing Israeli landfill site would be more economical and viable as there is no need to invest in construction. A preliminary evaluation shows that the per capita household expenditure would amount to US\$147/year for depreciation cost and O&M cost in the case of the new landfill construction under Plan A. On the other hand, the cost per household for utilization of the existing Israeli landfill site would amount to US\$46/year. For reference, the current cost per household is estimated to be US\$33/year.³

In fact, the construction of a new landfill site would take a longer period in the required processes such as approval by the Israeli government, environmental impact assessment, and design and construction works. In view of the lead time required for the new landfill site, a stage-wise improvement plan would be necessary. On this point, it is conceivable that the existing Israeli landfill site would be utilized on a provisional basis until realization of the new landfill site in Area C. This option would be the best solution to minimize the environmental impacts on the region, as well as to reduce financial burdens to the Palestinians.

2) Alternative to Reduce Solid Waste by Composting

Composting is one of the effective ways to reduce the quantity of solid waste for disposal. The extent of cost reduction has been estimated to see how composting is effective in solid waste disposal.

Generally, composting is put into practice at the waste generating sites (each household) and at the waste disposal site. As recommended in Chapter 7.4, composting is to be promoted at each household and

³ Refer also to Annex 6.

community to the utmost extent as a community based development program. On the other hand, composting at the disposal site will be executed in a more collective way with additional investments.

A preliminary study has been made on the cost reduction from the collective composting at the landfill site. A preliminary cost estimate was made based on the preconditions that organic solid wastes are produced at 21t/day and recyclable volume is 50% of generated organic waste (10.5t/day), as well as the assumed construction and operation costs.

Because less organic solid waste will be generated if composting is practiced, it will contribute to the cost reduction of solid waste treatment. The cost of solid waste management is estimated to be around US\$343,500 per annum without composting and US\$328,500 per annum with composting.

In the event that such costs are charged to each household, the annual cost for each household would be decreased slightly from US\$46 per household per annum to US\$44 per annum.

The preliminary study above shows that composting will be effective for cost reduction in solid waste management, though it is a relatively small amount. More important is the reduction in usage of chemical fertilizers to prevent soil contamination in the region.

It should be noted, however, that careful attention should be drawn to quality control in the promotion of composting. Contamination will lower the quality of the product. In particular, contamination with medical hazardous waste in the organic solid waste must be prevented. In addition, separate waste collection should be promoted for effective composting. In this context, environmental education and public awareness for separate disposal and collection should be conducted as early as possible.

3) Alternative to Reduce Solid Waste by Recycling

A large volume of plastic materials are generated from drip irrigation and greenhouses and they are currently disposed of without treatment, causing some problems in farming, as well as constraints on the regional environment and landscape. Therefore, recycling of these plastic materials into a basket of agro-products or box pallets for planting should be promoted.

A study on the economic feasibility of a recycling plant for agro-industrial waste is beyond the scope of this Study. It is recommended that such a study be conducted at the earliest possible time so that the quantity of solid waste to be disposed of at the landfill site would be further reduced. Desirably, the Study would be made along with the installation of a pilot plant for demonstration and verification of the effectiveness of this alternative to reduce solid waste by recycling.

9.3.3 Wastewater Treatment

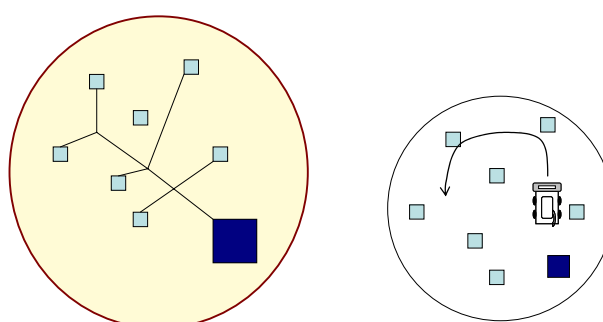
(1) Issues to be Addressed

Generated volumes of wastewater from Jericho and Tubas are estimated to be approximately 3,600 m³/day and 4,800 m³/day, respectively. All generated wastewater is currently discharged into the environment without treatment. Some wastewater is collected using vacuum cars owned by the

municipality or private companies, but the collected wastewater is discharged into wadis because there is no treatment plant in Jericho or Tubas. Untreated wastewater discharge is one of the most serious problems of surface and groundwater pollution. Therefore, establishment of complete wastewater treatment systems should be implemented for the protection of the urban and regional environment.

(2) Alternatives for Wastewater Treatment

For the improvement of wastewater treatment in the municipalities, two alternative systems have been compared, as shown in the following figure.



Plan	Plan A: Sewer Line System Sewer Line + Wastewater Treatment Plant (WWTP)	Plan B: Vacuum Car System Vacuum Car + Wastewater Treatment Plant (WWTP)
Population (Assumed number of households)	Jericho: 30,000 (7,500) Tubas: 40,000 (10,000)	
Generation of waste water	Jericho: 3,600 m ³ /day Tubas: 4,800 m ³ /day (All generated waste water)	Jericho: 180 m ³ /day Tubas: 240 m ³ /day (Waste water from toilets)

Source: JICA Study Team

Figure 9.3.8 Alternative Systems for Waste Water Collection and Treatment

The preconditions of the preliminary cost estimation of the two alternatives are shown in the following table.

Table 9.3.4 Preconditions for Cost Estimate

Population: 30,000 (Jericho), 40,000(Tubas)	
Average number of households 7,500 (Jericho), 10,000 (Tubas)	
<u>Plan A</u>	<u>Plan B</u>
Jericho:	Jericho:
Capacity of WWTP: 3,600 m ³ /day	Capacity of WWTP 180 m ³ /day
Construction Cost (Sewer Line) 2,916,000 US\$	Capacity of cesspits 6 m ³
(WWTP) 6,480,000 US\$	Present installation ratio of cesspits 10%
Operation cost (Sewer Line) 233,280 US\$/year	Capacity of a vacuum cars 6 m ³
(WWTP) 518,400 US\$/year	Number of trips 10 trip/vehicle/day
	Number of required vehicles 3
	Number of existing vehicles 3
	Construction Cost (WWTP) 200,000 US\$
	(Cesspits) 370 US\$/cesspit
	Operation Cost (WWTP) 16,000 US\$/year
	(Cesspits) 29.6 US\$/cesspit/year
	(Vacuum Cars) 20,420 US\$/car/year
Tubas:	Tubas:
Capacity of WWTP 4,800 m ³ /day	Capacity of WWTP 240 m ³ /day
Construction Cost (Sewer Line) 3,888,000 US\$	Capacity of cesspits 6 m ³
(WWTP) 8,640,000 US\$	Present installation ratio of cesspits 10%
Operation cost (Sewer Line) 311,040 US\$/year	Capacity of a vacuum cars 6 m ³
(WWTP) 691,200 US\$/year	Number of trips 10 trip/vehicle/day
	Number of required vehicles 4
	Number of existing vehicles 2
	Construction Cost (WWTP) 450,000 US\$
	(Cesspits) 370 US\$/cesspit
	(Vacuum cars) 185,000 US\$
	Operation Cost (WWTP) 16,000 US\$/year
	(Cesspits) 29.6 US\$/cesspit/year
	(Vacuum Cars) 20,420 US\$/car/year

Source: JICA Study Team

Based on the above preconditions, the costs for the 10 year period up to 2015 have been estimated as summarized in the following table.

Table 9.3.5 Estimated Cost of Wastewater Treatment Systems

Cost	Item	Jericho		Tubas	
		Plan A	Plan B	Plan A	Plan B
Construction Cost	Sewer Lines	2,916,000	-	3,888,000	-
	Tanks	-	2,497,500	-	3,330,000
	Vacuum Cars	-	0	-	185,000
	WWTP	6,480,000	200,000	8,640,000	450,000
	Sub Total	9,396,000	2,697,500	12,528,000	3,965,000
Operation Cost	Sewer Lines	2,332,800	-	3,110,400	-
	Tanks	-	1,998,000	-	2,664,000
	Vacuum Cars	-	612,590	-	816,780
	WWTP	5,184,000	160,000	6,912,000	360,000
	Sub-Total	7,516,800	2,770,590	10,022,400	3,840,780
Total		16,912,800	5,468,090	22,550,400	7,805,780
Cost per year		1,691,280	546,809	2,255,040	780,578

Source: JICA Study Team

If the above estimated costs are charged to each household, the annual cost for each household is calculated as shown in the following table (for Jericho). For reference, the current cost of wastewater is NIS 10/m³, or around US\$ 19.1 per household per year.

Table 9.3.6 Wastewater Treatment Cost per Household in Jericho

Plan	Cost per year (US\$)	Number of Households	Cost Burden for a Household (US\$/year)	Cost as a proportion of the average income (%)
Plan A (all costs will be covered by collection fees)	1,691,280	7,500	225.5	3.1
Plan A (construction cost will be covered by donations, operation costs will be covered by collection fees)	751,680		100.2	1.4
Plan B (all costs will be covered by collection fees)	546,809		72.9	1.0
Plan B (construction costs will be covered by donations, operation costs will be covered by collection fees)	277,059		36.9	0.5
Current			19.1	0.3

Source: JICA Study Team

The above cost estimates suggest that Plan B would be more economical. The cost per household would increase from US\$ 19.1 to US\$ 72.9, annually. If construction cost is covered by grant aid, the cost per household would be US\$ 36.9.

Affordability of additional charges for households should be assessed, in addition to a detailed plan and a more accurate cost estimate. It is therefore recommended that a feasibility level study be conducted on the improvement of the wastewater treatment system in Jericho city at the earliest possible time for the protection of the urban environment, both for the residents and for tourists to visit and stay in a better environment.

It is noted that the wastewater treatment system will not only contribute to the prevention of water pollution, but also create new water resources for agricultural purposes. To secure water resources with an integrated water management system is one of the most important issues to be addressed in the integrated regional development plan. Development of a recycling system to extract water from a wastewater treatment system would play a vital role in supplying agricultural water in the future.

9.4 Implementation Plan for the Urban Environment Program

The implementation plan for the Tourism and Urban Environmental Program has been developed based on the regional development strategies, taking into account the assessment of the people's needs, sector analysis, and discussions with stakeholders at the working group meetings.

The program components are illustrated in the following table and figure.

Table 9.4.1 Implementation Schedule for the Urban Environmental Program

Strategy	Project	Main implementation agency	Project Priority	Project Cost (M&US\$)	Implementation Schedule												
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016-		
Strategy-3(2) Transportation Network Improvement	U1 Rehabilitation of 3 bridges in Jericho city	Jericho city / MoPW	B														
	1) Design for new bridges and access road to bridge																
	2) Construction of 3 bridges																
	U2 Improvement of tourism access road	Jericho/ MoPW / MoTA	B														
	1) Access road to Hisham's Palace improvement																
	2) Access road to King Herodeon Winter Palace improvement																
	3) Access road improvement along Wadi Qait																
	U3 Ring Road Development for Jericho city	Jericho/ MoPW	B														
	1) Formulation of spatial plan and land use plan along the ring road route																
	2) Design of ring road and new city administration center and residential area																
	3) Construction of Ring Road																
	U4 Strengthen Traffic Management	MoT / Jericho	B														
	1) Review of traffic regulation and parking control measures																
	2) Installation of traffic sign and facilities at intersections																
	U5 Improvement of Bus Transportation Service	MoT / Jericho	C														
1) Review of public bus service network in and inter city																	
2) Establishment of bus service system including operation and management body																	
3) Development of bus terminal and bus stations network																	
4) Procurement of small and midium size buses for services																	
U6 Improvement of solid waste collection network	MoLG /Jericho/EQA	A															
1) Cleaning campaign of garbages along the street																	
2) Review on garbage location network and increase of garbages																	
3) Development of education material for 3R activities for schools																	
4) Technical assistance on composting and pilot recycling plant demonstration																	
5) Implementation of periodical cleaning campaign of garbages along the street																	
6) Procurement of garbage collection vehicle and establishment of O&M system																	
U7 Improvement of existing landfill site	MoLG/Jericho / EQA	B															
1) Detail study on environmental condition on existing dumping area																	
2) Design of improvement of dumping site																	
3) Procurement of equipment on operation and maintenance of dumping site																	
4) Implementation of improvement works																	
5) Establishment of operation and management system of existing dumping site																	
6) Development of garbage transportation system from inside landfill site to Israeli dumping area																	
U8 Construction of waste water treatment plant	PWA / Jericho/ EQA	A															
1) Detailed Design of waster water treatment plan, collection network and recycling water use network																	
2) Construction of Waste water treatment plant																	
U9 Construction of sewerage collection network system	PWA / MoPW / Jericho	B															
1) Detailed design of trunk sewerage line and branch line network																	
2) Construction of trunk sewerage line connecting refuge camps, city centers and treatment plant																	
3) Procurement of waste water collection vehicles and establishment of O&M system																	
U10 Development of water recycling system for irrigation water	PWA / MoA / Jericho	C															
1) Distribution network system plan for recycling water for planting and irrigation																	
2) Establishment of demonstration farm for utilization of recycling water (for tree crops)																	
3) Development of recycling water distribution network along wadi and street green belt																	

Source: JICA Study Team

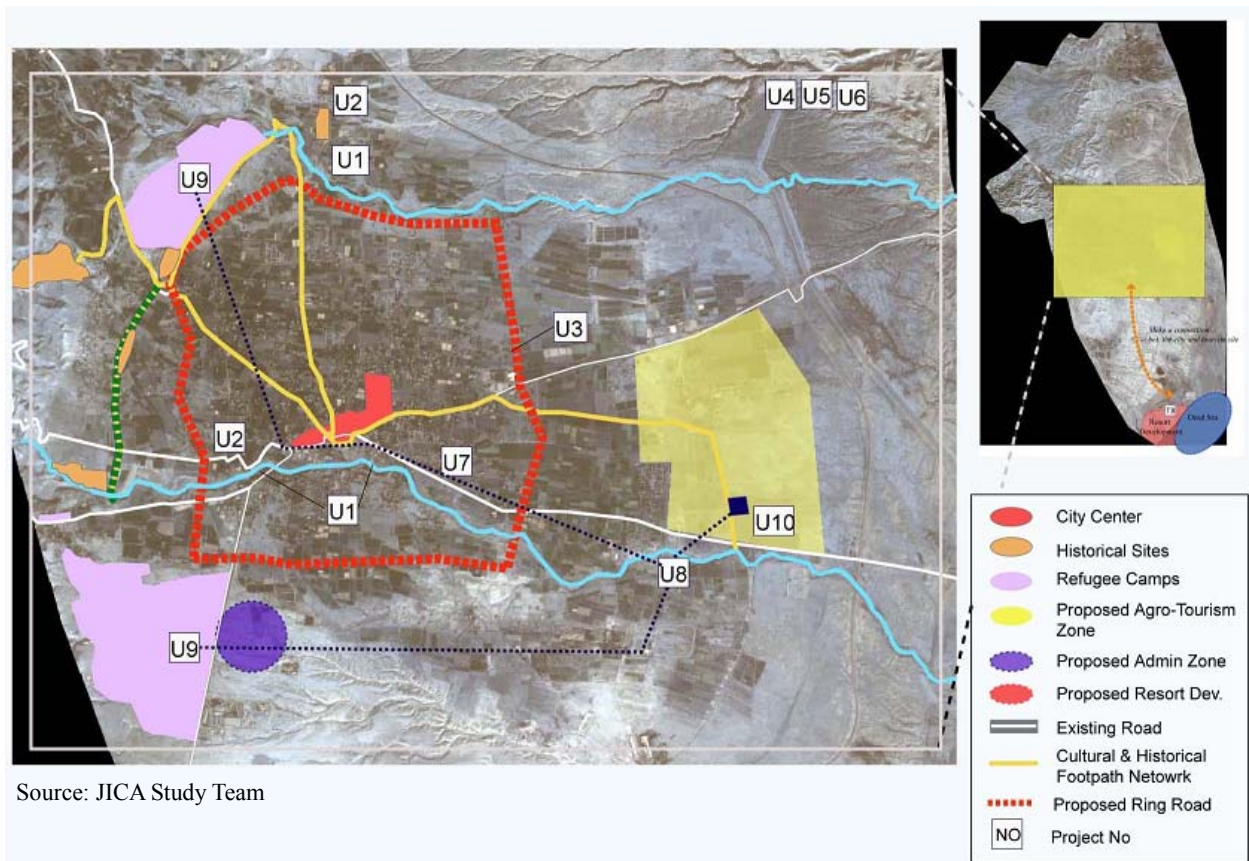


Figure 9.4.1 Location of the Urban Environmental Program

CHAPTER 10. CONCLUSIONS AND RECOMMENDATIONS

10.1 Conclusions

- 1) The Regional Development Master Plan for the Jordan Rift Valley area, targeting the year 2015, has been formulated, highlighting the regional uniqueness as well as regional strengths, weaknesses, opportunities and threats. A number of development projects have been programmed and proposed to realize the three objectives of Jericho Regional Development, i.e., (i) enhancement of the people's living conditions, (ii) promotion of the regional economic activities, and (iii) preservation of the cultural and environmental values of the region.
- 2) Despite the hardships and instability prevailing in the West Bank and Gaza at the moment, the people in the Jordan Rift Valley area are capable of implementing the development projects unless security conditions in the region are aggravated. The proposed projects and programs are to be implemented through collaboration and cooperation of all stakeholders in the region, inclusive of private, public and academic circles, as well as NGOs. They cannot be implemented without collaborative efforts among the stakeholders. Further, their implementation could be managed in a more practical and democratic manner if technical advisory services are provided by third countries.
- 3) A participatory planning approach has been applied to this Master Plan Study, though it is a quite new approach to planning at the national level. This approach has proved to be effective for plan formulation, particularly for consensus making among various groups of different interests and opinions. The participatory approach is also effective for project implementation, as it has been proven through the execution of three quick impact projects operated in the course of this Study. The people in the region are much more motivated and responsible through their participation in the regional development activities. It is encouraging that women in the region are eager to have opportunities to meet and exchange information among themselves for collaboration and cooperation.
- 4) The participatory approach and collaborative efforts among stakeholders are also effective for the promotion of democracy at the community level as well as at the regional level. Participants are invited to freely express their opinions, and once a consensus is reached, they will assume their responsibility jointly and severally for the execution of the development works that they formulated themselves. Such a democratic approach will also lead to confidence building at the community and regional levels, which has been set as a supreme objective of Jericho Regional Development.
- 5) In the event that the projects and programs are fully implemented as proposed in this Master Plan for Jericho Regional Development, the macroeconomic framework with a high growth scenario would become attainable. For instance, agricultural development has been programmed to double its gross

margin on the currently cultivated land by applying water saving cultivation practices. Even if some restrictions remain in the region, a moderate growth scenario would be attained as long as internal development efforts are well managed and external supports are extended for the implementation of proposed projects and programs. The number of tourists and visitors to Jericho would be more than double the level of the pre-Intifada period, provided that the security situation in the region is assured.

6) Proposed development of agriculture and tourism would have a significant impact on employment and other social conditions in the Jericho and Jordan Rift Valley area. For instance, the requirement for employed workers in crop cultivation would increase from 7.0 million man/hours under the current cropping pattern to 9.2 million man/hours under the proposed cropping pattern with water saving agriculture. Likewise, employed workers for agricultural machineries would increase from 119,000 man/hours to 163,000 man/hours. It would be equivalent to additional employment of about 3,000 persons in the cultivation of agricultural products. Further, the employment in the tourism sector is estimated to be 6,700 persons under the moderate growth scenario in 2015. Employment opportunities would also be increased in other sectors related to agriculture and tourism. The unemployment rate (23.8% in the West Bank in 2003) will no doubt be improved with the implementation of the proposed programs.

7) Resources in the Jordan Rift Valley area are relatively limited. Land and water resources are limited under the current situation, and human resources and social capital are still limited. The limited land and water resources should be utilized to their utmost extent by applying advanced technologies and practices inclusive of water saving agriculture, minimization of water losses, water harvesting and reuse, as well as rehabilitation of the existing facilities. Capacity building at every level is needed to implement the projects and maximize their outputs. Social capital should also be enhanced through mutual trust and collaborative works in the recognition that the lone individual is unable to face competition in the global markets.

8) Under the Master Plan, three programs are proposed in an integrated form, i.e., (i) social and community development program, (ii) agriculture and agri-business development program, and (iii) tourism and urban environment program. It should be recognized that the proposed projects are not only integrated into the respective program due to their inter-relation and common target, but they are also linked with other projects in different programs. For instance, the income generation activities proposed under the social and community development program are closely related to the projects proposed in the agricultural and agribusiness program. Agriculture and agribusiness development will also support tourism development, providing fresh and processed products to tourists and visitors. In the event that linkages among projects under the three proposed programs are promoted, the Jordan Rift Valley area could be developed as a cluster, as set out under the regional development strategy.

9) The proposed Master Plan has confirmed the roles and significance that cross-boundary cooperation would play, particularly between Palestine, Jordan and Israel. Agriculture, tourism and other economic sectors could be developed more effectively under a regional cooperation framework. It is not an

exaggeration to say that Jericho Regional Development is largely dependent on the extent of confidence building and resultant cooperation among the people in the region. In this context, too, Jericho Regional Development should be implemented as a confidence building measure and it should propagate initiative in regional cooperation and peace building.

10.2 Recommendations

- 1) Despite various hardships prevailing in the Jordan Rift Valley area at the moment, the people and public institutions are expected to firmly commit themselves to act for their community and region to the maximum extent possible, as experienced in the quick impact projects executed in the course of this Study. To this end, it is recommended that collaborative work be promoted at the community and village levels, as well as at the regional level. Such collaborative work should better be promoted for income generation activities forming a community-based organization. The private sector is also encouraged to form associations to enhance the competitiveness in production and marketing, as well as to secure cooperation of their counterpart associations in the neighboring countries for their business promotion.
- 2) Efforts of the private and public sectors should be well integrated and coordinated for economic and social development in the Jordan Rift Valley area. In this context, it is recommended that a regional development institute be set up as early as possible. As proposed in this Study, an alternative is to set up a Regional Council based on the current JCspd and it could be expanded to cover all the development activities in the region. Likewise, activities of NGOs should be networked so that their activities are effectively integrated into the regional development efforts.
- 3) The execution of this Study, in fact, has suffered from the shortage of data and information available in the region. There is no updated census available, nor GRDP data. As far as the security situation permits, it is recommended that some surveys be conducted to obtain basic data and information concerning the social and economic settings of the people and entities in the region. Such updated data will enable a more accurate assessment of the existing situation and projections for the future.
- 4) All available data and information related to social and economic development should be open and accessible to the public and disseminated widely in the region. The data and information laboriously collected in the course of this Study will therefore be kept open to the public. In this relation, it is recommended that a resource center be set up in the region where all development data and information are compiled as databases and interested parties can easily access the information available at the resource center. Integration into a GIS database, which is currently managed by respective ministers and institutions, should also be promoted for further study and planning. Such information should include the activities and outputs of the assistance and cooperation by donors and NGOs, as well as the rules and regulations in force for development activities.
- 5) Due to the unexpectedly changing situation, a Regional Tourism Promotion Workshop originally planned for execution in the course of this Study has not been realized. It is recommended that such a workshop to promote regional cooperation and confidence building be held through the initiative of

Jericho at an appropriate time, inviting the tourism related institutions and authorities in Palestine, Jordan and Israel. Such a workshop should not be limited to the tourism sector, but could be extended to the environment and other development related sectors of mutual interest in this region.

6) The people and authorities in the region are encouraged to continue to meet their challenges for social and economic development of the Jordan Rift Valley area, as well as in other regions in the West Bank and Gaza. It is expected that this Master Plan for Jericho Regional Development will serve as a model for integrated regional development planning in other regions. It is therefore recommended that this Master Plan be referred to in formulating the integrated regional development plans of other regions in the West Bank and Gaza in the near future.

7) The Master Plan for Jericho Regional Development has been formulated on the basis of the limited data available, as well as under the current unsteady conditions in the West Bank and Gaza. As further data might be accumulated and the situation surrounding the Jordan Rift Valley might change, it is therefore recommended that the proposed Master Plan be reviewed and updated after about three years or in/around 2010. Such a revision and update would be made more effective if it is harmonized with the integrated development plans to be formulated in other regions of the West Bank and Gaza.