

2.3.2 Land use distribution

The future land use by class is estimated as summarized in Table 2.5. The estimate by land use class is outlined below, and the land use plan is shown in Figure 2.13.

Table 2.5 Planned Land Use Distribution

	Zone A		Zone B		Zone A+B	
	(ha)	(%)	(ha)	(%)	(ha)	(%)
Residential	17.03	59.94%	9.42	30.42%	26.45	44.54%
Educational	1.70	5.98%	3.72	12.01%	5.42	9.13%
District Service	1.40	4.92%	0.93	3.00%	2.33	3.92%
Commercial	0.64	2.25%	0.99	3.20%	1.63	2.25%
Industrial	0.00	0.00%	3.03	9.78%	3.03	5.10%
Green						
park	3.19	11.23%	1.75	5.65%	4.94	8.32%
High voltage	0.00	0.00%	5.86	18.92%	5.86	9.87%
Road	4.45	15.66%	5.27	17.02%	9.72	16.37%
Total	28.41	100.00%	30.97	100.00%	59.38	100.00%

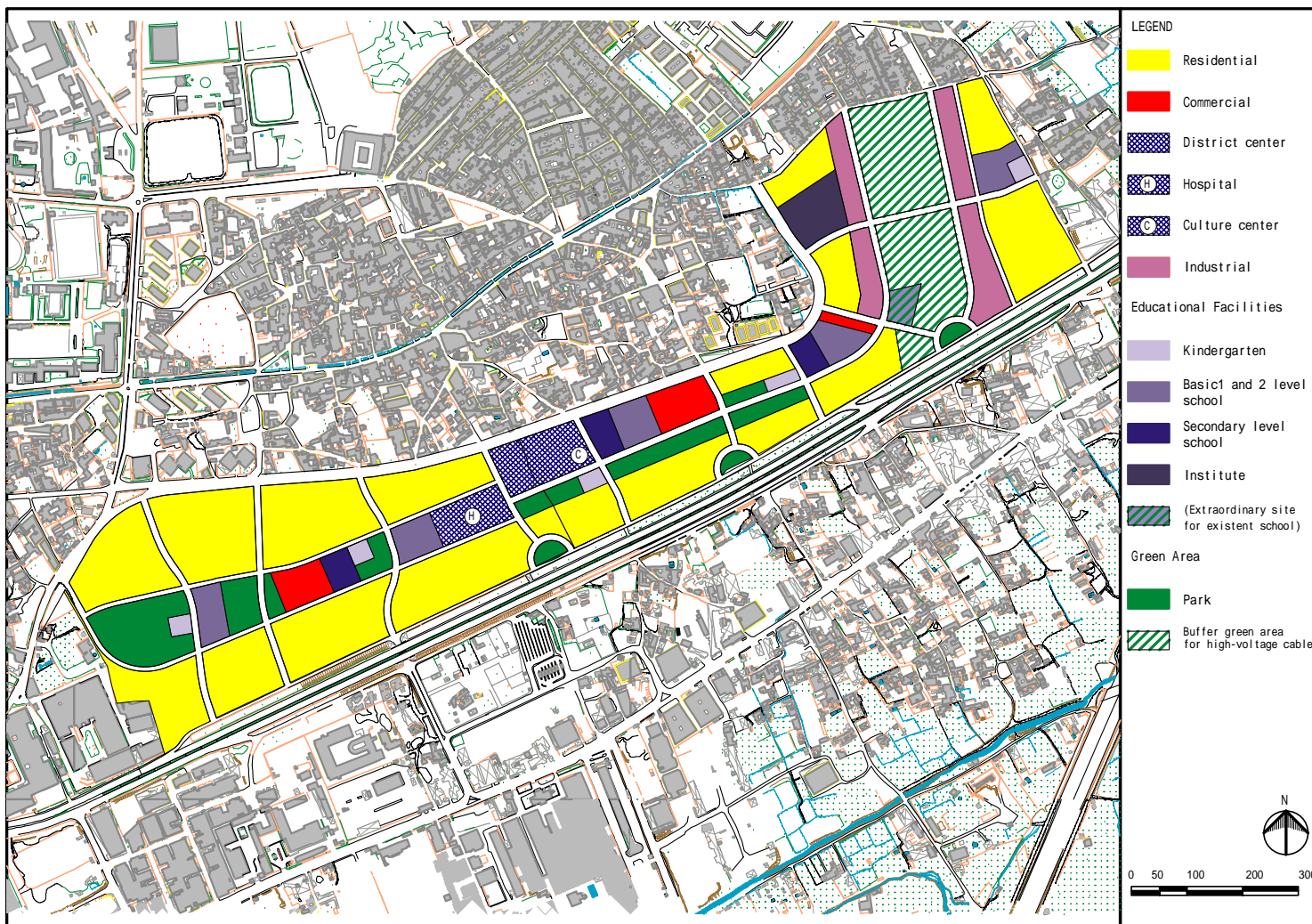


Figure 2.13 Land Use Plan for the Project

(1) Residential area

For the planned population of 23,800, the land area of at least 21.7ha is required at the floor area ratio of 1.80, even if the same housing standard of 16.4m² as the present is assumed. The area of 26.45ha is allocated by the plan. Tentative building layout corresponding to this plan is shown in Figure 2.14 and Figure 2.15.

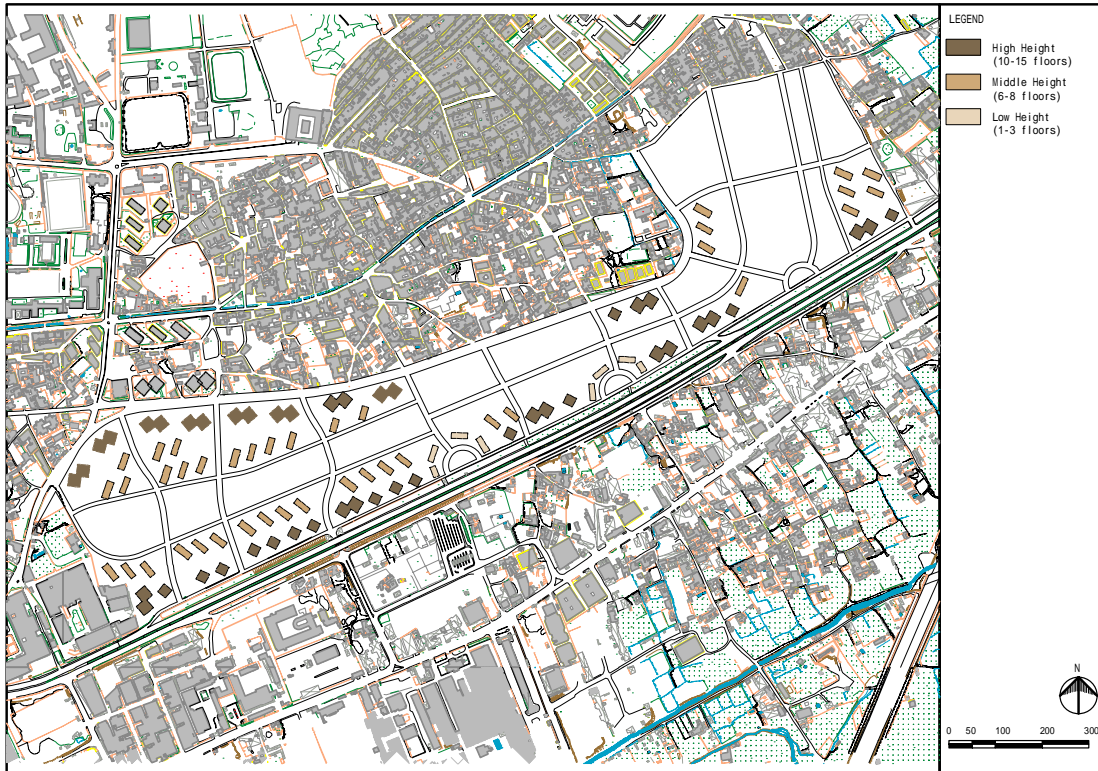


Figure 2.14 Building Layout (tentative plan)

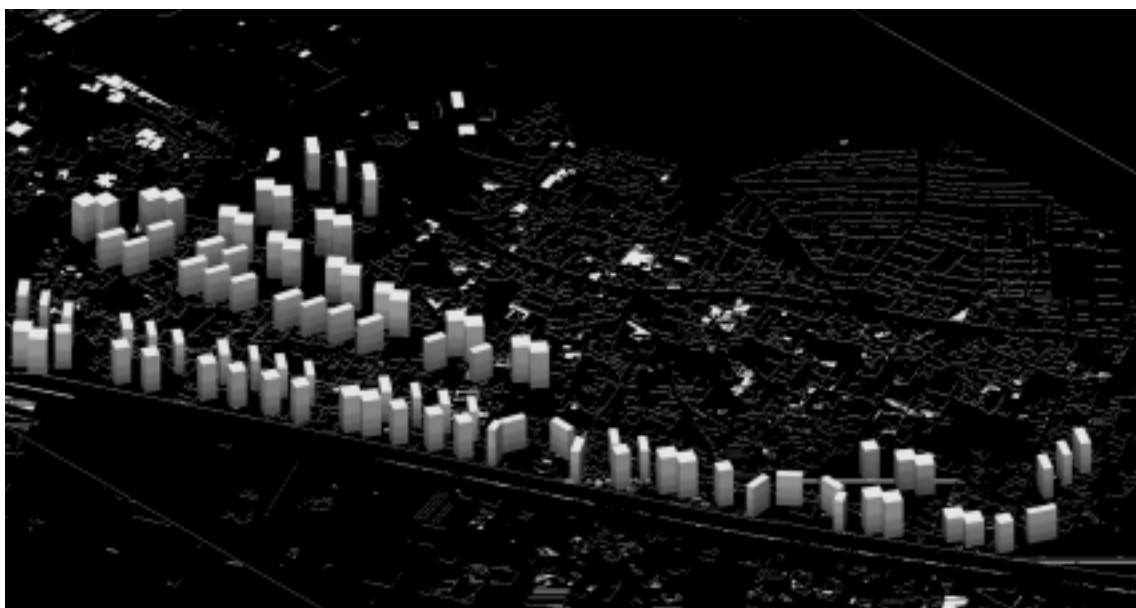


Figure 2.15 Perspective of the Project Development

(2) Education facilities

At present, there are only two schools in the area: the Qaboun El mohadatha school for Basic 1 level (23 classes), and the Taha Hussein school for Basic 1 and 2 levels. The first school is in a new building and is expected to be maintained for the time being. The school location is designated for public utilities and the school may be relocated in the future. The second school is expected to be replaced by a modern school building under the project. There are no kindergartens or schools at the secondary level.

The number of new schools required for the projected future population is estimated to total 18, which will require a total land area of 4.38ha. The estimation is summarized in Table 2.6.

Table 2.6 Planning for Educational Facilities

Item	Unit	Education Level				Total
		KG	Basic 1	Basic 2	Secondary	
1) Share of population	%	8%	10%	11%	7%	36%
2) Enrollment level	%	50%	100%	100%	100%	---
3) Student number	Student	952	2,380	2,618	1,666	7,616
4) Total Classes required ⁽¹⁾	Class	30	60	75	48	222
5) New Schools required	School	5	5	5	3	18
6) Total Area requirements						
(1) Total Building ⁽²⁾	m ²	7,560	15,120	21,600	13,824	58,104
(2) Total Playground ⁽³⁾	m ²	3,240	6,480	10,800	6,912	27,432
(3) Number of floors/school	Floor	2	4	4	4	---
(4) Total Site requirement ⁽⁴⁾	m ²	7,020	10,260	16,200	10,368	43,848
7) Area requirement per school						
(1) Building area each school	m ²	1,512	3,024	4,320	4,608	---
(2) One floor area	m ²	756	756	1,080	1,152	---
(3) Playground area each school	m ²	648	1,296	2,160	3,456	---
(4) Area required per school (playground + one floor)	m ²	1,404	2,052	3,240	3,456	---
Notes: 1) 36 students per class, 2) 7m ² per KG and B-1 student and 8m ² per B-2 and Secondary student, 3) 3m ² per KG and B-1 student and 4m ² per B-2 and Secondary student, 4) [(1)/(3) + (2)]						

(3) Buffer zone for high voltage power lines

The high voltage power lines are scattered in the eastern part of the project area. The plan proposes its integration and concentration, and the provision of 40m green bands on both sides of the future lines.

(4) Green parks

Including the greenery along the high voltage power lines, the green areas will cover 18.2% of the project area. This corresponds to 4.54m² per resident. It is disputable if the greenery along the high voltage lines may be regarded as public green space, but it is suggested here to be included in the public green space.

(5) Industrial land

New sites will be prepared for the existing garages in the eastern part of the area facing the high voltage line green area. The planned area covers 3.03ha, which corresponds to 53% of the current commercial and industrial site.

(6) Public service facilitiesHealth facilities

The Al Qaboun service department as a whole does not have sufficient health facilities at present, and the Master Plan has estimated that a hospital with 200 beds and six primary health care facilities (PHCFs) would be required for the department by 2025. Due to the space to be made available by the project, it is proposed to construct the hospital in the project area as well as one PHCF required for the planned population. The estimate of these facilities is summarized in Table 2.7.

Table 2.7 Planning for Health Facilities

No.	Item	Unit	Total Site area (m ²)	Total floor area (m ²)
1	Hospital (200 beds)	1	8,100	3,600
2	Primary Health Care Facility	1	400	600

Culture centers

Four new culture centers are proposed by the Master Plan in the service departments where high population growth rates are expected. One of the departments is Qaboun. The facilities of the culture center to be located in the project area are described Table 2.8.

Table 2.8 Planning index of educational facilities

No.	Item	Total Site area (m ²)	Total floor area (m ²)
1	Culture Center (includes hall with 350 seats, library, 2-3 rooms for Peoples' Cultural Institute, internet hall and administration rooms)	1,350	1,800

Other service facilities

In addition, areas for a total of 3.0ha are planned for district service facilities and commercial shops. These areas will be used to relocate existing shops and future service facilities such as public parking, and district office of the governorate.

(7) Transport facilities

The demand for car parking is estimated based on the planned population and the car ownership ratio in the future. The car ownership ratio was 87.7 cars per 1,000 persons in 2004 in the Damascus city. The ratio in Syria increased at the annual average rate of 5.28%

during 2001-05. The car ownership ratio is assumed to increase to 258 vehicles per 1,000 persons by 2025. Applying this ratio, the parking demand for residents is estimated to be 3,369 in 2025. The demand for commercial vehicle parking is estimated at 2,868 based on the number of employees during daytime, estimated to be 6,510 in 2025, and commuting vehicles attraction ratio of 2.27 employees per vehicle per day in the Damascus city center.

2.4 Implementation Plan

2.4.1 Procedure towards implementation

The planning for the Qaboun informal settlement formalization project started from a community workshop, and additional workshops were organized during the planning process. It is important to continue this process with consultation for further planning and implementation of the project. A general procedure up to the completion of the project is shown in Figure 2.16.

Following this study, the plan should be further elaborated and the site for first phase development determined based on the agreement among the residents. A private developer should be selected through an appropriate process to implement the first phase. The steps to be taken are explained below.

(1) Organizing a preparatory committee

A formal committee should be organized, consisting of representatives of the administration and residents, which will become the main promotion body for the project. Objectives, components, implementation schedule with steps to be taken, roles of each participant, and other related matters should be discussed and determined at the committee.

(2) Public announcement of the project

The project as planned should be known to all the residents in the project area. Both public hearings and exhibitions should be prepared to ensure the public acceptance for the project. The plan may be modified reflecting the opinions and ideas of residents.

(3) Establishment of implementation committee for each block

The project is expected to be implemented by block. A detailed plan should be prepared for each block and discussed in a small committee. A higher level committee should also be organized by the representatives of the block-wise committees to coordinate their activities.

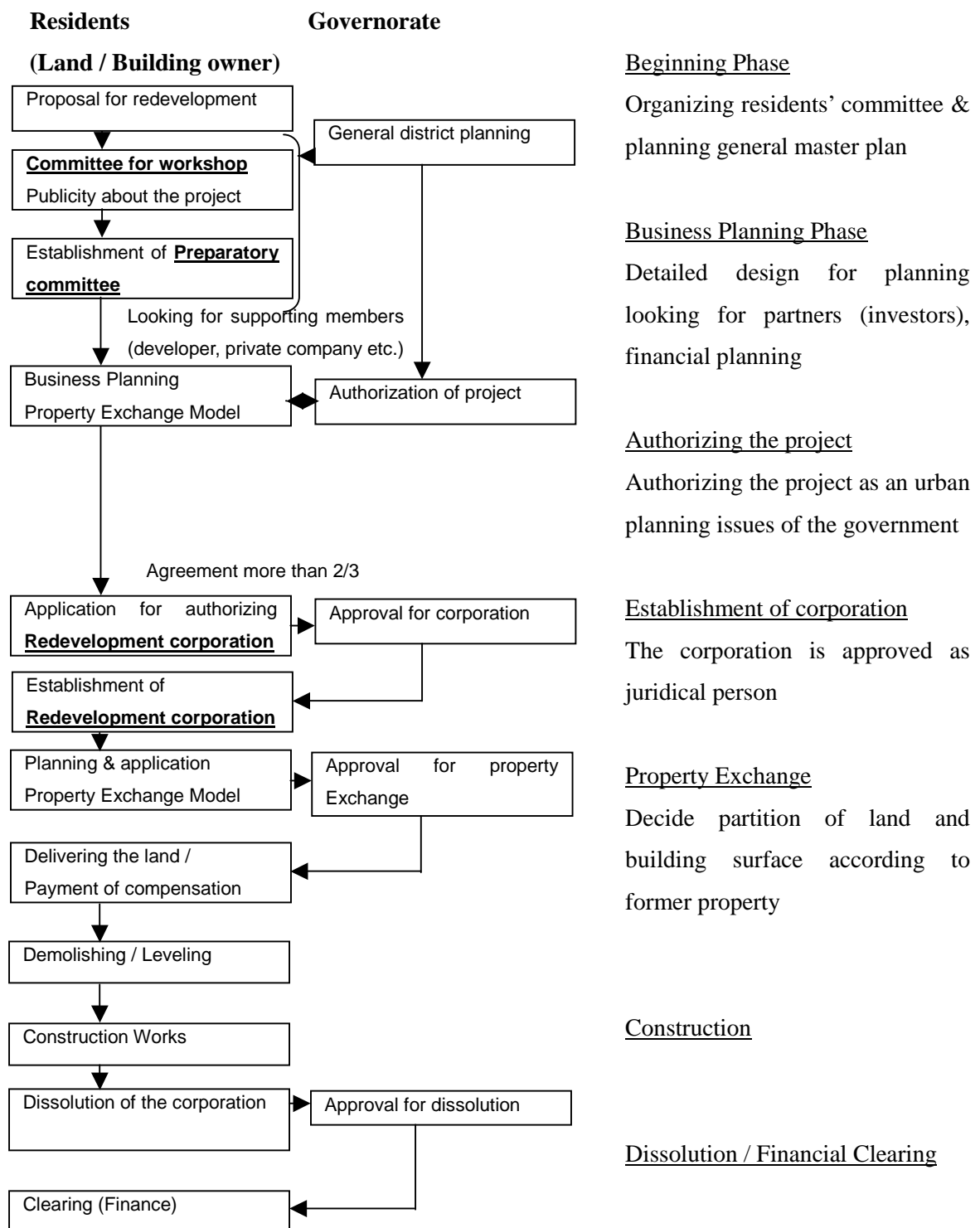


Figure 2.16 General Procedure for Urban Redevelopment Project (Draft)

2.4.2 Financial plan

(1) Financial planning system

A financial plan should be prepared and examined from two points: equivalent property exchange, and financial balance. Each point is explained.

1) Equivalent property exchange

Property exchange should be examined to ensure that the same property value for each resident would be maintained after the exchange. It involves the assessment of property value at present and after the completion of the project. Generally, the land area for each resident is reduced, but the property value will be at least maintained due to the appreciation of land value by the development. Construction of higher buildings to create larger floor area for additional residents, while ensuring at least the same floor area for the present residents is a common practice.

2) Financial planning for the project

Major elements to be examined in the financial analysis are listed in Table 2.9. The expenditure and income should be balanced. The financial plan would be executed by residents, administration and private firms involved.

Table 2.9 Major items for financial planning

Expenditure	Income
- Investigation fee	- New apartment sales money
- Design and planning expense	- Self resource
- Land development expense	- Subsidy
- Construction cost	- Administrator burden charge
- Interest on loan	
- Project office expenses	

(2) Cost estimate

The project costs consist of construction cost, engineering service cost, land acquisition cost, compensation cost, and contingencies. The construction cost is estimated in accordance with the guidelines of Syria consisting of material cost, labor cost, and equipment cost as specified in the guidelines. The cost for some elements has been adjusted to incorporate price escalation as judged relevant.

The engineering service cost covering the detailed design, assistance for tendering, construction supervision etc, is taken as 10% of the total construction cost. The land acquisition cost in the Qaboun area and the compensation cost are estimated based on the average rate of the following.

The land price is between 10,000 – 15,000 SP/m². The approximate rent is as shown below.

House: 800 – 1,000 SP/m²/year

Office and shops: 2,000 – 4,000 SP/m²/year

Warehouse: 1,000 – 1,800 SP/m²/year

Source: IEE Report

The compensation cost is calculated as the rent for the same floor area of the current residence and commercial offices and shops for temporary lodging for a period of five years during the construction. The private sector building construction cost including detailed design and contingencies are also estimated separately. The results are summarized in Table 2.8.

Table 2.10 Estimated Cost Summary for Qaboun

Project Cost Total	11,515.50	0.00	0.00	11,515.50	
Private Sector Building Construction (Qaboun)	16,767.92	0.00	0.00	16,767.92	
Grand Total	28,283.42	0.00	0.00	28,283.42	
Construction Cost Total	1,902.17	0.00	0.00	1,902.17	
Engineering Service Cost	190.22	0.00	0.00	190.22	10.0%
Land Acquisition	6,856.25	0.00	0.00	6,856.25	
Compensation Cost	1,520.00	0.00	0.00	1,520.00	
Contingency	1,046.88	0.00	0.00	1,046.88	10.0%
7 Culture Centers	33.60	0.00	0.00	33.60	
8 Religious	0.00	0.00	0.00	0.00	
9 Parking Facilities	29.64	0.00	0.00	29.64	
10 Infrastructures	140.73	0.00	0.00	140.73	
11 Miscellaneous.....	-37.30	0.00	0.00	-37.30	2.0%
2 Rehabilitation	0.00	0.00	0.00	0.00	
3 Roads	102.06	0.00	0.00	102.06	
4 Green Area	125.28	0.00	0.00	125.28	
5 Education	1,056.50	0.00	0.00	1,056.50	
6 Health Facilities	177.00	0.00	0.00	177.00	
Unit : Million SP					
Item	Phase 1	Phase 2	Phase 3	Total	Remarks

Source: Study Team

2.4.3 Proposals for legal and institutional system

As the project planning proceeds, the following matters should be taken up for modification of, or amendment to the existing law and regulations.

(1) Public-private partnership

Redevelopment projects in Syria are currently implemented mainly by the public sector initiative. To facilitate the real estate trading involved in the project implementation, and also to allow more flexible fund procurement, the legal and institutional system should be reformed for more substantive public-private partnership.

(2) Property evaluation system

A fair property evaluation system is vital to convince all the participants involved in the project for equivalent property exchange. Also, a mechanism should be established to preserve

the rights of landowners, building owners and tenants in property exchange.

(3) Other services

Loan and mortgage services should be introduced to support private investors and residents involved in the development. To facilitate the discussions between residents and the administration, an expert is often hired from a consulting firm or NPO. These services should be encouraged as they will become more and more important in the private-sector led development.