THE HASHEMITE KINGDOM OF JORDAN

MINISTRY OF TOURISM AND ANTIQUITIES

THE WORLD BANK

THIRD TOURISM DEVELOPMENT PROJECT

SECONDARY CITIES REVITALIZATION STUDY

Salt

Economic analysis

Annex 6

JOINT VENTURE OF COTECNO WITH ABT ALCHEMIA CDG MGA

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Abbreviations and acronyms

CAS	Country assistance strategy
CH	Cultural heritage
CBO	Community based organisation
CRP	City Revitalisation Programme
DOS	Department of Statistics
EIA	Environmental Impact Assessment
GSM	Greater Salt Municipality
GOJ	Government of Jordan
IBRD	International Bank for Reconstruction and Development
ITFCSD	Italian trust fund for culture and sustainable development
JTB	Jordan Tourist Board
MENA	Middle East and North Africa
MOE	Ministry of Environment
MOMA	Ministry of Municipal Affairs
MOPIC	Ministry of Planning and International Cooperation
MOTA	Ministry of Tourism and Antiquities
NEAP	National Environmental Action Plan
NGO	Non Government Organization
PA	Public Awareness
PPP	Public-private partnership
STDP	Second Tourism Development Project
TOR	Terms of reference
TTDP	Third Tourism Development Project
UNESCO	United Nations Educational, Scientific and Cultural Organisation
URP	Urban regeneration program
VEC	Valued Environmental Components
WB	The World Bank
WHL	World heritage List
WTO	World Trade Organisation

1. Introduction

The economic analysis of CRP proposal for Salt has been developed from both a qualitative and a quantitative point of view.

For each of the envisaged program actions a general analysis has been conducted by identifying and analysing, from a qualitative point of view, the economic effects, without proceeding with their quantification in monetary terms, while a cost-benefit analysis has been realized in order to evaluate the cost-effectiveness of the whole Salt CRP.

1.1 ACTIONS, FORESEEN INVESTIMENTS COSTS, TIMING AND STARTING YEARS

The economic analysis has been developed according to the data reported in the following table regarding foreseen investment costs, duration and starting year of the works related to each of the envisaged actions.

ACTIONS	INVESTMENT COSTS (US$)	TIMING	STARTING YEAR
S.01 Upgrading of the street network	647,654	14 months	1
S.02 The new “central square”	2,830,166	31 months	1
The Salt Heritage Fund	1,500,000	60 months	1
Capacity building action	457,650	30 months	1

TABLE 1 - ACTIONS, INVESTMENT COST, TIMING AND STARTING YEAR

The first step of the economic analysis has been to define the distribution of costs over the time that is a fundamental issue for the elaboration of the project cost-benefit analysis. Therefore, the project time sheet has been designed taking into account, on the one hand, the priority level of each action, and, on the other hand, the logical links among them.

The following table shows the time sheet regarding all actions of the CRP proposal for Salt.

ACTIONS	YEARS				
	1	2	3	4	5
S.01 Upgrading of the street network					
S.02 The new “central square”					
The Salt Heritage Fund					
Capacity building					

TABLE 2 – ACTIONS’ TIME SHEET

1.2 DISTRIBUTIONAL EFFECTS

From a merely economic point of view, the main beneficiaries of Salt CRP will be the owners of the commercial and economic activities directly and indirectly related to the tourism industry, who will increase their businesses. Such increase will, in turn, result in additional job opportunities for Salt's citizens, thus increasing the overall activity rate of the city and making individual and households' earnings grow. This will affect mainly youngsters and women, who currently represent the most disadvantaged groups in Salt.

Moreover, the establishment of the Salt Heritage Fund will enhance the liveability and environmental conditions within the new urban complex that will be created close to the Saaha compound, thus generating an increase in the real estate values and, therefore, in incomes.

Regarding both formal and informal private existing activities that could be easily "upgraded" to provide tourism or culture related services works and products, opportunities could be found in the construction sector (skilled construction workers) that seems have been growing during the last years. Development opportunities are also in handicraft (formal and informal production) of city's typical products (such as traditional food, embroidery, wood carving, etc). It is, however, essential to make efforts to improve the more directly tourism-related services (restaurants, guides, etc) in order to enhance customer satisfaction of Salt's visitors.

In general, the economic sector most directly affected during the realisation phase will be, undoubtedly, that of construction, this will, in turn, strongly impact the small enterprises and craftsmen sectors, while during the management phase the most affected sectors will be the following:

- commercial (shops in the historic cores);
- handicraft (both as building-related and commerce-related);
- informal sector;
- public/municipal sector;
- tourism-related activities (restaurants, hotel, other accommodations, tourist guides, tourist transport);
- services related to all the above.

The expected outcomes of the Salt CRP's implementation in the economic sectors potentially involved in the operational phase of the revitalisation program will be in terms of improvements in the production performances resulting in both sectoral occupancy and value added increase.

2. Economic analysis

2.1 GENERAL OVERVIEW OF THE TWO PHYSICAL ACTIONS

2.1.1 S.01 "UPGRADING OF THE STREET NETWORK"

The upgrading of the street network of the city core will generate two different kinds of economic benefits that will be quantified in Chapter 3 of this Annex:

- those related to the interventions aimed at improving the traffic conditions through the realisation of new parking stalls among the main commercial streets, thus reducing traffic jams and congestion and resulting in time-saving both for drivers and for pedestrians;
- those related to the interventions aimed at upgrading and improving the urban spaces, that will result in an increase of attractiveness of the whole city centre both for Madaba citizens and for people coming from the outside to do shopping in commercial streets..

2.1.2 S.02 "THE NEW CENTRAL SQUARE"

As already mentioned above, the realization of a mixed-use open air facility close to the Saaha compound will improve the liveability of Salt historic core, thus preventing the emptying out of its inhabitants. The implementation of this action will presumably generate an increase in the real estate values and in a general growth of incomes, even if it could be very difficult to precisely estimate the involved building volumes.

Moreover, the creation of an urban complex provided with leisure and entertainment facilities could develop into a focal point where Salt people can meet. This could stimulate a stronger cultural awareness among Salt's citizens and enhance among them a pro-active attitude towards the revitalisation of their city and its further valorisation as tourist destination.

Finally, the adaptive reuse of the existing buildings located in the proximity of the complex will stimulate the implementation of new tourist-related economic activities (such as cafes, restaurants, hotels, handicraft center, etc.) thus contributing to make Salt far more attractive for tourists.

2.2 THE CAPACITY BUILDING ACTION

The capacity building action within Salt Municipality has to be regarded to as an essential feature to guarantee the sustainability of the CRP envisaged benefits in the long period.

Indeed, as clearly emerged from the analysis carried out in Section 5 of Annex 1 "Detailed description of the CRP", in the present situation the Municipality currently misses the expertise required in order to correctly design, implement, manage, monitor and evaluate the actions foreseen by the CRP as a whole. Without proper training and capacity building interventions specifically addressed to the Public Administration officers, who will have after all the ultimate responsibility of the CRP implementation, the results achieved by the Program implementation will not be able to consolidate and, consequently, to fully activate the socio-economic benefits described above.

2.3 COST-BENEFIT ANALYSIS

2.3.1 INVESTMENT AND OPERATING COSTS

The reconstruction of investment and operating costs' breakdown over the years is the first step of the cost-benefit analysis.

Therefore, the following tables present both investment and operating costs of the whole Program. The operating costs considered in the analysis have been calculated on a forfeit base, according to the features of each action, and have been broken down over the first 10 years of project's activity (considering both construction and operation phases).

A) WORKS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Road construction	15,018	135,159				150,176
Utilities upgrading	28,370	255,328				283,697
Traffic management plan	4,234	38,109				42,343
Hard landscape		15,243	137,191			152,434
Parking lots		960	8,638			9,598
Special structures and furnitures		21,171	190,543			211,715
New building construction		59,280				59,280
Internal furnishing			35,568			35,568
TOTAL COST OF WORKS	**47,622**	**525,250**	**371,940**			**944,811**
B) ADDITIONAL PROVISIONS						
b1) TECHNICAL EXPENSES						
Detailed design consultancy -8% of A	3,810	42,020	29,755			75,585
Construction supervision and management (8% of A)	3,810	40,242	28,688			72,739
Construction site security (3% of new building construction)		1,778	1,067			2,845
Topographical & archaeological surveys/specialistic investigations (5% of A)	2,381	25,077	17,886			45,344
B2) CONTINGENCIES (15% of A)	7,143	78,787	55,791			141,722
TOTAL COST OF ADD-PROVISION	**17,144**	**187,904**	**133,187**			**338,235**
C) RELOCATION OF EXISTING MUNICIPAL BUILDINGS						
C1) Demolition	268,172					268,172
C2) Land acquisition	529,286					529,286
C3) New building construction		1,397,316				1,397,316
TOTAL COST OF RELOCATION	**797,458**	**1,397,316**				**2,194,774**
D) SALT HERITAGE FUND	**300,000**	**300,000**	**300,000**	**300,000**	**300,000**	**1,500,000**
E) CAPACITY BUILDING						
Recruitment of personnel	26,880	26,880	26,880	26,880	26,880	134,400
Training	13,500	6,750				20,250
Municipal Information System	10,000	20,000	10,000			40,000
Technical Assistance	20,000	20,000				40,000
In-kind Assistance	115,000				108,000	223,000
TOTAL COST OF CAP. BUILDING	**185,380**	**73,630**	**36,880**	**26,880**	**134,880**	**457,650**
FINAL ACTION PROJECT COST (A+B+C+D+E)	**1,347,603**	**2,484,100**	**842,007**	**326,880**	**434,880**	**5,435,470**

TABLE 3 – SALT CRP - INVESTMENT COSTS (IN US$)

As shown by the table above, the investment costs of the Program amount to a total of 5.435 million US$.

Action	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
S.01			3,900	5,200	6,500	6,500	6,500	6,500	6,500	6,500
S.02				15,000	20,000	25,000	25,000	25,000	25,000	25,000
Capacity building						26,880	26,880	26,880	26,880	26,880
Total			3,900	20,200	26,500	58,380	58,380	58,380	58,380	58,380

TABLE 4 – SALT CRP - OPERATING COSTS (IN US$)

2.3.2 BENEFITS

As already mentioned above when describing the main economic effects of each Program action, the economic benefits generated by the implementation of the Salt CRP can be quantified as follows:

- economic benefits related to the new parking places available in the historic core of Salt city;
- economic benefits related to the improvement of the quality of Salt urban spaces through the rationalization and beautification of both the street and the landscape of the very historic core of the city, making it more attractive for walking and for shopping;
- economic benefits related to tourism generated by the general improvement of its cultural facilities and supply.

The first class of benefits can be quantified in terms of time saved instead of looking for place, thanks to the wider availability of car-parking lots. In fact, the Project would provide for 44 new car-parking stalls[1], that will be located within the new urban complex that will be created adjacent to the Saaha compound.

The hypothesis taken into account in order to estimate the benefits are:

- an average time saving of 10 minutes per car;
- an average occupancy rate of the car-parking places of 50%;
- an average stay duration of 2 hours in each parking place;
- 12 hours/day of utilisation for each parking.

On the basis of the above parameters, the saved time will be of 8,030 hours per year.

According to the methodologies usually applied, the shadow value of time has been estimated as the GDP per capita per hour.

GDP/capita/year	1,288
GDP/capita/h	2.24

In the situation of normal operation the economic benefits will amount to almost 18 thousand JD per year.

[1] The number of the new parking stalls that will be created along the streets has been estimated considering a parameter of 1 parking stall/100 sq. meters (including the carriageway), taking as reference the interventions envisaged by Madaba's CRP action n.01 "Upgrading of the historic core city network" on King Talal Street. In that case, taking into account the street section object of interventions, a ratio of 1 parking stall/81 sq. Mt emerged; however, given the peculiarity of King Talal Street section, it has been assumed to adopt a prudential parameter for general estimations.

It is assumed that during the first 4 years of operation the parking utilization will progressively develop as follows:

- year 1: 40% of normal operation;
- year 2: 60% of normal operation;
- year 3: 80% of normal operation;
- year 4: 100% of normal operation.

The second class of generated economic benefits is related to the sales' increase foreseeable for the shops located within the city core, due to the Project generated improvement in streetscape quality, which will make the whole area more attractive for shopping. Undoubtedly, another effect of the project implementation will be the increase in the real estates values, but this second benefit category has not been quantified since it could be very difficult to precisely estimate the involved building volume.

The following table reports the main data on sector enterprises in Salt.

Sector	No. of Establishment	%	Employment	%	Total Value Added	%	Total Gross Output	%	Total Sales (JD)	%
Manufact.	340	14.27	972	19.44	1,876,861	19.62	6,189,808	33.48	6,189,808	11.76
Trade	1383	58.04	2838	56.75	5,522,738	57.74	7,376,432	39.90	41.541,667	78.90
Services	660	27.70	1191	23.82	2,165,360	22.64	4,919,125	26.61	4,919,125	9.34
Total	2383	100	5001	100	9,564,959	100	18,485,365	100	52,650,600	100

TABLE 5 - DATA ABOUT SECTOR ENTERPRISES IN SALT BY 2002

The hypothesis taken into account is that only the value added growth generated by the increasing of the shop sales has to be considered in the benefit estimation. It is reasonable to foresee a value added growth of 8% due to the projects implementation.

With this regard, it should be noticed that, in order to avoid duplications in the estimation of benefits, the value added increase has been determined without estimating the increase in expenditures for shopping due to the visitors attracted by the improvement of Salt cultural supply. Those benefits are quantified below, through the evaluation in monetary terms of the effects of the CRP implementation on tourists' presence in Salt.

Given the above, the economic benefits related to the growth in trade activities will amount to 641,072 JD per year.

As observed for the first class of benefits presented above, it is assumed that during the first 4 years of operation the value added will progressively increase as follows:

- year 1: 40% normal operation;
- year 2: 60% normal operation;
- year 3: 80% normal operation;
- year 4: 100% normal operation.

As for the last class of economic benefits, those deriving from the tourists' presence in Salt have to be considered together with the ones already calculated. Indeed, it can be assumed that the street and landscape beautification within the city core, together with the upgrading of urban spaces and, above all, the provision of new cultural assets and reuse of open spaces, will definitely contribute to increase the tourism attractiveness of Salt. This could induce tourism revenues, deriving from the new tourist expenditures. According to that, the indirect benefits of Salt CRP can be quantified measuring the value added generated by the tourists' expenditure.

In order to calculate the amount of tourism expenditure we may assume it to be equal to the present tourists' average daily expenditure in Jordan multiplied by the foreseeable number of tourists that will be attracted to Salt as a consequence of the CRP implementation.

The overall number of tourists can be calculated assuming as a starting point the number of visitors to Madaba Church of the Map, considering that the cultural heritage and the potential tourist attractiveness of the two cities are similar. However, in order to be cautious in the estimation, it can be assumed that the number of visitors to Salt city will be equal to 20,000 persons per year, that represents only the 7% of the recorded visitors to Madaba Church of the Map in the year 2000, the peak of the last years. Moreover, it has been assumed that one third of those visitors will represent new arrivals in Salt.

The average daily expenditure of overseas tourists is of 140.9 JD per arrival, as shown in the following table.

	Tourists	Accom-moda-tion	Food and drinks	Health treat-ment	Study universi-ties etc.	Internal transpor-tations	Recrea-tion	Shop-ping	Group tours	Other exp.	Total
Total	4,098,316	76,909	106,374	76,816	18,020	67,234	43,380	107,338	50,458	31,066	577,593
per arrival		18.766	25.955	18.743	4.397	16.405	10.585	26.191	12.312	7.580	140.934
value added		11.86	16.41	11.85	2.78	10.37	6.69	18.62	7.78	4.79	91.15

TABLE 6 - AVERAGE DAILY EXPENDITURE OF OVERSEAS TOURISTS

To convert expenditures in value added, gross output and gross value added of the main sectors (industry, service and trade) have been considered (see the table below).

	GROSS OUTPUT	GROSS VALUE ADDED	COEFFICIENT OF VALUE ADDED INDUCEMENT
Industrial sector	4,080,021	1,447,068	0.35
Service Sector: profit	740,979	468,401	0.63
Service Sector: non-profit	105,139	64,766	0.62
Service Sector: total	846,118	533,168	0.63
Trade	774,732	550,749	0.71

TABLE 7 - TOTAL VALUE ADDED OF INDUSTRIAL SECTOR FOR 2002- NATIONAL LEVEL (JD 000)

Economic benefits, in the situation of normal operation will be of 607,683 JD per year.

It is assumed that during the first 5 years of operation the increase in tourists' flow will progressively develop as follows:

- year 1: 30% normal operation;
- year 2: 40% normal operation;
- year 3: 50% normal operation;
- year 4: 60% normal operation;
- year 5: 80% normal operation.

YEAR	VISITORS	ARRIVALS	RECEIPTS	ECONOMIC BENEFITS
1				
2				
3	6,000	2,000	281,869	182,305
4	8,000	2,667	375,825	243,073
5	10,000	3,333	469,781	303,842
6	12,000	4,000	563,737	364,610
7	16,000	5,333	751,650	486,147
8	20,000	6,667	939,562	607,683
9	20,000	6,667	939,562	607,683
10	20,000	6,667	939,562	607,683
11	20,000	6,667	939,562	607,683
12	20,000	6,667	939,562	607,683
13	20,000	6,667	939,562	607,683
14	20,000	6,667	939,562	607,683
15	20,000	6,667	939,562	607,683
16	20,000	6,667	939,562	607,683
17	20,000	6,667	939,562	607,683
18	20,000	6,667	939,562	607,683
19	20,000	6,667	939,562	607,683
20	20,000	6,667	939,562	607,683

TABLE 8 - ECONOMIC BENEFITS RELATED TO ADDITIONAL NUMBER OF TOURISTS IN SALT

As shown in the table below, the total amount of economic benefits generated by the implementation of Salt CRP will amount to almost 1.267 million of JD per year in situation of normal operation.

YEAR	TOURIST ECONOMIC BENEFITS	COMMERCIAL ECONOMIC BENEFITS	PARKING ECONOMIC BENEFITS	TOTAL ECONOMIC BENEFITS
1	-	-		-
2	-	-		-
3	182,305	115,802	3,594	301,701
4	243,073	256,429	7,188	506,691
5	303,842	397,056	10,783	711,680
6	364,610	537,683	14,377	916,669
7	486,147	665,897	17,971	1,170,015
8	607,683	641,072	17,971	1,266,726
9	607,683	641,072	17,971	1,266,726
10	607,683	641,072	17,971	1,266,726
11	607,683	641,072	17,971	1,266,726
12	607,683	641,072	17,971	1,266,726
13	607,683	641,072	17,971	1,266,726
14	607,683	641,072	17,971	1,266,726
15	607,683	641,072	17,971	1,266,726
16	607,683	641,072	17,971	1,266,726
17	607,683	641,072	17,971	1,266,726
18	607,683	641,072	17,971	1,266,726
19	607,683	641,072	17,971	1,266,726
20	607,683	641,072	17,971	1,266,726

TABLE 9 – SALT CRP ECONOMIC BENEFITS (IN JD)

2.3.3 ECONOMIC EFFECTIVENESS

The indicators of return calculated are the Economic Net Present Value (ENPV) and the Economic Internal Rate of Return (EIRR).

Considering the difference between the time frame of the analysis, which is 20 years, and the useful economic life of the project, a residual value of 2,522 thousand of US$ has been considered.

The net flow of economic benefits is determined by the difference between the economic benefits and costs considered for the purposes of the profitability analysis.

The results obtained (see the table in Annex 1) show an almost sufficient profitability for the project: a positive ENPV is found, evaluated at a discount rate of 12%, of 3,998 thousand US$ and a EIRR of 23.3%.

In order to evaluate the economic stability of the project, a sensitivity analysis has been carried out. Taking into account changes on: benefits, investment costs and running costs, three hypotheses have been developed; the results are listed in the table below.

	HP1	HP2	HP3
Benefits Change	0	-15%	-10%
Investment costs change	10%	0	10%
Running costs change	10%	0	10%
EIRR	**22.9%**	**20.0%**	**16.4%**
ENPV	**3,782**	**2,548**	**1,455**

TABLE 10 – HYPOTHESIS A SENSITIVITY ANALYSIS

3. Annex 1 – Economic analysis table

SALT CRP - ECONOMIC ANALYSIS FOR THE COMMUNITY -

	YEARS																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Investment costs	1,251	2,305	781	303	404	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Running costs	0	0	4	20	27	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Indirect economic benefits	0	0	426	715	1,004	1,294	1,651	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788
Residual value																				2,522
Net benefits	**(1,251)**	**(2,305)**	**(359)**	**392**	**574**	**1,235**	**1,593**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**1,730**	**4,252**
Accrued net benefits	**(1,251)**	**(3,556)**	**(3,915)**	**(3,524)**	**(2,949)**	**(1,714)**	**(121)**	**1,609**	**3,338**	**5,068**	**6,797**	**8,527**	**10,256**	**11,986**	**13,715**	**15,445**	**17,174**	**18,904**	**20,633**	**24,885**

ECONOMIC IRR	**23.3%**
ECONOMIC PNV (,000 US$)	**3,998**
BACK DISCOUNTING RATE	**12,00%**

	HP1	HP2	HP3
Benefits change	0	-15%	-10%
Investment costs change	10%	0	10%
Running costs change	10%	0	10%
EIRR	**22.9%**	**20.0%**	**16.4%**
VAN	**3,782**	**2,548**	**1,455**