Access to Microfinance & Improved Implementation of Policy Reform
(AMIR Program)

Funded by the U.S Agency for International Development

Accelerating Private Investment in the Aqaba Region: Strategic Options for USAID

Final Report

Deliverable for Policy Component Task no. 4.1.25
Contract No. 278-C-00-98-0029-00

October 1999

This report was prepared by The Services Group, Inc., sub-contractor, for Chemonics International Inc., prime contractor to the U.S. Agency for International Development for the AMIR Program in Jordan.

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1. Introduction

USAID is interested in fostering private sector investment in the Aqaba Region by accelerating the private provision of industrial and commercial land. Such serviced land is currently in short supply in Jordan, and existing developments are dominated by public sector activities that are geographically concentrated in the North of Jordan. This study aims to identify strategic options for USAID in supporting private industrial and commercial real estate development in Aqaba that will lead to increased foreign and international investment, employment, technology transfer, and economic growth and diversification in Aqaba.

Identifying these options depends on the decision the Government of Jordan will take on whether or not to transform Aqaba Town and its environs into an international freeport area. The Aqaba Region Authority has commissioned a TSG study to evaluate the feasibility of transforming Aqaba into a freeport. While the study found this initiative to be highly feasible, the government remains ambivalent about the future development of Aqaba. For this reason, strategic options are developed for two scenarios: 1) The existing status quo situation in Aqaba, and 2) the Aqaba Freeport scenario.

2. Environment for Industrial Estate Development

One of the key factors in developing strategic options for support of private serviced land provision is the existing and future demand for such land. In Aqaba, this demand assessment differs significantly between the two development scenarios. When current levels of demand for serviced light industrial land are extrapolated, this indicates that Aqaba will have to add 14 hectares of serviced land over the next 10 years. If the Aqaba Freeport is implemented, this figure increases dramatically – under such a scenario, an additional 45 hectares of serviced light industrial land will have to be added over the next 10 years. It is anticipated that QIZ designation in Aqaba will increase demand to between 30 and 40 hectares over 10 years.

In Jordan as a whole, industrial estate development has been almost exclusively a function of a parastatal entity, the Jordan Industrial Estate Corporation (JIEC). Since its establishment in 1980, the JIEC has developed just under 300 hectares of land. However, the JIEC has recently embarked on an ambitious expansion program, and aims to develop an additional nine industrial estates, thus tripling its property portfolio by the year 2003. This plan is overly ambitious, and not based on a systematic analysis of demand for serviced industrial space in Jordan. The plan also threatens to crowd out any private industrial estate development investment, given the JIEC's reliance on a *de facto* monopoly position, special incentives, subsidized land purchases, and internal cross-subsidization.

In Aqaba, undeveloped land that is potentially suitable for light industrial estate development is owned by one of four public sector bodies:

1. The Aqaba Region Authority (ARA) controls 90 percent of land in the Aqaba Region, and is authorized to privatize these land holdings. As the primary development agency in the Aqaba Region, the ARA is keen to see a new industrial estate established.

2. The Civil Aviation Authority controls the Aqaba Airport and a surrounding 2,500 hectare airport control zone. While the control zone is designed to limit development around the airport, some precedents for industrial development within CAA control zones exist.

3. The JIEC owns a 275-hectare property across from the airport, of which it officially intends to develop 80 hectares by the year 2001. A 1997 JICA study already proposed a phased development schedule for this property.

4. The Free Zones Corporation (FZC) owns a 180-hectare site south of the JIEC property. 30 hectares of this free zone have been developed for equipment storage and maintenance operations. The FZC is interested in developing this site further, but Jordanian free zones are not attractive for manufacturers due to weaknesses in the FZC policy regime.

Based on a rough estimate of industry demand for 40 hectares of light industrial land in Aqaba over the next 10 years, it can be estimated that such a development would directly employ about 4,600 workers, generate US$ 92 million in annual output, and export US$ 64 million in goods. This level of potential activity supports the development of an industrial estate, but limits opportunities for multiple estate developments. For this reason, USAID support should carefully target the most appropriate development site and public sector institutional project sponsor.

3. Project Identification and Description

Status Quo Projects

The different potential project sponsors have important ramifications for the kind of policy regime under which an industrial estate development can take place. A development on ARA or CAA property would take place under national IPC incentives, and have access to the national duty drawback scheme. If the estate were to be developed under the JIEC regime, developers and tenants could access additional investment incentives, as well as simplified bureaucratic compliance requirements and simplified land sales procedures, especially for foreign investors. The FZC regime would offer full duty-free manufacturing privileges, but weaknesses in the FZC regime make manufacturing within Jordanian free zones unattractive. However, all of these regimes could in theory be combined with QIZ status, thus enhancing the market access available to tenants and thus increasing the development's chances for success. The available sites for light industrial development thus include:

- An ARA light industrial estate site on virgin land, either to the immediate north or south of the JIEC property, across the Dead Sea Highway from the airport

- A border industrial estate on ARA property. Because of the existing Aqaba Town and airport control zone locations on the border, the only remaining site for a private border QIZ estate would be north of the airport, 10 kilometers from Aqaba Town.

- A border industrial estate on CAA property. Such a development could combine border QIZ tenants with airport-related investors. However, such a development would compromise the airport control zone. The Aqaba airport master plan has also not been developed yet. Because the master plan would be required to integrate the estate with the requirements of the Peace Airport project, this would delay project implementation.

- A JIEC light industrial estate on the existing JIEC property in Aqaba. This approach would bring the strong JIEC into the development process, and access JIEC incentives. However, it is unclear to what extent the JIEC can enter into a public/private development under its existing laws and regulations.

- An industrial free zone on the existing FZC property. This option is unadvisable because of the shortcomings in the free zone regime and because the existing FZC location is in direct zoning conflict with the expansion needs of Aqaba Town.

In addition to these light industrial estate projects, there exists an interesting opportunity to develop a Commercial Center in Aqaba Town. A 2.5 hectare piece of frontage property on the Corniche Road across from the Old Fort is currently taken up by small and informal automobile repair workshops and low-quality housing for foreign workers. Land ownership is fragmented, and consists of a mixture of informal occupancy, usage rights, and formal leases. The location of this property offers the opportunity to use an integrated, multi-use commercial property development to achieve a number of public benefits while providing valuable commercial real estate in Aqaba Town.

It would also be possible to combine either the industrial or commercial property development options with a business incubator or common shared workspace facility to encourage entrepreneurship and small business development. However, such a project would have to await successful start-up of the larger anchor project.

Freeport Projects

If the Aqaba Freeport is implemented, the mix of potential projects changes significantly. Under this freeport regime, planning and zoning controls will be enhanced, and new light industrial development will take place within a 500 ha Northern Industrial Zone located along the re-aligned Desert Highway. Development of this zone would occur in the context of a radically liberalized economic environment, including full duty-free status and low, flat corporate income taxation. All other incentive regimes (including those offered by the IPC, JIEC, and FZC) would be eliminated within the freeport, and all government and parastatal landholdings would revert to the new Aqaba Freeport Authority (AFA). Under this scenario, the first phase of development would occur on 45 hectares of land at the intersection of the Dead Sea Highway and a new extension of the border post road. This development would be undertaken by private developers, in the context of the overall freeport investment promotion initiatives in the areas of light and heavy industry, services, logistics, and tourism development.

If the freeport initiative moves ahead, USAID could also support the implementation of the freeport regime itself and the operationalization of the AFA by funding the required technical assistance activities. These include providing assistance in the areas of:

1. Legal and regulatory implementation of the freeport regime
2. Technical and institutional support to the Aqaba Freeport Authority
3. Technical support to the new Freeport Customs Force
4. Infrastructure planning and privatization support
5. Public outreach and communications strategy

In addition, USAID could support implementation of the two new customs facilities that will have to be established at the entrance to Aqaba from the Dead Sea Highway and the Desert Highway.

4. Project Screening

These diverse status quo and freeport scenario projects were evaluated against a project evaluation matrix that tested each project's attributes against evaluation criteria that included:

- Overall fit with USAID objectives and activities, including the extent to which each project involves private sector participation, and how sustainable and competitive the projects are. In addition, considerations such as sectoral suitability, synergies with other donor activities, and the impact of each project's timing constraints were evaluated.

- Economic impact, including each project's probable direct job creation and value added profile. The source and amount of investment associated with each project was identified. The economic screening criteria also included export generation, downstream and cluster support effects, each project's robustness to changes in the economic and political environment, and over-all compatibility of each project with national development strategies.

- Environmental impact, including the compatibility of each project with good physical planning practices and the potential environmental impacts of each project composition and location.

- Social impact, especially in terms of changes in Aqaba's demographic composition and growth patterns, as well as specific issues such as relocation of existing structures.

The relative scores of the identified projects across evaluation criteria, and their overall ranking are summarized below.

Summary Screening Table

(+ = positive factor; 0 = neutral – no impact; - = negative factor, uncertain; shaded block = disqualifyin

	ARA Industrial Estate	ARA Border Industrial Estate	CAA Industrial Estate	JIEC Industrial Estate	FZC Industrial Free Zone	Town Commercial Center	Business Incubator	Freeport Northern Ind. Zone
Private Sector Participation	+	+	+	+	0	+	0	+
Sustainability/ Competitiveness	+	0	+	+	-	+	0	+
Fit with Other Donor Initiatives	+	+	-	+	-	0	+	+
Timing	+	+	-	-	-	+	-	-
Job Creation & Value Added	4,600 jobs US$ 23 m/year					800 jobs US$ 3.2 m/yr	>50 Subsidized	5,200 jobs US$26m/y
Investment	+	+	+	+	+	+	-	+
Exports (US$/year)	US$ 64.4 m					Indirect	Low	US$ 73.5
Downstream/ Cluster Effects	+	+	+	+	+	+	+	+
Robustness to External Change	+	-	-	+	+	-	+	+
Fit with Development National Strategy	+	+	+	+	+	+	+	0
Environmental & Planning Compatibility	+	-	-	+	-	+	0	+
Social Impact	+	+	+	+	+	+	+	+
SCORE	**10**	**5**	**2**	**8**	**1**	**7**	**3**	**7**

While this qualitative ranking is not precise, it provides a useful overview of the individual projects' relative attributes. During this scoring process, certain factors were designated as disqualifying factors in situations where the significance of the impact of the factor was such that it would most likely make the project unfeasible for a timing, sustainability, or planning perspective. Based on this analysis, the following conclusions were drawn:

Status Quo Scenario

- The JIEC site should be designated as the optimal site for the development of an industrial estate at Aqaba. The ARA site closer to Aqaba Town should be considered as a fallback in the event that the JIEC fails to reach a binding agreement on private sector participation before the next steps in developing the project are taken.
- The commercial center project in Old Aqaba Town be considered for support.
- The incubator/shared workspace project should be reconsidered when either the industrial estate or commercial center projects have been further developed and are about to commence.

Freeport Scenario

- The optimal freeport industrial estate development site is the AFA designated Phase 1 of the Northern Industrial Zone, and it is recommended that this site be considered for development.
- The AFA Technical Assistance project will a vital role in ensuring that the foundations for the Freeport are properly laid. To this end, and to help ensure the success of the Freeport industrial estate project, it is recommended that the Freeport Technical Assistance Project be made a condition of proceeding with the Freeport industrial estate project.
- The support to the provision of customs facilities at the Freeport boundaries, while not as urgent or directly influential as the technical assistance project, would also deserve support

5. Action Plan

Implementation of the identified strategic options can occur under three different scenarios. Under the <u>status quo scenario</u>, implementation of the JIEC industrial estate will have to begin with a negotiated agreement with ARA and the JIEC regarding private participation in the development, supported by a full project feasibility study and a review of the required legal framework. The Commercial Center project will have to be implemented based on an Agreement with ARA followed by a project feasibility study and specific interventions in terms of land ownership scooping and preparation of the architectural competition.

Under the freeport scenario, implementation of the Northern Industrial Zone project will have to be closely coordinated with a feasibility study and a close integration of the NIZ effort with over-all technical assistance to the Aqaba Freeport Authority to ensure that the liberal freeport regime is fully implemented in order to support the NIZ. In addition, implementation of new customs facilities north and east of Aqaba will help to ensure that thefreeport interface with the national customs territory functions smoothly.

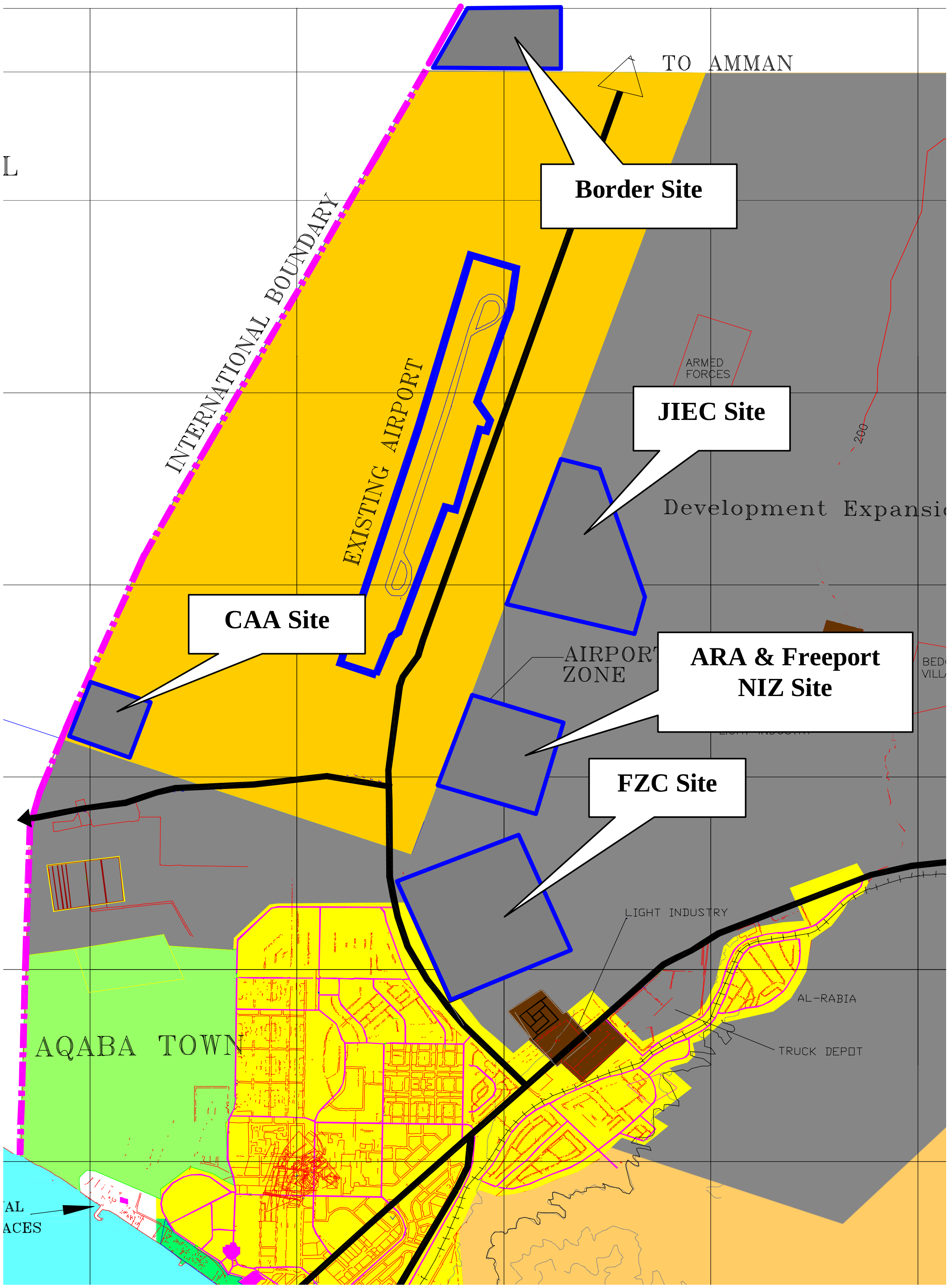
A third scenario anticipates the event that while USAID moves ahead with the status quo scenario interventions, the freeport regime is unexpectedly introduced. In this event, a transition scenario entails integrating the JIEC development into the broader NIZ planning structure, and conducting the Commercial Center project in the context of Aqaba Town's broader freeport development path. Both transitions should be planned for in the individual project feasibility studies.

The budget requirements for supporting these activities for the first year of implementation are:

Status Quo Scenario	
JIEC Industrial Estate	US$ 3,500,000
Commercial Center	US$ 2,250,000
TOTAL	**US$ 5,750,000**

Freeport Scenario	
Northern Industrial Zone	US$ 2,700,000
AFA Technical Assistance	US$ 2,875,000
Customs Infrastructure	US$ 7,000,000
TOTAL	**US$ 12,575,000**

Location Map: Aqaba Industrial Estate Sites



1. Introduction

1.1 Study Context

Through the AMIR project, USAID is supporting Jordan's ongoing economic reform process, including specific efforts aimed at attracting foreign investment. One of the constraints to increasing the role of foreign investment in the Jordanian economy is a lack of serviced commercial and industrial land. Government or parastatal entities control most available serviced plots, and private sector development of industrial real estate remains extremely limited.

In addition to the limited quantity and public sector management of in industrial real estate, available land is heavily concentrated in the north of Jordan. The southern port city of Aqaba in particular lacks modern, well-developed sites of the size and quality that international investors expect. This constraint exists despite the fact that Aqaba is southern Jordan's most promising investment location, given its strategic regional location and well-developed transportation infrastructure.

Aqaba's future development as a magnet for regional and international investment is also hampered by the uncertainty regarding the Government of Jordan's economic development strategy for the Aqaba Region in general. The Aqaba Region Authority has commissioned a TSG study to evaluate the feasibility of transforming Aqaba into a freeport. While the study found this initiative to be highly feasible, the government remains ambivalent about the future development of Aqaba, which in turn creates uncertainty in the minds of investors.

USAID believes that Aqaba continues to hold great potential as an economic growth point in Jordan, and is eager to support initiatives aimed at fostering investment and private sector-driven economic growth in Aqaba. In particular, USAID believes that donor funding in support of private commercial and/or industrial property development projects can be an effective mechanism for encouraging private sector investment in Aqaba. This study aims to identify for USAID strategic project opportunities that support this goal.

1.2 Objectives

The objective of this study is to thoroughly explore and describe a prioritized list of strategic options for USAID to support, in a significant way, private sector investment in the Aqaba region. The study will identify one or more priority options that USAID should pursue in its efforts to foster economic growth through support of private sector provision of serviced industrial land. Because of the uncertainty regarding Aqaba's future, options are developed under two different development scenarios:

1. **Aqaba Freeport Scenario**: The Government of Jordan is considering the possibility of turning Aqaba into a large-scale freeport area. Under this scenario, the town of Aqaba and its environs, the port facilities, airport, existing industrial areas, coastline, and inland areas would be designated as a 300km^2 freeport, outside the Jordanian domestic customs territory. This freeport is envisioned as a

magnet for private investment based on its strategic location and a liberalized policy environment that streamlines investment procedures, applies a simplified taxation system, and accelerates privatization and private investment in public infrastructure. If this freeport regime is implemented, there may be opportunities to support the freeport management in developing the freeport's potential for industry and services, including for example the proposed Northern Light Industrial Area, Southern Heavy Industrial Area, and other investment locations in the freeport area.

2. **Status Quo:** If the Aqaba freeport is not implemented, Aqaba remains a strategic transportation node and investment location whose full economic potential remains to be exploited. Even if the status quo economic regime in Aqaba remains in place, there may be opportunities to support the development of private sector-led investment in industrial land, either on a greenfield basis or in conjunction with existing landholdings by the Free Zones Authority or the Jordan Industrial estates Corporation, which to date have failed to reach their full potential.

1.3 Approach

The TSG team visited Jordan for three weeks in July 1999. The team met with key organizations and decision makers (see annex C) and developed an initial list of potential project opportunities identified by the donor community, Jordanian public and private entities, and the TSG team members. This initial list was discussed and further refined at an exit meeting with USAID/Jordan. The TSG team also developed a detailed screening matrix of project evaluation criteria. This matrix is the main tool for evaluating and prioritizing the competing project opportunities identified during the field mission.

This study describes the entire strategic option identification process undertaken by the TSG team. First, chapter 2 discusses the existing environment for industrial estate and serviced industrial land development in Jordan, including constraints to development at the national and regional level. Chapter 3 then outlines the project identification process, and describes the specific projects that were identified, both under thefreeport and status quo scenarios.

In chapter 4, the screening criteria matrix is described, and identified project opportunities are matched against the screening criteria. This process results in an identification of high-potential options, again under both the freeport and status quo scenarios. The steps necessary for developing these high-potential options are then outlined in an action plan, described in chapter 5.

The study concludes with a series of annexes that describe individual projects in greater detail, present a scope of work for the next steps to be taken, and lists the organizations, institutions, and individuals that were contacted during the course of the study.

2. Environment for Industrial Estate Development

2.1 Demand for Serviced Land

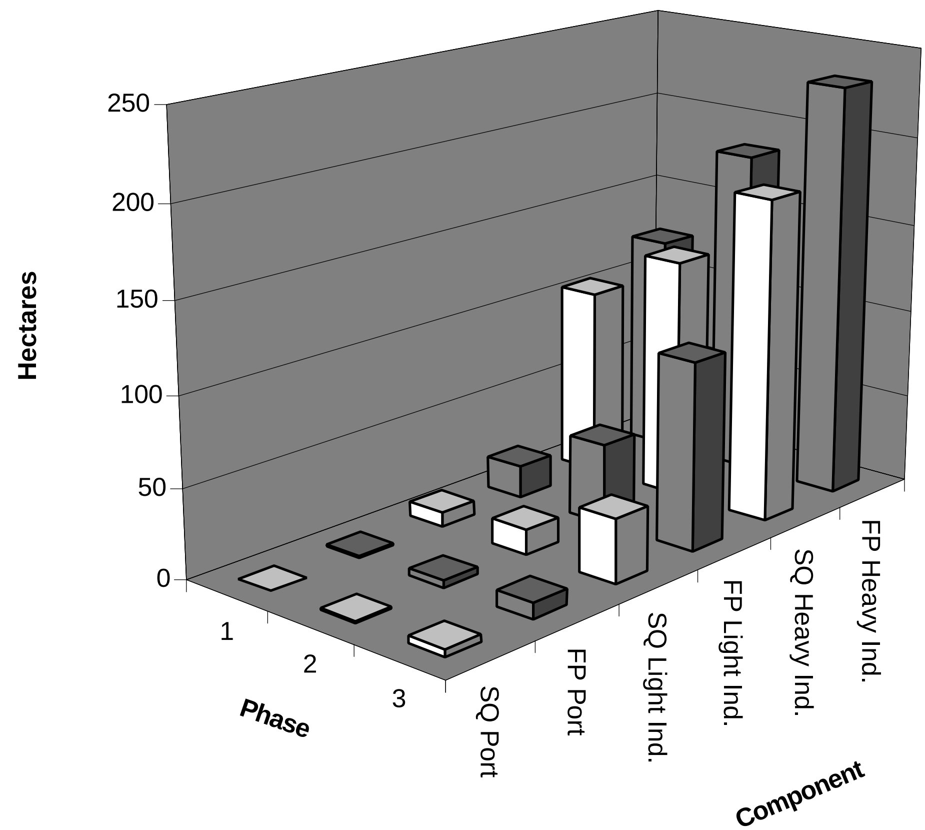
An assessment of actual demand for serviced commercial and industrial property in Aqaba is necessarily speculative in nature. Under the prevailing status quo in Aqaba, land pricing is not market-driven, and uncertainty regarding Aqaba's future has decreased real estate transaction volumes as landowners hold on to property in the hope that a new freeport regime may dramatically increase property prices and thus result in windfall profits. Only when this uncertainty is resolved will actual demand be revealed. The fact that Jordan's economic reform process is moving ahead, coupled with King Abdullah's renewed emphasis on economic issues, suggests that once a clear development path for Aqaba is chosen, investor interest and demand will be above the levels registered in the mid-1990s, when speculation regarding the Aqaba freeport initiative began.

If the freeport initiative is implemented, Aqaba will become a very different investment location than it is today. Sweeping changes in the prevailing policy regime, institutional arrangement, and infrastructure network will drastically increase Aqaba's ability to attract inward investment and diversify the kinds of economic activities that locate in Aqaba. The freeport feasibility study[1] projected that if all components of the proposed freeport regime are implemented, demand for serviced industrial land will increase by 23 ha above and beyond status quo demand during the first five years. This difference increases to 83 ha in year 10 and 125 ha in year 20. In absolute numbers, Aqaba will have to add 142 ha of serviced industrial land over the next five years of the freeport is implemented, and increase that area to 233 ha over ten years.[2] Figure 2.1 illustrates the difference between demand for land under the freeport (FP) and status quo (SQ) scenarios.

[1] The Services Group, Aqaba Freeport and Special Economic Zone Feasibility Study and Implementation Plan, vols. 1-7, 1999 (carried out for the Aqaba Region Authority, financed through a World Bank loan).

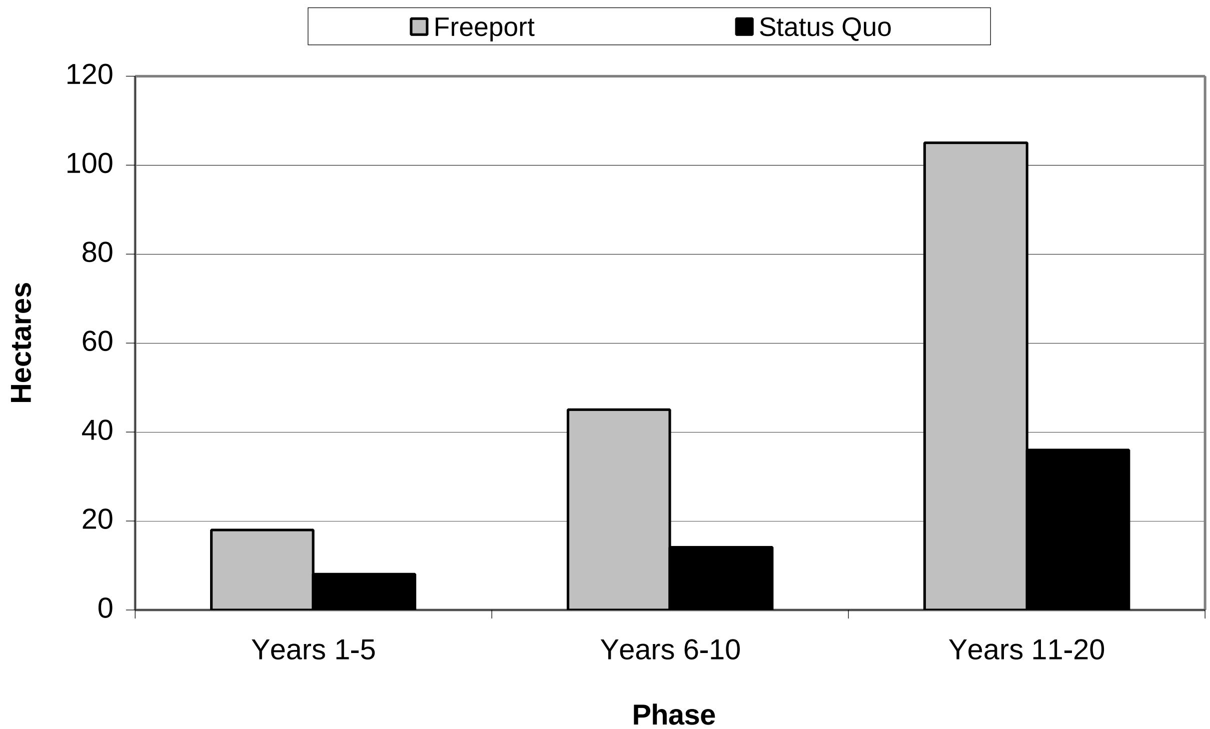
[2] These figures are for industrial land only. In addition to industrial land, implementation of the freeport is projected to lead to a total of 563 ha of tourism development and 1,204 ha of residential development over 20 years. The projected marginal impact of the freeport regime in these two categories of property development are 84% and 72%, respectively.

Figure 2.1: Freeport Demand for Serviced Industrial Land



Even if the freeport regime is not implemented and investment activity resumes under the status quo regime, Aqaba will have to add 113 ha of light and heavy industrial land over the next five years. Both scenarios, however, are heavily skewed towards heavy industrial development in the south of Aqaba. If only demand for light industrial land is considered, two trends emerge: First, the total demand for light industrial land is much lower in terms of raw land area than demand for heavy industrial development space. Second, the added impact of thefreeport on demand for light industrial land is much larger than the impact on demand for industrial land in general. This demand exceeds the status quo scenario by 125% after five years, 221% after ten years, and 192% after 20 years. Figure 2.2 illustrates these two growth scenarios.

Figure 2.2: Light Industrial Land Demand

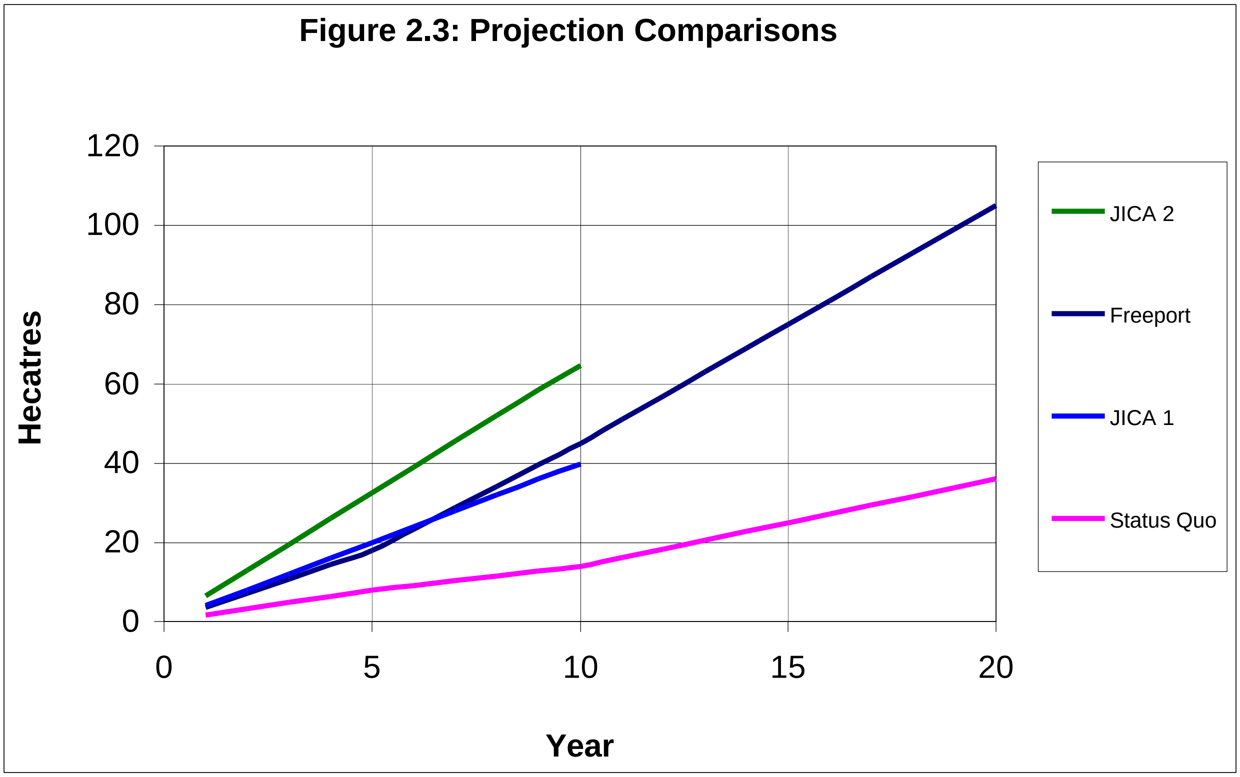


These projections were developed as the basis for a freeport implementation plan, and as such have a conservative bias to avoid overly optimistic projections that, if adopted, could in effect understate the financial and fiscal risks of the project. A more optimistic projection of investor demand was undertaken by JICA in 1997, as part of a siting and development for industrial estates in southern Jordan.[3] These projections were based on a survey that assessed individual companies' expansion and investment plans. This survey did not develop phased projections, but the emphasis on existing demand suggests an overlap with phases 1 and 2 (years 1-10) of the freeport demand projections.

The JICA study assessed demand for the southern industrial area, an industrial estate near the airport, and another site to the north of the airport. Almost all of the projected demand was in the manufacturing sector, with relatively little demand projected for heavy industry – even in the southern industrial area. The study identified the airport industrial estate as the optimal location to meet this demand by manufacturing investors, which was estimated at between 74.8 and 139.6 ha. However, these projections relied heavily on a single U.S. investment in machinery. Discounting this single project (out of the forecast 33 projects identified through the survey) decreases those projections to between 39.8 and 64.6 hectares. Figure 2.3 compares these

[3] Nippon Koei, Study on Industrial Development in the Southern Districts of the Hashemite Kingdom of Jordan, Japan International Cooperation Agency, February 1997.

projections with the freeport numbers, assuming that the JICA demand is served over a 10-year time horizon.



The more optimistic JICA projections thus coincide more closely with TSG's freeport investment scenario. In order to achieve these numbers, JICA projected a strong inflow of local investment in fabricated metals manufacturing (1/3 of all local and foreign investment) and three glass and non-metallic mineral investments that are more appropriately sited in the southern industrial zone. TSG therefore believes that under a non-freeport investment scenario, TSG's conservative status quo investment projections for light industrial activity to the north of Aqaba town are a more appropriate point of departure for the purposes of planning and implementing an industrial property project. In the absence of a freeport or other incentive scheme, Aqaba will have to add about 40 hectares of light industrial land over the next 20 years. If the freeport is implemented, this figure increases to over 100 hectares.

The single policy intervention that is most likely to boost investment inflows to Aqaba in the absence of a freeport regime is the introduction of a QIZ. Virtually all foreign investment inquiries currently received by the IPC are QIZ-related, and the existing Al-Hassan QIZ has attracted some 22 investments since the first QIZ was designated. While many most of these investments are still in the start-up phase, the Ministry of Industry and Trade estimates that the average QIZ investor will initially build out about 2,000 m^2 of factory space. At standard development densities, this translates into 9.7 hectares of raw land and 1,115 jobs. Since the first QIZ was designated in March 1998, an adjusted annual rate of development is about 15 QIZ companies taking up 6.5 hectares of raw land and employing 750 workers per year.

This estimate is very theoretical because the QIZ program is very new, and the initial 18-month start-up period is insufficient to demonstrate real investment trends. However, because the initial start-up period was associated with uncertainties about the QIZ program itself (especially the exact Israeli content requirements) and because of the initial reluctance of many Jordanians to participate in the QIZ, it is reasonable to assume that this annualized average represents a lower limit in the growth rate of the QIZ program over the next five to ten years. This would mean that Jordanian QIZ investors will require at least another 32.5 hectares of land by mid-2004 and 65 hectares by 2009.

Working from this lower development limit, some reasonable assumptions can be made about future QIZ investment inflows:

1. Current QIZ locations imperfectly accommodate investors who benefit from proximity to a port (i.e. manufacturers who import bulk raw materials from Asia) or who would benefit from a location in immediate proximity to a populated area in Israel (i.e. Eilat). An Aqaba QIZ could thus attract an additional 10 percent of QIZ investment.

2. An Aqaba QIZ can capture 10 percent of investment inflows that currently go to Irbid but that would be better accommodated in Aqaba – especially as evidence by Asian investor interest in Aqaba.

3. Annual Jordanian QIZ investment inflows will increase by 10 percent per year over the next ten years.

Under these assumptions, an Aqaba QIZ could capture 8 hectares of QIZ investment over five years and 16 hectares over 10 years, in addition to existing status quo investment (which is aimed primarily at non-U.S. markets). This QIZ impact alone would increase status quo projections to 40 hectares over ten years.

2.2 Constraints to Private Industrial Estate Development

To date, industrial estate development is quite limited in Aqaba. Te Free Zones Corporation operates several facilities in Aqaba, but these serve primarily as storage facilities for perishable goods, sea cargo, industrial inputs, and construction/transportation equipment. A so-called "industrial area" north of Aqaba town is an unserviced property that houses a number of small-scale stone and tile processors who have been re-settled from the town itself. Most of the limited manufacturing activity that takes place in Aqaba is located within the town itself.

A major impediment to industrial estate development in Jordan is the lack of private sector. Traditionally, provision of bulk serviced industrial land for sale or lease to tenants has been undertaken exclusively by the JIEC and FZC. Only recently have private groups attempted to enter this area – for example, Al-Tajamouat Co. has proposed to develop a 30 ha private industrial estate near the existing Sahab industrial estate. Some smaller private owners of land zoned for industrial purposes rent plots to individual enterprises, but these operations are small in nature and provide few shared services beyond security fencing. Today, virtuallyall manufacturing enterprises that chose to locate in an industrial estate do so in one of the JIEC facilities. With the exception of some large minerals processing operations in single-factory free zones, the FZC properties serve primarily commercial tenants.

Table 2.1: JIEC Investment Figures (1998 statistics)

Estate	Est.	Area	Full	Firms	Investment	Jobs
Sahab (Amman)	1980	253 ha	98%	363	$ 1,168 mil	13,641
Al-Hassan (Irbid)	1991	42.7 ha	100%	60	$ 119 mil	4,115

Source: JIEC Annual Report, 1998

Since its inception in 1980, the JIEC has developed about 300 ha of industrial land and attracted over 420 tenants who have invested almost US$ 1.3 billion and created roughly 18,000 jobs (see table 2.1). On average, this translates into about 15 ha of raw land per year that the JIEC has developed since its inception. The JIEC is now planning an ambitious investment program to expand its industrial property portfolio from the existing two industrial estates to eleven. If implemented, this would increase the JIEC's properties to a combined 859 ha by the year 2003 and, ultimately, to 2,617 ha by the end of the initiative. The individual projects to be developed are itemized in table 2.2 below.

Clearly, the JIEC's plans to almost triple Jordan's developed industrial estate area in the next 4.5 years (at a rate of 125 ha per year) are ambitious. They also represent a substantial challenge to private developers of industrial property.

As a parastatal entity, the JIEC has the capacity to crowd out private investment in the economy by investing public funds in areas where private investors are also pursuing opportunities. Where the JIEC can use its position as a subsidized parastatal entity to gain cost advantages over private developers, this crowding out effect is exacerbated. The JIEC at present benefits from a number of such subsidies that give it a strong position vis-à-vis private developers:

Table 2.2: New JIEC Investment Projects

Estate	Area	Industries	1st Phase Status
Karak Industrial Estate	190 ha	Food Chemicals	58 ha under construction, to be completed by October 1999
Mafraq Industrial Estate	225 ha	Food	Design stage, 60 ha to be completed end-2000
Ma'an Industrial Estate	250ha	Transportation Engineering	Design stage, 50 to be completed end-2000
Queen Alia Airport Industrial Estate	25 ha	High-tech Garments	Design stage, no phasing
Aqaba Industrial Estate	275 ha	Manufacturing Electronics	80 ha to be completed by mid-2001
Al-Hasa Industrial Estate	406 ha	Chemical	80 ha to be completed by early 2002
Al-Muwaqar Industrial Estate	600 ha	Sahab extension	80 ha to be completed by early 2003
Zarqa Industrial Estate	250 ha	n/a	80 ha to be completed by mid-2003
Tafila Industrial Estate	100 ha	Handicrafts SME	50 ha to be completed by end-2003

Source: JIEC

- **Incentives.** The JIEC offers attractive incentives to investors who locate in its properties, including income tax holidays, and exemption from property taxes and fees. These incentives are not available to investors in private industrial estates.

- **Return on investment.** The JIEC's shares are held directly by the government (67.5%) and a variety of other parastatal institutions (Social Security Corporation, Industrial Development Bank, Housing Bank). These shareholders cannot sell their shares (except to each other) and have never received a dividend, despite the JIEC's profitability. Private investors cannot access such patient shareholders.

- **Land acquisition.** The JIEC has acquired land for new industrial sites at prices far below those that would be charged to private industrial estate investors. For example, the site for the proposed Aqaba Industrial Estate was purchased from the Aqaba Region Authority for US$ 5,600/ha, well below the property's market value.[4]

- **Land pricing.** Partly due to the JIEC's low land acquisition costs, land prices within JIEC properties are very low. Table 2.3 summarizes these costs in JIEC properties and compares them with market-driven rates applied in thefreeport

[4] The freeport study's financial analysis assumed a value of US$ 100,000/ha for virgin land. By contrast, the JIEC's cost of US$ 5,600/ha includes an agreement that the ARA provide off-site infrastructure, so that the purchase price is essentially one for serviced land. The JIEC has to date not remitted the full purchase price to the ARA.

study. It should be noted that the JIEC charges a per hectare price for serviced land in the high-demand Al-Hassan industrial estate that is almost as low as the market-driven virgin land sales price calculated for Aqaba, where demand for land is significantly lower. The JIEC's Sahab property, which lies in close proximity to Amman, carries a sales price that is only two-thirds the price at Al-Hassan. Because land prices are so low, JIEC can charge lease rates of 8 percent of sales value.

Table 2.3: Land cost and lease rate comparison

	Sahab (Amman)	Al-Hassan (Irbid)	Freeport (Aqaba)
Lease rate (serviced plot) US$/ ha/ year	21,186	35,311	8,000
Sales price (serviced plot) US$/ ha	282,486	423,729	400,000
Lease rate/sales price ratio Percent	7.50%	8.33%	2.00%
Rent (standard factory building) US$/ m^2/ year	16.80	21.00	n/a

Source: JIEC and TSG

- **Cross-subsidization.** The JIEC acknowledges that with its ambitious industrial estate development program, profitable estates in core industrial areas will offset losses that are likely to be incurred in some of the new industrial estates. The geographic distribution of the proposed new estates suggests that political considerations (i.e. distribution by Governorate) was a major consideration in estate siting. The JIEC acknowledges that its demand analyses have been limited in scope, which helps to explain some of the optimistic projects that have been designed (i.e. a 100 ha estate for handicraft development and SMEs in Tafila Governorate). As a result, private estate developers interested in potential opportunities outside Jordan's core industrial areas may have to compete with JIEC estates that provide more expensive facilities at concessionary terms, cross-subsidized by JIEC estates that are profitable.

In addition to the JIEC's ability to crowd out private industrial estate development through a variety of incentives and subsidies, the JIEC's statutory and institutional structure further impedes private sector-led industrial estate development in Jordan. At its inception, the JIEC was clearly envisioned as a monopoly provider of industrial estates whose objective was to "study, plan, establish and manage all Industrial Estates in the kingdom."[5] As such, the JIEC was vested with the dual function of 1) administering the regulatory oversight functions necessary to oversee the industrial estates program, and 2) acting as a developer of industrial estates under that program. This commingling of regulatory and developmental roles within the same organization

[5] Law No. 59 of 1985, The Jordanian Industrial Estates Corporation Law, Article 6. While this provision does not explicitly deny private developers from establishing industrial estates, it excludes them from the incentives and administrative flexibility provided for in the law. It appears that at the time of the drafting of this law, industrial estate development was perceived as a development objective rather than a potentially profitable industrial real estate development activity that could boos private sector growth in and of itself.

represents a potential conflict of interest for private developers if they are allowed to participate in the JIEC-administered industrial estate program in the future. Even if private developers are granted the same industrial estate development incentives as JIEC, the administration of those incentives, as well as related permits and construction approvals, would remain in the hands of a direct (but public sector financed) competitor.

2.3 Land Transfer Mechanisms

The role of the JIEC in developing industrial estates is also critical in light of Jordan's restrictive land acquisition and construction permitting regime. The collection of policies governing the acquisition of rights to land and its use and development are highly complex and can be especially problematic for foreign investors. Administration of land policies often requires decisions at the highest levels of government. Construction and site development policies involve a broad array of approvals by different agencies under unclear procedural rules.

Table 2.4: Land Ownership and Structure and Transfer Mechanisms

Owner	Status Quo	Freeport
Aqaba Region Authority	ARA controls 90 percent of land in Aqaba Region Residential land is being distributed below market price Land for industrial and tourism development is distributed on case-by-case basis	Aqaba Freeport Authority (AFA) assumes control of most government- and parastatal-owned property Land is distributed at market prices on an auction or tender basis
Civil Aviation Authority	Expanded airport control zone under CAA jurisdiction Non-airport development banned from airport control zone Investment committee could approve land clearance for 20-30 year lease	Airport control zone remains intact Only airport-related services (i.e. maintenance and courier services) can locate within control zone
Jordan Industrial Estates Corporation	JIEC owns (and has partially paid for) 275 ha site near airport Property purchased well below market value Tenants can buy or lease land from JIEC once site is developed	JIEC land is transferred to AFA JIEC may choose to become a freeport enterprise and invest within the freeport
Free Zones Corporation	FZC owns 180 ha site, 30 of which is developed for equipment storage and maintenance operations Only allows for leasing of land	FZC land is transferred to AFA Need for FZC and free zones benefits obviated by overall duty-free regime

As a matter of law, land sale and lease transactions involving foreigners require the approval of the Council of Ministers. Furthermore, the Sale and Lease of Immovable Property to Foreigners Law provides that land leases to foreign investors may not exceed three years, unless an extension is approved by the Council of Ministers. At present, the JIEC framework represents the only alternative to this restrictive land sale and lease policy.[6]

Outside of JIEC's industrial estates, construction of any facility on land requires a building permit from the local municipality or regional authority. Such a permit is issued only after prior screening and approval by each of the following agencies: Jordan Engineering Association; General Corporation for Protection of the Environment; Civil Defense Department; Water Authority; and the Antiquities Department of the Ministry of Tourism. Upon the completion of construction, the occupant must obtain an occupancy permit from the municipal or regional authority before beginning to use the facility. This can be complicated in the case of several industries (e.g., chemicals, pharmaceuticals and food processing) requiring pre-approvals by various line ministries and agencies and inspection for compliance with applicable rules and regulations.

Virtually all land suitable for industrial development in the vicinity of Aqaba is currently owned by the Aqaba Region Authority (ARA), the Civil Aviation Authority (CAA), the JIEC, or the FZC. Table 2.4 summarizes how these various landholdings are currently structured, and how they would change with the introduction of the freeport regime.

The ARA remains the largest landowner in the Aqaba and, as part of its mandate, is currently engaged in a residential land distribution program at below market prices. Land for industrial and tourism projects (including a number of recent investments in heavy chemical industry complexes and several large-scale tourism projects that have been announced) is priced and allocated on a case-by-case basis. Very little unused ARA-controlled land is currently zoned for light industrial use. If the freeport regime is introduced, the ARA will be transformed into the new AFA and assume control over even more land in Aqaba as real estate assets are transferred from other government and parastatal entities. Privatization of these assets will then proceed at market-determined rates. The primary light industrial zone identified under the freeport master plan is the 500 ha Northern Industrial Zone near the airport.

The CAA holds ownership of the recently expanded 2,500 ha airport control zone, which extends two kilometers north and south of the runway, and from the Israeli border in the east to the re-aligned Dead Sea Highway in the west. This control zone has been extended to allow for future expansion of the airport – which may or may not include additional construction of airport facilities to implement the Eilat/Aqaba Peace Airport project. Reserving zoning allocations for future airport expansion is critical to avoiding potential future zoning conflicts, as is evidenced by the insufficient zoning set-asides that now threaten the viability of the Eilat airport.

Nonetheless, the CAA has indicated that it could potentially allow some industrial activity within the airport control zone on a 20- to 30-year lease basis, as it is currently doing with a 30 ha site within the Queen Alia International Airport control zone. The CAA hopes to use such a mechanism to boost airport-related investment, both in terms of providers of airside services and

[6] The JIEC is authorized to sell land to foreigners under the JIEC Law No. 59 For The Year 1985, Article 7, Paragraph G.

users of airfreight services.[7] The CAA is currently seeking funding for an Aqaba airport master plan, so the physical layout within the airport control zone remains open.

The airport control zone is of particular interest for the siting of a border QIZ industrial estate, since it occupies almost all undeveloped border land for ten kilometers north of Aqaba town (the only exception is the stretch of land between the Royal Gardens and the control zone, though most of this is occupied by the sewage treatment plant and the border crossing point and its related security-related facilities). While the airport would fall within the perimeter of the freeport if it is implemented, the control zone and the CAA's jurisdiction over that zone would remain intact. The freeport would also create new opportunities for inter-modal logistics management activities and could create investment opportunities in aircraft maintenance and courier services within the control zone itself.

The JIEC owns a 275 ha virgin property across from the main airport entrance. JIEC plans to develop 30 percent of the site, and is currently planning to issue a tender for a phase one engineering design. If JIEC does develop the site, current JIEC law would limit private sector participation in estate development to provision of outsourced services. Tenants would be able to buy or lease serviced land or SFBs within the estate. JIEC's existing pricing policies and the low purchase price of the Aqaba property make it difficult to project lease, rent, and purchase prices that the JIEC would be likely to charge. If the freeport is implemented, the JIEC property would revert to the AFA, to be subsumed in the larger Northern Industrial Zone[8], though the JIEC would be able to subsequently invest in the freeport.

The FZC owns a 180 ha site north of Aqaba Town, adjacent to the Dead Sea Highway. 17 percent of that site is developed as a storage and maintenance facility, and the FZC has already developed an engineering design for the remainder of the free zone. The FZC only offers property to tenants on a lease basis, and constraints in the existing FZC law make Jordanian free zones unattractive as investment locations for manufacturers (these constraints are explored in detail in the next chapter). If the freeport regime is implemented, then all free zone properties in Aqaba will lose their special status, since the entire freeport are will enjoy duty free privileges. The free zone north of Aqaba Town will be transferred to AFA ownership and dismantled in order to free up residential expansion space north of Aqaba, in line with the over-allfreeport master plan recommendations.

2.4 General Conclusions

Significant unmet demand for serviced light industrial land exists in Aqaba, though estimates of the magnitude of that demand vary. A simple extrapolation of current demand, in the absence of new incentive schemes such as an Aqaba QIZ or an Aqaba Freeport, suggests a modest demand for 8 ha over five years and 14 ha after 10 years. If Jordan moves ahead with the freeport initiative, demand increases to 18 ha over five years and 45 ha over ten years. A non-freeport

[7] Under the Investment of Public Places in Civil Airports Regulation (Regulation No. 12 For The Year 1983), Articles 3-4, the CAA is authorized to lease land to third parties for commercial and airport-related services.

[8] It remains to be resolved whether this transaction would be a simple transfer of government assets from the JIEC to the AFA, or whether the JIEC would receive expropriation compensation.

scenario that liberalizes some aspects of the current investment environment (i.e. through introduction of an Aqaba QIZ) will yield demand figures somewhere between those estimates. In addition, interviews with Jordanian and international companies suggests that private investment in Aqaba has been scaled back due to the uncertainty regarding the Aqaba Freeport, and that pent-up demand will increase demand under the status quo scenario if a decision is made against the freeport initiative.

Meeting this demand for light industrial land can be accomplished through a number of mechanisms. Industrial estate development in Jordan is carried out almost entirely by the JIEC, which has undertaken an initiative to triple its property portfolio by the year 2003 and eventually increase its real estate holdings nine-fold. Given the JIEC's corporate structure, legal position, and de facto monopoly in industrial estate development, a new JIEC development in Aqaba could crowd out private sector investment.

Siting of a new light industrial estate in Aqaba is influenced not only by the physical characteristics of available sites, but also by the different government entities that own sites, and the different policy and incentive schemes that apply to each. These policy and incentive schemes are examined in greater detail in the next chapter – both under the status quo scenario and the proposed freeport scenario.

The challenge in supporting private sector investment in industrial property development thus lies in developing a strategy that balances existing land ownership arrangements and government and parastatal development plans with the needs of potential private-sector investors – who have virtually no track record in developing private industrial estates in Jordan. On the other hand, none of the government and parastatal entities that control potential sites in Aqaba has the authority, expertise, and financial resources to independently develop and service an industrial estate project. Striking the right balance between the public and private components of an industrial property project should:

- Involve private developers. Bringing one or more private development groups into an industrial estate project not only expands investment opportunities and helps to build depth in Jordan's real estate development industry, but it also adds marketing and operational expertise. Private developers are also more likely to offer expanded estate-related value-added services that in turn can help to attract a larger and more diverse tenant base.

- Follow market demand. Estate development, configuration, subdivision, lot sizing, and service provision should be based on a detailed assessment of actual investor demand, not on regional development objectives. Phased,flexible development that meets user requirements over time is a more successful approach than building an estate based on the kind of development mix a government or parastatal entity would like to encourage.

- Support export manufacturers. Aqaba's strategic location near Jordan's only port and on the border with Israel, Egypt, and Saudi Arabia opens up a variety of export-oriented opportunities for manufacturers. In the context of an industrial estate, these export opportunities should be built upon through QIZ designation.

- Link to existing transportation infrastructure. In planning an industrial estate in Aqaba, linkages between new developments and the existing road, port, and airport infrastructure should be taken into account.

- Rely on market-driven pricing. To effectively harness private sector marketing expertise and service provision within the industrial estate, lease rates and sales prices for land and facilities should be driven by market-determined prices.

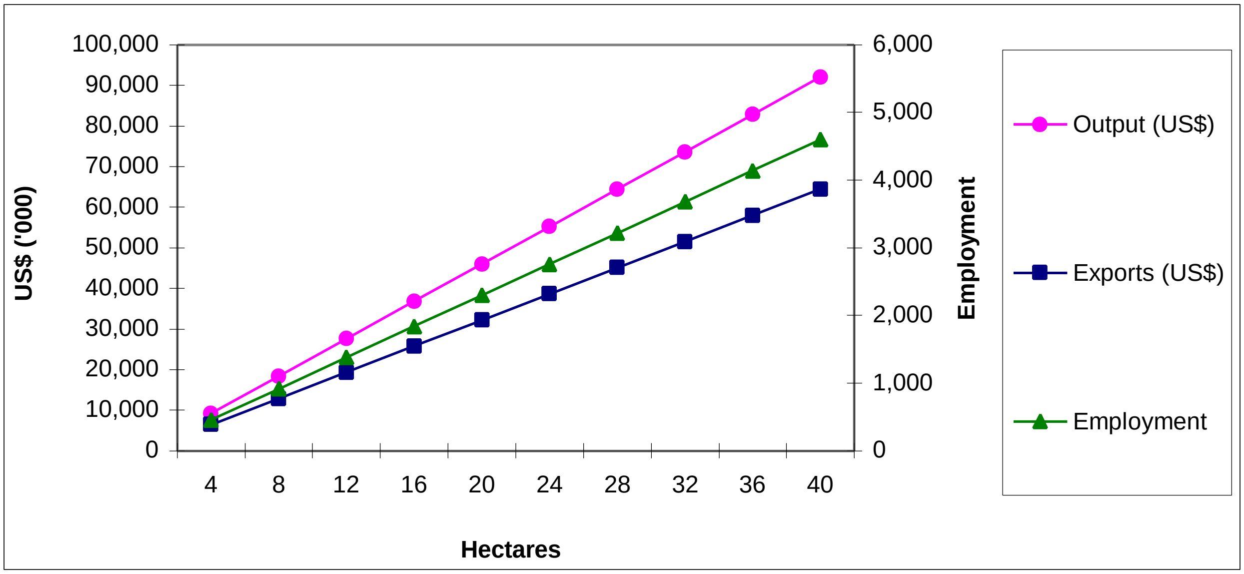
- Be consistent with Aqaba's zoning priorities. Siting of an industrial estate must be undertaken in the context of Aqaba's over-all physical master plan. The estate should not interfere with Aqaba's appeal as a tourism destination, conflict with necessary expansion of residential areas over time, or compromise the airport's ability to increase air traffic and airside services in line with demand.

If a status quo industrial estate is developed in Aqaba along these principles, it should be possible to configure a project that is responsive to market demand, generates a return on investment sufficient to attract private sector developers, and contributes significantly to private sector-driven economic growth in the Aqaba Region. Assuming that the industrial estate is granted QIZ status, investment inflows into the estate will accelerate above the levels indicated by extrapolation of status quo investment trends, but fall short of the investment inflows that could be generated by a full freeport regime. A reasonable range of demand for a QIZ light industrial estate in Aqaba thus lies in the range of 15 to 20 hectares of uptake over five years, and development of 30 to 40 hectares over ten years.

Employment in the estate will represent a combination of labor-intensive activities such as apparel manufacturing and basic assembly operations (the first wave of QIZ investors in the North of Jordan) and more capital-intensive manufacturers serving the domestic and export markets. While employment densities in apparel manufacturing can reach up to 450 workers per raw hectare of land, many modern high value-added manufacturing activities have ratios between 30 and 50 workers per hectare. For the kind of mixed-use industrial estate that is envisioned for Aqaba, an average density of 115 workers per hectare of raw land is reasonable. This level is in the same order of magnitude as employment densities at the Al-Hassan industrial estate, which reaches 96 employees per hectare. At this level, employment in the industrial estate would reach 2,300 after the first 15 hectares are developed, and increase to 4,600 after full build-out of 40 hectares after approximately ten years.

Based on these employment figures, it is possible to estimates general levels of output for the industrial estate. Output per employee in light manufacturing ranges around US$ 30,000 in Jordan, but this output figure is much lower in labor-intensive apparel manufacturing – about US$ 8,000 per worker. Assuming that roughly half of the workers in the industrial estate will be engaged in labor-intensive manufacturing yields an figure of US$20,000 of output per worker, or about US$ 2.3 million of annual output per hectare. At this rate, the industrial estate should generate US$ 35 million in output after 15 hectares are developed, and US$ 92 million of output after 40 hectares are developed. Given the strong QIZ orientation of current investor demand in Jordan, it would be reasonable to assume that roughly 70 percent of this output will be exported – meaning that a 40 hectare industrial estate will generate US$ 64 million in export earnings annually. Figure 4 illustrates the estimated economic impact of a light industrial estate that develops along these assumptions.

Figure 2.4: Estimated annual industrial estate economic impact



These figures represent an order-of-magnitude indication of the growth opportunities for light industrial estates in Aqaba. These estimates will vary depending on the exact estate siting, management and regulatory regime, and public/private sector development split. The following chapter describes in more detail the individual project options for industrial estates, as well as additional projects in the areas of commercial real estate development and business incubation.

3. Project Identification and Description

3.1 Project Selection

The potential projects identified by the TSG team during the initial three-week field mission were based on:

- The Aqaba Freeport feasibility study
- Discussions with ARA, JIEC, FZC, and CAA
- Discussions with the Ports Corporation
- Discussions with JEDCO, IPC, and MIT
- Discussions with AMIR, USAID, and US Embassy staff
- Discussions with private property developers
- A review of existing development projects in Aqaba
- Individual site visits in Aqaba

The initial list of potential development projects to be considered for USAID support is shown in table 3.1 below.

Table 3.1: Initial list of potential projects

	Status Quo		Freeport	
Category	**Project**	**Examine**	**Project**	**Examine**
Industrial property	ARA light industrial estate ARA border industrial estate CAA light industrial estate JIEC light industrial estate FZC light industrial estate	Yes Yes Yes Yes Yes	Northern Industrial Area Southern Industrial Area	Yes No
Commercial property	Town center development	Yes		
Infrastructure	Southern industrial access Southern industrial services Coastal bypass road	No No No	Customs facilities Southern industrial access Coastal bypass road	Yes No No
Other	Aquaculture Business incubation	No Yes		

This initial list focused primarily on light industrial estate projects, but also included a number of other projects, especially in infrastructure projects that could be implemented to rationalize existing land uses and open up new areas for further development. In discussions with USAID, it was decided that the following projects would not be examined further in this assessment of USAID's strategic options:

- Heavy industrial area access. While most of the discussion regarding USAID support for the provision of serviced industrial land has focused on light industrial estate development (possibly with QIZ status), investment in Aqaba to date has centered on large-scale chemical processing complexes. This heavy industrial development has taken place in a haphazard, poorly planned and zoned fashion. Expanding surface transportation access to suitable sites to the east of the existing chemical processing cluster is required to rationalize Aqaba's industrial planning and to ensure that new heavy industrial investments do not compromise Aqaba's scarce and fragile coastal resources. However, USAID expressed concern that such support for heavy industry in Aqaba would be perceived as deleterious to the environment and thus represent a significant public relations liability.

- Heavy industrial area services. In addition to providing access to new heavy industrial sites, there is also a need for expanded industrial utility services and utility improvements on the southern coast to meet future development demand. As was the case with access projects for heavy industry, these projects were excluded from further consideration based on their potential impact on the environment.

- Aquaculture projects. It was suggested that the southern coast area might be an appropriate site for large-scale aquaculture projects akin to similar developments on the Sinai coast (especially in terms of shrimp farming). These projects were also excluded from consideration based on their potential environmental impact, conflicts with zoning priorities along the coast, and an unclear division between private sector investment and public/donor support roles.

The remaining projects that are discussed in the remainder of this report fall into several general areas:

1. Light industrial estate development near the airport, under a variety of ownership/management scenarios

2. Commercial property development within Aqaba Town

3. A business incubation program that could be incorporated into either of the above projects

4. Infrastructure support and technical assistance to accelerate private investment during the freeport's start-up phase (i.e. quickly operationalizing the freeport customs interface)

These projects are described in the remainder of this chapter, under both the status quo and freeport scenarios.

3.2 Status Quo Projects

In the absence of a freeport regime in Aqaba, a number of potential light industrial estate projects opportunities exist. The critical defining elements that differentiate these projects are 1) the possible ownership and incentive structures associated with each, and 2) the relatively less important physical site characteristics. In addition, there exists potential for supporting a commercial real estate development project in the Aqaba Town center. All of these projects could be combined with a business incubation unit to encourage entrepreneurial development and boost local participation in these economic development projects. These status quo projects are described below.

3.2.1 Light Industrial Estates

Development of a light industrial estate in Aqaba is supported by the investor demand indicators that were described in chapter 2. Due to the limited availability of coastal land, environmental factors, topography, and residential zoning priorities, any large-scale light industrial activity should be confined to the Wadi Araba area north of Aqaba Town. In order to limit costs associated with utility access and to maximize potential synergies between light industrial development and Aqaba's strategic transportation infrastructure, light industrial development should thus logically be located in the vicinity of Aqaba airport.

The existing land ownership arrangement in this area dictates that such a development must fall under one of four possible ownership and incentive systems:

1. ARA or CAA land, under national IPC incentives
2. JIEC land under JIEC and IPC incentives
3. FZC land under FZC and IPC incentives

These potential investment configurations and incentive arrangements are summarized in table 3.2 below.

IPC Regime

Under the national IPC incentives and related national policies (including tax laws, duty drawback arrangements, etc.), both private estate developers and tenants benefit from a reasonably generous investment incentive system, including duty-free capital equipment imports, up to 14 years of tax abatement for new investors, and relatively low corporate tax rates. Tenants engaged in manufacturing activities face the low 15 percent tax band. In theory, a private industrial estate development should qualify as a construction project larger than US$ 700,000 and thus also qualify for the 15 percent bracket, but this has not been tested to date, so that the possibility remains that an industrial estate developer could fall under the normal 25 percent bracket.

The existing duty drawback system for exporters is reasonably efficient, and QIZ designation of industrial estates can create significant new export opportunities. Most constraints to investment consist of cumbersome and inefficient administrative procedures that mark virtually all aspects of economic life in Jordan – including the free zones regime and, to a slightly lesser extent, the JIEC regime.

JIEC Regime

Investors in the JIEC-administered estates essentially benefit from all of the national incentive schemes plus an additional two-year tax holiday, as well as exemptions from building and land taxes. More importantly, the JIEC law consolidates a number of the diffuse regulatory and permitting functions (which impede investment in the rest of Jordan) within the industrial estates. This eliminates the need to file separate applications with entities such as the local and regional planning committees and municipalities. In addition, the JIEC allows for sale of land to foreign investors, without approval by the Council of Ministers.

Table 3.2: Industrial Estate Development Policy Framework Options

	ISSUE AREA	IPC INCENTIVES	JIEC INCENTIVES	FRE
Project Structure	**Land ownership**	Aqaba Region Authority (Civil Aviation Authority)	Jordan Industrial Estates Corporation	Free Zc
	Services	None (limited airport services)	Agreement with ARA to provide off-site infrastructure	Existin
	Private sector participation	Full private development possible	No framework for private sector participation Limited interest in developing such a framework	No fran particip Strong framew
	Location options	Between JIEC and FZC property North of JIEC property Border location North of airport Within airport control zone	Existing JIEC property	Existin
Fiscal Incentives	**Tax holidays**	75% reduction over 10+4 years for most area C activities	2 years + IPC incentives	12 year
	Corporate tax rate	15-25% (35% for financial institutions)	15-25% (35% for financial institutions)	15-25% (35% fo
	Other incentives	Capital equipment and spare part GST exemption Accelerated depreciation allowance	Exemption from buildings and land tax Accelerated depreciation allowance	Foreign exempt
Customs Exemptions	**Capital goods**	Yes (Fixed assets and spare parts)	Yes (Fixed assets and spare parts)	Yes (All im
	Imports	Duty drawback system Exemptions for some raw materials	Duty drawback system Exemptions for some raw materials	Yes (All im

Investment Framework	**Land sales**	Yes	Yes	No
	Maximum lease period	None for Jordanian nationals	Flexible	30 year 15 year
	Foreign national lease restrictions	3 years for foreign nationals unless the Council of Ministers grants an exception	None	3 years the Cou excepti
	Lease-end property disposition	Investor retains ownership	Investor retains ownership	Site im Fixed a
Market Access	**Preferential access**	Bilateral protocol trade AFTA-compliant free trade agreements	Bilateral protocol trade AFTA-compliant free trade agreements	Exclud Arab co
	QIZ compatibility	Yes	Yes	Potenti QIZ pro origin

Constraints	**Investment**	Case-by-case review Restrictions on foreign land ownership	Case-by-case review	Limit o Case-b
	Operation	Bureaucratic operating environment Redundant licensing and permitting requirements	Regulated rental rates	Cumbe Local s case-by Main fo operati
	Markets	Relatively liberal QIZ-compatible	Relatively liberal QIZ-compatible	40% lo nationa Exclud
	Other	No precedent for modern private industrial property development	De facto industrial estate development authority Expanded estate development program crowds out private investment	Severe owners assets Lack of against
	Reform efforts	Administrative procedures	Interest in expanding private sector participation in industrial estate operation	New dr Open to zone de Private

The JIEC does, however, represent a de facto industrial estate development monopoly that crowds out potential private developers and limits location choices by private tenants – in terms of both physical location and ancillary estate-based support services.

Free Zones Regime

The Free Zones regime is attractive in theory: It offers investors a 12-year tax holiday, a duty-free processing environment for exporters, and is in theory compatible with the QIZ mechanism. As the regime is currently implemented in Jordan, however, it is completely unsuitable as an investment location for tenants engaged in manufacturing.[9] Because of an extreme interpretation of free zones as being extraterritorial to Jordan (as opposed to simply being located outside the domestic customs territory), free zone tenants can neither use their buildings as collateral with commercial banks nor receive national certificates of origin for their products if local content falls below 40 percent – and even then, certificates are scrutinized on a case-by-case basis.

Free zone tenants also cannot purchase land, and are prohibited from mortgaging fixed assets installed on leased land. Furthermore, investors in free zones cannot sell physical improvements on leased plots to subsequent tenants – those improvements automatically become the property of the FZC at the end of the lease period. Tenants in the free zones regime thus face significant restrictions on the ownership and control of their own fixed assets. Manufacturers who do choose to locate within a free zone then face overly bureaucratic procedures, cumbersome customs transfers, and non-transparent, case-by-case decision-making regarding origin certification and approvals for sales into the domestic market.

As a result of these deficiencies in the free zones regime, the zones managed by the FZC host almost no manufacturing enterprises, and instead serve mainly as commercial and warehousing facilities. The only significant processing that occurs under the free zones regime is large-scale chemical plants located in privately constructed, owned, and operated single-factory free zones. However, these private single-factory zones do not accommodate multiple tenants, and retain all of the policy regime weaknesses inherent in the overall FZC regime.

FZC management is now very interested in expanding its portfolio of zones in collaboration with the private sector, but at present lacks the legal and institutional mechanisms to do so. While a new draft FZC law is once again being discussed within the corporation, there is as of yet no indication that this draft will be submitted to the legislature.

Of the three policy regimes under which a light industrial estate in Aqaba could fall, the national IPC incentive structure and the JIEC-specific incentive framework are thus most

[9] For a detailed analysis of the weaknesses in the FZC regime and its negative impact on export-oriented manufacturing, see Facilitating Private Export Processing Zone Development in Jordan, prepared by The Services Group for the World Bank, 1995.

appropriate to the development of a new estate. The FZC regime is unsuitable for the kinds of manufacturing investments envisioned for an Aqaba industrial estate.

QIZ Status

Whatever policy regime applies to a light industrial estate in Aqaba, it is important to apply QIZ status to that estate. The QIZ regime is not an investment incentive system in itself, but rather an expanded export market access mechanism that increases the range of potential export markets and customers that investors can serve. At present, foreign investor interests in Jordan gauged by the IPC is almost exclusively aimed at QIZ locations. QIZ status should be expanded to an Aqaba estate to maximize Aqaba's strategic location on the border with Israel and broaden the location options for investors motivated by QIZ status. Aqaba will be of particular interest for manufacturers who import raw materials and intermediate products by sea freight from Asia, engage in substantial transformation in line with QIZ requirements to meet the 35 percent GSP content, and then export final goods to the U.S. either via Amman/Haifa or, over the medium term, by airfreight through Aqaba airport.

In addition to these broad policy regimes, the specific sites available for a light industrial estate in Aqaba also have direct implications on the types of industrial estate development options available in Aqaba. Potential sites include:

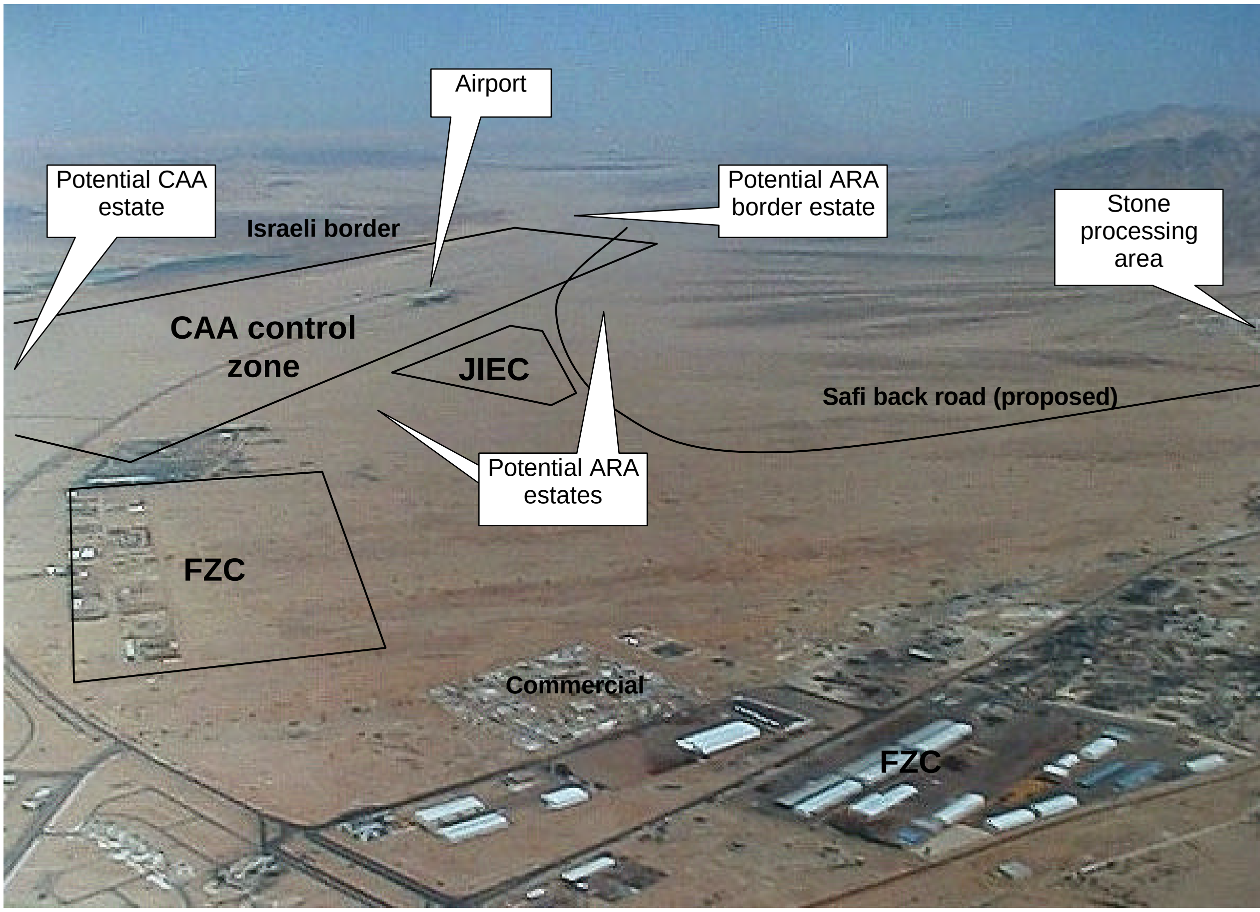
Industrial Estate Siting and Development Options

Figure 3.1 illustrates the existing land ownership structure and potential light industrial development options north of Aqaba Town, in Wadi Araba.

ARA light industrial estate. A light industrial estate established on ARA-controlled land to the east of the airport control zone would essentially mimic the location criteria used in selecting the JICA property in Aqaba: Proximity to the airport, along a major road (the Dead Sea Highway) linking the site to the port and the Amman road, close to the Eilat border crossing, and on flat terrain in Wadi Araba, away from potentially conflicting residential or tourism land uses. Since additional municipal services will have to be brought to such a site, a location just south of the JIEC property would help to limit off-site infrastructure costs.

The ARA would not play an active role in such a development, but rather act as landlord or land privatization agent for a private developer. In addition, service provision and infrastructure improvements would be coordinated through the ARA, but the ARA has limited capacity to fund significant off-site infrastructure investments. A development on an ARA-controlled property would thus represent the most private sector-driven approach towards establishing a light industrial estate at Aqaba.

Figure 3.1: Potential light industrial estate sites



ARA border industrial estate. While the concept has not been thoroughly explored, there are indications that Israel prefers to locate an Aqaba/Eilat QIZ directly on the international border. Such an estate would offer easy access by investors from both sides, expedited customs clearance procedures, and back-to-back manufacturing activities. This kind of estate development has a precedent in the Gateway QIZ project that is currently under development.

Locating such a QIZ estate without interfering with the airport control zone or Aqaba's town expansion needs would mean that a border industrial estate would have to be located north of the airport control zone, some ten kilometers up Wadi Araba. The primary drawback of such a development would be the additional expense associated with providing municipal services over that distance, and in providing road access to the site from both sides of the border.

This kind of development would require the same kind of private sector leadership necessary to implement an industrial estate on ARA land in any other location. Moving ahead with a border location would be appropriate only if there exists convincing evidence that ancillary development on the Israeli side of the border will take place, that streamlined customs procedures can be implemented within the cross-border QIZ, and that Israeli development can be implemented quickly. Recent experience with the peace airport project indicates that domestic Israeli pressure groups may oppose industrial development near Eilat. The risks that this potential obstacle poses for such a project is difficult to assess since there have been no concrete discussions to date regarding the physical siting of an Aqaba/Eilat border QIZ.

CAA light industrial estate. The only other possible border location for an industrial estate would be within the newly expanded airport control zone. Expansion of the control zone to anticipate future airport expansion requirements is a recognized zoning practice intended to prevent the kind of development that has taken place in Eilat: gradual encroachment of residential and commercial development towards the airport until airport expansion space is unavailable and local pressure groups begin to lobby for restricted flight schedules and eventual relocation of airport facilities.

On the other hand, developing a small- or medium-sized industrial estate within the airport control zone would open up border QIZ locations closer to available municipal services and, most importantly, allow for integration of manufacturing activities, airside services, and airfreight access over time. The CAA is open to such a development (which would represent a new profit center for the CAA), and could set aside a 30 to 40 hectare site.

The exact siting of a CAA industrial estate is still unclear. The CAA is now seeking funding for a new airport master plan, and would need to reconcile the industrial estate with the physical requirements of the peace airport (which will probably entail a separate Israeli terminal, also located on the border). The existing road network suggests that an area in the south-west corner of the airport control zone could be developed quickly.

The CAA would serve as landlord for such a development, and as concessionaire for airport-related services and, eventually, airfreight and courier service providers that may choose to locate at such an estate. The combination of border QIZ and integrated airport services activities could make such a development very attractive, and airport-related concessions could serve to “sweeten the pot” and attract additional interest by private developers. The most problematic aspect of this location option would be the effective containment of the estate to prevent spill-over of industrial activity into the rest of the airport control zone that is required for airport expansion.

JIEC light industrial estate. The JIEC property is located across from the airport entrance, at the intersection of the Dead Sea Highway and the proposed Safi Back Road Link to the Desert Highway. The Safi Back Road project is currently on hold, so the advantage of the JIEC site over other potential sites across from the airport in terms of road transportation access remains marginal. As with other sites near the airport, off-site infrastructure will be required to link the site to municipal services.

The JIEC site attributes are thus largely identical to those of an ARA industrial estate near the airport. The main difference in developing the JIEC site is that the land is already owned by the JIEC and thus could 1) offer investors access to JIEC incentives and benefits, and 2) represent a mechanism for a development partnership between JIEC and a private developer. This approach would simplify investment procedures and off a strong institutional anchor and project champion to facilitate the first private industrial estate development in Jordan. Joint development would also neutralize the threat of unilateral development by JIEC crowding out private investment in Aqaba. It remains unclear, however, to what extent JIEC is willing to enter into a full partnership with private developers instead of the limited private concessions for estate services that are in place in existing JIEC properties. Such a partnership would also require changes to JIEC's statutory authority – at a minimum though a decision by the Council of Ministers, and possibly through an amendment to the JIEC law.

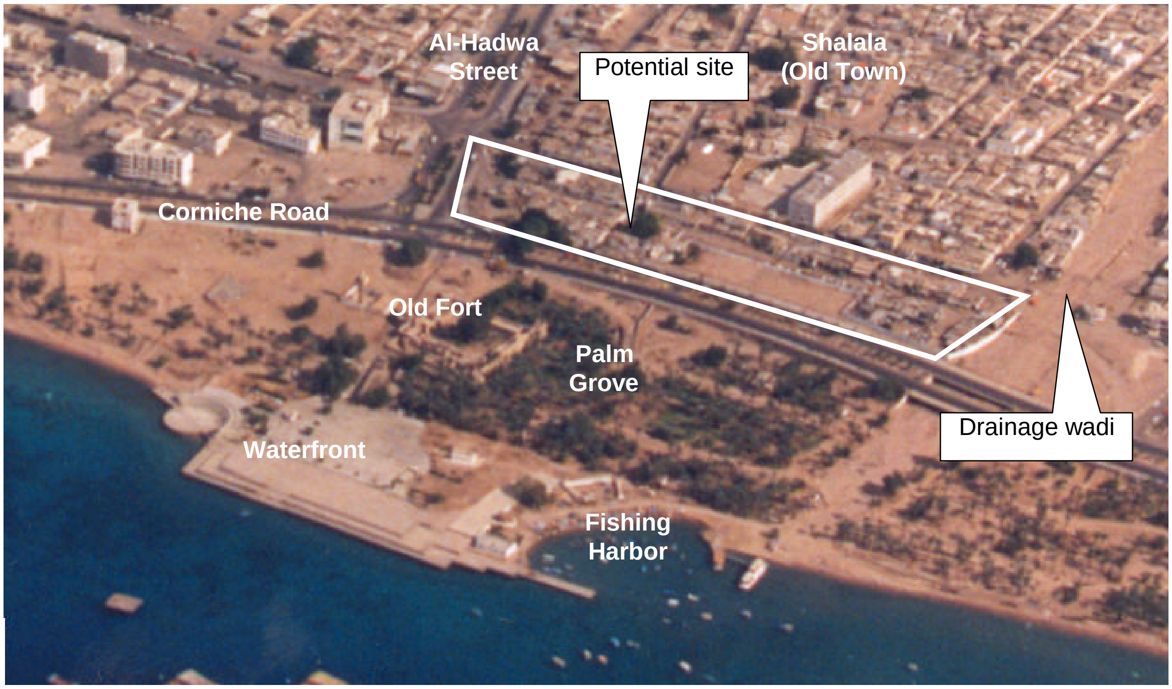
FZC light industrial estate . The existing FZC property is unsuitable for industrial development because it lies directly in the path of Aqaba's future residential expansion plans. Even if the property were situated in a more suitable location, major deficiencies in the free zone policy regime would make such a development unattractive for manufacturers. While the FZC is very enthusiastic about cooperating with private developers, a joint industrial estate development would not be successful.

However, if investors in a light industrial estate are interested in benefiting from duty-free storage facilities, then an ancillary free zone facility could be established at such an estate. If the FZC is interested in making its facilities more accessible to manufacturers, then a modern, dedicated input storage facility with streamlined entry/exit procedures (perhaps in combination with the existing duty drawback scheme) could be a valuable industrial estate support service. The existing free zone regime itself, however, is not an appropriate industrial estate development vehicle.

3.2.2 Commercial Real Estate

An interesting opportunity for commercial property development project within Aqaba Town exists at the western border of the old Shalala area, along the Corniche Road, across from the old fort. The 2.5 hectare site is bordered to the south by a drainage wadi and to the north by Al-Hadwa Street. A prime piece of frontage property is currently taken up by small and informal automobile repair workshops and low-quality housing for foreign workers. Land ownership is fragmented, and consists of a mixture of informal occupancy, usage rights, and formal leases.

Figure 3.2: Potential commercial real estate development site



The location of this property offers the opportunity to use an integrated, multi-use commercial property development to achieve a number of public benefits while providing valuable commercial real estate in Aqaba Town. A well-designed development that is executed in local vernacular architecture and integrates retail and office space, indoor/outdoor restaurant/café space, and ocean view apartments with attractions such as public market/suq facilities, outdoor seating, and information services could help to:

- Link Aqaba's Old Fort, waterfront, and palm grove attractions with the underdeveloped Shalala area
- Stimulate foot traffic through the commercial center into the Shalala, creating new entrepreneurial SME opportunities
- Link the developed northern beach and town areas with the relatively undeveloped southern beach area, encouraging foot traffic and ancillary development along the Corniche Road

Capturing these public benefits is contingent on two factors. First, the diffuse and partially undocumented land ownership issues that affect the site will have to be resolved. A number of approaches are possible, including relocating workshops to better-serviced areas, buying individual parcels from current owners, offering current owners shares in a dedicated land development company, or any combination of these options. The final aim should be to rationalize land uses, create a new commercial development engine in the heart of Aqaba Town, and relocate productive activities to areas better suited and serviced to accommodate them. The development should not be seen as a decision made at high levels of government and imposed on local residents and current owners, but rather as an opportunity to benefit from a more dynamic local economy.

Second, the physical design and management of the commercial development must be carefully balanced to create an attractive, dynamic atmosphere for retail sales, food and beverage consumption, office space leasing, and high-quality residential living. The design should be based on best practices in integrated waterfront development, and sourced through an international architectural competition.

The Jordanian private sector is more experienced in undertaking commercial and mixed-use residential developments than in developing industrial property. Finding a development group to implement this project should thus be relativelystraight-forward as long as the overall design mix represents an appropriate blend of profit centers and public spaces and amenities. The development will not require significant off-site infrastructure investment. However, some site preparation work, including demolition of existing structures and some soil remediation will be required.

3.2.2 Business Incubation

In addition to various forms of off-site infrastructure provision, site preparation work, and project design assistance, another avenue for providing USAID support in Aqaba would be to incorporate a business incubator or shared workspace facility into the industrial and commercial property projects described above. A traditional business incubator would house small start-up companies developing new products and support them with entrepreneurial skills training, marketing assistance, and general business services. A shared workspace facility would provide many of the same services, but also accommodate existing small enterprises.

In the context of a light industrial estate, an incubator/common workspace facility would provide small workshop/office areas with access to storage facilities and shared support services and equipment such as precision tooling, calibration, or CNC machinery. In the context of the town center development project, a small handicraft incubator could be attached to a public market/suq facility that offers small-scale, high-quality retail space on short-term and flexible lease terms.

3.3 Freeport/SEZ Projects

If the World Bank-financed Aqaba Freeport project design is implemented, this transformation of Aqaba and its environs into a large-scale duty-free area with radically liberalized investment procedures and simplified incentive structures will present USAID with very different opportunities to support private sector growth. Under the freeport regime, the ARA will be replaced by an Aqaba Freeport Authority (AFA) with significantly enhanced powers and responsibilities. As the sole economic planning and development authority in Aqaba, the AFA will assume control of all government land in the freeport are, including land currently owned by the JICA and the FZC. The only exception is the existing airport control zone, which will remain under the CAA.

Under this freeport regime, planning and zoning controls will be enhanced, and new light industrial development will take place within a 500 ha Northern Industrial Zone located along the re-aligned Desert Highway and bounded to the south by a new road extension that will connect the border post road with the Desert Highway. The location of this Freeport Northern Industrial Zone is indicated in figure 3.3 below.

3.3.1 Northern Industrial Zone

The planning of industrial zones in the Aqaba Freeport followed aspecific set of objectives:

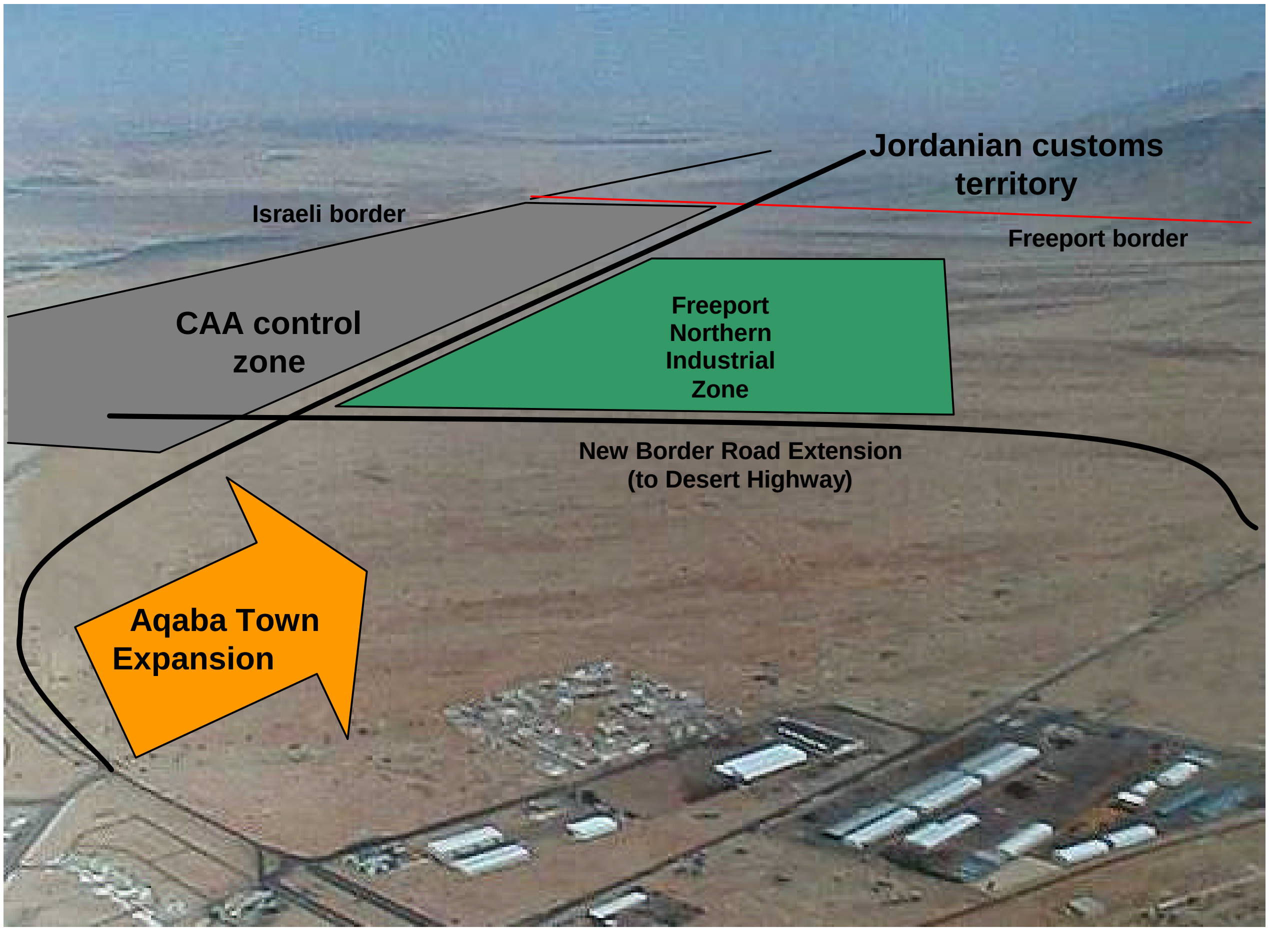
- To maximize the functional dependency and linkages between the industrial areas and other adjacent land uses such as commercial, residential and tourism development
- To optimize the potential use of land which has been allocated for industrial development in the existing ARA Master Plan
- To enable efficient traffic circulation and divert heavy traffic away from Aqaba Town and the tourism areas on the coast
- To minimize the adverse environmental impacts of industrial land use on the South Beach area and the tourism activities related to the Gulf of Aqaba

In order to rationalize the fragmented distribution of existing and planned light industrial development in Aqaba, a total of 500 ha has been zoned in the freeport master plan for a Northern Industrial Zone for light industry. This zone is located adjacent to the realigned Dead Sea Highway and separated from the area reserved for future expansion of Aqaba Town by the proposed new road linking the Desert Highway to the Dead Sea Highway.

The planning objectives for this Freeport Northern Industrial Zone are:

- To transform the area adjacent to the airport into a comprehensively planned industrial park for medium and light (clean) industries which is of high quality, international standard development
- To capitalize on the proximity of this zone to the airport by providing a niche location for industries which are dependent on air freight services
- To facilitate the creation of a development corridor towards the north of Aqaba Town along the Wadi Araba, which will be a clean, modern, self-contained urban/industrial township

Figure 3.3: Freeport Northern Industrial Zone



- To provide an efficient transportation network for passengers and freight by road and rail (in the future) and develop modern, efficient infrastructure
- To facilitate the residential development in the north of Aqaba Town by providing a good balance of jobs-to-dwelling units ratio to minimize daily commuting in the freeport
- To be able to take advantage of cross-border regional linkages in the event that the potential for regional economic cooperation is realized in the future
- To provide generous green and open spaces and an attractive, functional, world-class freeport environment for people to work and live
- To impose a higher architectural design quality on all buildings, especially factories fronting the Dead Sea Highway (and the new road linking the Dead Sea Highway to the Desert Highway) as these will be the showpiece of the industrial park

Based on the objectives set out, the freeport planning concept proposed for the Northern Industrial Zone is the creation of a focal point for manufacturing activities in the Freeport. The flat terrain is appropriate for industrial development and cost effective for industries due to minimal earthworks required for site preparation. Infrastructure development costs are also expected to be low due to the proximity to the existing infrastructure network of Aqaba Town. The road linking the Dead Sea Highway and the Desert Highway will constitute a natural buffer zone between the residential and commercial development of Aqaba Town and the Northern Industrial Zone. Nonetheless, the zone will be an integral component of the future expansion of Aqaba Town.

The Northern Industrial Zone should be subject to good urban design control practices according to the guidelines and standards proposed in the freeport study. There should be a minimum investment criteria stipulation and design controls to ensure that those factories situated in the prime locations fronting the major roads portray a "world-class manufacturing facility" image. Direct access from the primary roads should be discouraged. Instead there should be a hierarchy of roads designed for the area to ensure efficient traffic circulation. There should also be truck parking areas, common user yards for container storage and repair as well as public transport terminals provided within the zone.

While the zone will offer fully serviced industrial plots for direct allocation to potential industrial investors, it is proposed that there should also be some ready-built factories available for those manufacturers who require a quick start-up. Some foreign investors would prefer to purchase such ready-built units due to savings in time and cost. These factory units are normally between 2000 to 4000 m^2 in size.

Within the large Northern Industrial Zone, there is also opportunity to develop sub-zones in order to cluster similar industries together within one defined area. The creation of such sub-zones will minimize any adverse impacts that some industries may have on other neighboring industries. There are also other advantages in terms of marketing, environmental control, sharing of common facilities and synergy through linkages. Examples of such sub-zones here are a warehousing area, a technology park, a pharmaceutical zone and an Information Technology Center.

3.3.2 Aqaba Freeport Technical Assistance Support

The FSEZ implementation process will represent a major challenge on the new Freeport Authority, both in terms of its internal capacity and in terms of the wide range of technical expertise that will be required in starting up the Freeport's operations. Because of this challenge, and because the FSEZ design is based on international best practices approaches to a number of technical areas, the AFA will require technical assistance in five key areas:

6. Legal and Regulatory Implementation
7. Technical Support to the Aqaba Freeport Authority

8. Technical Support to Freeport Customs
9. Infrastructure Planning Support
10. Public Outreach

Legal and Regulatory Implementation

The FSEZ feasibility study and implementation plan contains of model laws, regulations, and standard operating procedures necessary to operationalize the Aqaba Freeport. However, it is anticipated that some changes to the law and regulations will be made to the model Freeport Law and implementing regulations as they pass through the Jordanian legislative process. In order to avoid any unintended complications that these changes may have on the over-all FSEZ regime, limited short-term technical assistance should be provided to interpret the over-all impact of any proposed changes on the FSEZ's feasibility.

<u>Inputs on Freeport Law Promulgation</u>: The Model Freeport Law disapplies a wide range of existing legislation from the FSEZ, and will likely encounter opposition from institutions that are unwilling to surrender their jurisdiction over Aqaba. Such proposals that are made to change the Model Freeport Law may have broader implications for the over-all FSEZ regime that are not. In order to focus the legislative debate, technical assistance should be provided to fully interpret the feasibility impacts of proposed changes and thus inform public debate. This requires the creation of an effective interface between proponents of the proposed FSEZ regime and the arguments voiced by its critics to tackle specific issues as they arise.

<u>Implementation of Regulatory Framework</u>: Once the Freeport Law is passed, advisory services should be provided to ensure that all changes to the Model Freeport Law are fully reflected and accommodated in the FSEZ implementing regulations to avoid any undesired effects on the FSEZ framework. This will require a multi-disciplinary effort in specialized technical areas including customs, taxation, and real estate finance; implementing new procedures; negotiation among technical authorities; and assisting with the over-all policy regime transition in its earliest stage.

Technical Support to the Aqaba Freeport Authority

The greatest need for long-term technical assistance will bewithin the new Aqaba Freeport Authority. While the AFA will build on the strengths and capacity of the ARA and relevant line ministries, there remains a lack of Jordanian experience with real decentralized and private sector-oriented institutional design and operation, as well as a lack of experience with liberal, de-regulated free zone/freeport development. To overcome this obstacle, the Freeport Authority should be supported with an integrated long-term institutional support program consisting of the following four components:

<u>Long-term Freeport Management Advisor</u>: The new Freeport Authority will be created from the ground up through the Freeport Law. The organization will have to grow rapidly to assume the broad range of responsibilities it is to carry out within the Freeport, and to

work effectively with line ministries in implementing the broader FSEZ regime. The Freeport Authority will require guidance in both freeport institutional development and operations. This guidance should be provided by a senior expert with hands-on freeport management experience who can advise the Freeport Authority president and senior management on a long-term resident basis during the first years of operation.

Long-term Industrial Estate Development Advisor: In addition to the management advisor, the Freeport Authority will require specialized assistance in developing its commercial/industrial property portfolio in the Northern Industrial Area, Southern Industrial Area, and Al Rabia Technology Park. The industrial estate development advisor will assist the Freeport Authority in determining necessary core development activities to be undertaken by the AFA and design and market appropriate private sector estate development projects. This assistance will entail the full range of design, marketing, tendering, and regulatory work required to maximize private sector estate development in the Freeport.

Long-term Investment Promotion Advisor: Beyond attracting private investment in industrial estates, the Freeport Authority will have to quickly develop an investment promotion capacity to implement the FSEZ marketing campaign for attracting inward investment. A full-time advisor will be required to jump-start this process through a combination of institutional capacity-building and hands-on promotion work during the first years of FSEZ operation. This investment promotion support function should be closely coordinated with the industrial estate development function.

Short-term Management Assistance Activities: In addition to the long-term assistance described above, the Freeport Authority will need to access expertise in a broad range of technical areas that the AFA does not currently perform. These areas include, among others:

- Management information systems
- Physical security
- Environmental planning and monitoring
- Health & safety
- Tourism development and marketing
- Tourism product development
- Statistics and monitoring systems
- Economic policy advocacy
- Port systems, operations, and supervision
- Registration systems
- Real estate management

Technical Support to Freeport Customs

The new Freeport Customs force (which reports directly to the Freeport Authority) will also require technical assistance in order to effectively take over the limited customs control functions remaining within the Freeport area and to coordinate efficiently with the national Customs Department in maintaining customs control at the Freeport perimeter. Proper customs control is fundamental to both the Freeport's operation as a duty-free area and to establishing a public perception of the Freeport as an economic growth center rather than a smuggler's haven.

<u>Long-term and Short-term Support to Freeport Customs</u>: Freeport Customs will require an experienced customs specialist to help establish a modern organization and quickly implement procedures that will allow Freeport Customs to operate on "day zero" of the FSEZ regime while remaining flexible enough to grow over time. This advisor will require support from specialists in MIS/ASYCUDA, x-ray and other inspection equipment, risk profiling, and training in a number of areas. These technical assistance activities should also include participation by members of the Customs Department as they establish their new presence at the Freeport perimeter.

<u>Merchandise Control System Assistance Activities</u>: Freeport Customs will also require specialized assistance in the design and implementation of the Freeport's merchandise control systems. This assistance will include the overall MIS, smart card technology, and point-of-sale goods tracking hardware and software design, as well as training of merchants and customs officers in operating the system to track goods, manage duty-free inventories, and assess tariffs and taxes at the Freeport border.

Infrastructure Planning Support

The Freeport Authority will also require some specialized inputs in infrastructure planning. This support should not duplicate the local substantial expertise in engineering and physical planning already available in Aqaba, but build on this pool of talent in specialized areas.

<u>Privatization Advisory Services</u>: The Freeport Authority will require significant assistance in designing and implementing a privatization strategy that addresses all the real estate transaction, port restructuring, and infrastructure provision components of the Freeport development strategy. Technical assistance should be provided to help package and market existing opportunities, address new privatization issues over time, and implement a sound regulatory/management framework for privatization in the Freeport.

<u>Infrastructure Planning Advisory Services</u>: The Freeport Authority will also require assistance in some physical planning disciplines in which Jordanian expertise is not entirely appropriate for FSEZ implementation. These include, among others, urban planning, tourism planning, and landscape architecture.

Public Outreach

Implementation of the FSEZ regime will also require a concerted public education and communication campaign to educate Jordanian society about the nature and rationale of the Aqaba Freeport. Technical assistance in the design of this campaign should be provided to build a positive image of the Freeport and enlist the public in supporting the anti-smuggling campaign.

3.3.3 Freeport Customs Infrastructure

At the core of the freeport implementation process lies the abilityof the Government of Jordan and the AFA to efficiently transform the freeport are into a large-scale duty-free area on “day zero” of the freeport regime. This requires rolling back the domestic customs territory to the freeport boundary, implementing the Freeport Customs Force, and liberalizing the freeport environment without incurring undue leakages of undutied goods into Jordan. This transformation process will be a major challenge for both the existing Customs Department and the new Freeport Customs Force. It will require seamless implementation of a new Freeport Customs institution, shifting of existing customs control and enforcement responsibilities and procedures, and a re-tooling of customs resources, equipment, and infrastructure.

Implementation of the new customs regime is critical to maintaining order and continuity in customs control during the conversion of the core Freeport area to a duty-free environment while a streamlining of controls and procedures is necessary to implement an over-all Freeport regime based on efficient, business-friendly services.

The new Freeport Customs force will take over a number of functions currently being handled by the national Customs Department within the core Freeport area. Freeport Customs must be created from the ground up as an institution, integrated with new Freeport systems (especially the merchandise control system), and interface effectively with the Customs Department in carrying out its functions.

The existing national Customs Department, on the other hand, must share existing functions with the new Freeport Customs organization, and modify its remaining audit/inspection functions within the Freeport area while rolling back the actual border of the Jordanian customs territory to the edge of the Freeport. This process must be seen not as a simple relocation of existing customs posts, but should prepare the Customs Department to 1) implement streamlined procedures in coordination with Freeport Customs, and 2) anticipate the processing of increased trade volumes that will arise as the Freeport economy grows.

Streamlined procedures will be implemented through automated systems, risk profiling and management, modernized customs technology, and rationalizedcheck points and traffic routing. These procedures and systems will be implemented in a manner that anticipates increased trade and traffic flows. The current volume of imports through

Aqaba port, airport, and the Wadi Araba and Dereh border crossings is primarily destined for the rest of Jordan, with relatively little consumption in Aqaba itself. As the customs territory is rolled back to the Freeport border, imports through Aqaba into the customs territory will increase over time because:

- Existing import flows into the customs territory will continue to rely on Aqaba port, and will increase as the Jordanian economy grows.
- Exports from the Freeport are projected to grow from US$60m in the first year of Freeport operation to US$300m after only five years. A concomitant increase in dutiable imports from the Freeport into the customs territory will also occur.
- Easing of sanctions against Iraq will ultimately increase transit cargo moving through Aqaba and across the customs territory, though not in the same volumes as before the Gulf War.

While these increased imports and concomitant workload increase for the Customs Department will be offset to some degree by consumption within the Freeport, shifting of future production to the Freeport, and technology- and systems-based efficiency improvements, the customs presence at the Freeport perimeter will still need to be streamlined and upgraded from the existing Aqaba Customs House structure and capacity.

4. Project Screening

4.1 Application of Screening Criteria

Each of the projects identified for analysis has been analyzed for suitability for support under a set of criteria taken from the Terms of Reference for the study. The results of this analysis are compared in a matrix and conclusions are then drawn on the best projects for support from the USAID perspective.

The criteria used for the analysis and the way in which they are applied are described briefly below.

Overall fit with USAID Objectives and Activities

Private Sector participation. It is clear from the analysis in Section 2 that there is not sufficient participation by the private sector in the provision of industrial space in Jordan. This sector is dominated by the large public sector providers – ARA, JIEC and the FZC. The benefits that have accrued elsewhere from an increase in private sector participation include: increased levels of service to the end user, transparency regarding subsidies being made available to industrial estate tenants, sparing of public funds and reduction in State bureaucracy, shared risk between the public and private sectors, and the liberalization of the property market and the unlocking of the wealth associated with this.

The application of this criterion has two aspects: the degree to which the private sector is likely to participate i.e. the percentage of capital invested and the percentage of risk taken on; and the degree to which competition can be stimulated between various private sector participants. This second aspect is important to ensure that a State monopoly is not just replaced by a private sector monopoly.

Sustainability/competitiveness. Cost of production is usually one of the key market forces that drives investment decisions in light manufacturing industry. Consequently the cost of land and buildings to the manufacturers is a significant factor in their calculations. Real estate projects catering to this market usually require reasonably large capital investments up front, and a fair degree of certainty that the market will take to the product.

These factors of investment size, risk, and price sensitivity combine to map out the conditions under which a project is likely to be attractive to the market and still make enough return to satisfy the investor.

Under this heading, the most likely risk/return profile for the project is examined.

Sectoral suitability and fit with other USAID/donor initiatives. While the development of an expanded manufacturing sector in Jordan is clearly within USAID's objectives, this is not necessarily true of all manufacturing activities. Other factors intrude such as the impact on the environment, on social conditions within the country, and the degree to which these projects would happen in any event without donor support. These factors are evaluated under separate headings.

On the other hand, the US Government instigation of the QIZ regime stems from the effectiveness of the regime in providing an employment boost in a short time, and in providing increased opportunities for cross-border co-operation in the Middle East during this critical time for the Peace Process. This is an indicator of the types of sectors that fit USAID's objectives.

The suitability and fit factor is applied on the basis of information about other donor-supported projects that came to the attention of the study team during the course of the study.

Timing. The assessment of the candidate projects rewarded projects that could be mobilized quickly, and which could absorb funding in the upcoming fiscal year.

Economic Impact

Job creation – numbers and value added. Under this heading an estimate was made of the number of additional jobs that would be created as a direct result of theinitiative taking place. This is calculated based on the international norms for employment per US$ invested in the activities being planned, scaled appropriately for the Jordanian situation. Value added in production is calculated based again on international norms, scaled by an appropriate factor for the Jordanian situation.

Investment in the economy, source and amount. The overall investment that the project will stimulate in the economy is calculated over a10 year period.

The significance of the source of the investment is that projects that open up new sources of investment (in terms of Geographical location or type of investor) offer the additional benefit of increasing the diversity within the investor community in the country.

Exports generated. Given the small size of the domestic economy in Jordan, and its relative regional advantages in terms of cost and market orientation, projects that address the export market are preferable to those just addressing local markets.

Downstream, cluster and support effects. Aqaba is a relatively remote location when compared to Amman. The economy there is not very diversified, relying mostly on the Port, some tourism, and heavy industry. The diversification of the economy will take time, but some sectors of activity have the effect of catalyzing the process. These are the essential service sectors such as transportation, utilities, professional services, and any project that stimulates an increase in the provision of these services has an added advantage.

Some industries develop in clusters, where they can support each other and essentially dip in to the same labor and expertise pool and use economies of scale to reduce the costs of their inputs. Industries that cluster usually come in waves, so succeeding in attracting a few results in a greater benefit than industries that tend to go it alone.

Finally, projects that tend to build on the downstream potential of existing sectors are getting head start and so can often deliver more economic benefit for a smaller investment. They are likely to be more successful, and stay longer because they integrate vertically into the existing economic activities.

Robustness of the project to economic or regional changes. Clearly Jordan and the Middle East in general is a risky environment at present. Aqaba is at the junction of four countries – Jordan, Israel, Saudi Arabia and Egypt. This presents significant opportunities, but also many threats given the current situation. Projects that do not rely heavily on one investor (e.g. Israel), or that can establish their own identity over and above the Jordanian identity, will have a better chance of surviving and prospering in the long run. This works in both directions – projects that start out depending on international goodwill to make up for lack of efficiency will find themselves stranded and unable to compete when world attention moves on.

Fit within national strategy. Wherever possible, the projects being assessed should fit squarely within the relevant Jordanian national strategy. The exception to this would be in a case where the national strategy has not yet developed to accommodate the project and that the project itself could be used as an instrument to shape national strategy. An example of this would be forcing JIEC to provide land to a private developer.

Environmental Impact

Environmental and planning suitability of the project location. The physical environment in Aqaba is unique and precious, and all projects will be evaluated to ensure that they comply with the appropriate environmental standards.

Social Impact

Negative/positive short- and long-term social effects. Here, social effects are evaluated such as the need for relocation brought about by the projects, the impact on increase in the population, impact on gender issues, impact on traditional values.

4.2 Light Industrial Estate Projects – Generic Attributes

In examining the performance of the proposed light industrial estate projects under the evaluation criteria listed above, the first step is to separate the generic (i.e. common) characteristics from the those that vary from site to site.

Table 4.1 below examines the characteristics that can be expressed numerically and quantifies the various costs and outputs based on the demand assumptions developed in Sections 2.1 and 2.4. The headings in Table 4.1 are discussed briefly below.

Development Rate. Two rates are considered. A high growth rate sees 40 ha of raw land developed over 10 years. This is equivalent to the “with Freeport” demand scenario developed in the TSG Freeport Study and about one quarter of the current rate of development of QIZs in Amman[10]. A low growth rate sees 30 ha of raw land developed over a 10-year period. Allowing for the positive impact of the QIZ status, this development rate lies between the “non-Freeport” and the “with Freeport” development rate projected in the TSG Freeport Study.

Sites Available. A net/gross ratio of 75% is used. It assumed that 75% of raw land becomes available as developed sites – the remaining 25% is used for common spaces, circulation, parking etc.

Building Area. A Floor Area Ratio (FAR) of 60% is used – that is, 60% of every net ha of land ends up under floor. The combination of the net/gross ratio and the FAR indicates that every ha of raw land yields 4,500 m2 of built factory space.

Onsite Development Cost. This is the cost of providing the internal infrastructure to individual sites within the industrial estate. It includes internal roads, water and sewerage systems, electricity distribution, ducting for telecommunications, stormwater drainage, fencing and entrances.

It does not include significant common buildings such as large administration blocks, on the basis that the private sector does not normally require these.

Standard Factory Bay (SFB) Development Cost. This is the cost of building the typical unit that is required by a light manufacturer such as an apparel assembly plant, or a footwear plant. The SFB cost is included to give an idea of the overall investment that might be made by the private sector property developer if he were to construct the buildings and lease them out to incoming industries.

In practice, the estate will probably be operated through a combination of sale and lease, where some plots are sold and others are leased, and where the developer builds some industrial buildings for lease and allows the industrialist to build his own factory on other plots. The exact policy that will be adopted in this regard will depend on the outcome of a detailed market analysis – which mode of transfer would the market favor, and the financial imperatives of the developer – he may need a certain mix of capital and recurrent cashflow.

Direct Employment. This is based on industry norms for the types of industry likely to be attracted to the industrial estate in Aqaba. Since this is a new estate being planned for reasonably dense development, a population per ha figure slightly higher than Al Hasan industrial estate in Irbid is used – 115 persons employed per ha. In theory it is possible to

[10] The extension to the Al Hassan Industrial Estate in Amman is approximately 70 ha in area, and is fully booked before estate development is complete. According to The Ministry of Trade and Industry, 22 companies currently have facilities under construction in the extension.

accommodate up to twice as many people but given Aqaba's abundance of land and the relatively undeveloped and small nature of the light industrial base, it is unlikely that high densities will be needed or achievable, especially in the early years.

Water and Electricity Consumption. These figures are based on industry norms. The most significant issue here is whether to pursue the strategy, either short-term or long-term, of using desalination to provide all of the additional water required by the new industrial estate. This is an issue that should be addressed in the feasibility study for the industrial estate, if that stage is reached. The offsite infrastructure cost estimates of the industrial estates briefly examines both possibilities – with desalination and without desalination.

Annual Industrial Estate Output. This represents the sales of the industrial estate and can be used as a basis for exports, imports, and foreign exchange impact calculation. The US$20,000 per annum figure is taken as half-way between the traditional low value added output/employee in the Jordanian apparel sector of about US$7,000 and the higher value US figure for similar activities of over US$36,000[11].

Industrial Estate Projects – Individual Attributes. In addition to the generic attributes listed above, each of the industrial estate projects has its own individual attributes. These are outlined below.

Off-site infrastructure Costs. These costs include the provision of a water supply, connection to the sewerage system, connection to the nearest high tension (33kV) supply line and the provision of a substation, and the provision of road access.

[11] See section 2.4 for a more detailed explanation.

Accelerating Private Investment in the Aqaba Region: Strategic Options

Quantitative Description Matrix - Industrial Estate Projects

Basic assumptions for cost and output determination - 10 years

Development Rate (ha	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8
(Yr1 determines development rate								
High growth	4	8	12	16	20	24	28	32
Low growth	3	6	9	12	15	18	21	24
Sites Available (ha								
Net/gross land =	75%							
High growth	3	6	9	12	15	18	21	24
Low growth	2	5	7	9	11	14	16	18
Building area (m2								
Floor Area Ratio =	60%							
High growth	18,000	36,000	54,000	72,000	90,000	108,000	126,000	144,000
Low growth	13,500	27,000	40,500	54,000	67,500	81,000	94,500	108,000
Onsite Development Cost - site only, US$ cumulativ								
Cost/gross ha =	150,000	US$						
High growth	600,000	1,200,000	1,800,000	2,400,000	3,000,000	3,600,000	4,200,000	4,800,000
Low growth	450,000	900,000	1,350,000	1,800,000	2,250,000	2,700,000	3,150,000	3,600,000
SFB Development Cost - US$ cumulative								
Cost/m2 of building =	150	US$						
High growth	2,700,000	5,400,000	8,100,000	10,800,000	13,500,000	16,200,000	18,900,000	21,600,000
Low growth	2,025,000	4,050,000	6,075,000	8,100,000	10,125,000	12,150,000	14,175,000	16,200,000
Direct employment in manufacturing (persons)								
Pop/ha = 115								
High growth	460	920	1,380	1,840	2,300	2,760	3,220	3,680
Low growth	345	690	1,035	1,380	1,725	2,070	2,415	2,760
Water Consumption (m3/day								
Average = 50	m3/ha/day							
High growth	200	400	600	800	1,000	1,200	1,400	1,600
Low growth	150	300	450	600	750	900	1,050	1,200
Electricity Consumption (mVA								
Consumption in MVA/ha =	0.50							
High growth	2	4	6	8	10	12	14	16
Low growth	2	3	5	6	8	9	11	12
Annual Industrial Estate Output (US$								
Output/employee (US$/person/year) =		20,000	US$					
High growth	9,200,000	18,400,000	27,600,000	36,800,000	46,000,000	55,200,000	64,400,000	73,600,000
Low growth	6,900,000	13,800,000	20,700,000	27,600,000	34,500,000	41,400,000	48,300,000	55,200,000

Table 4.2. below summarizes the findings for off-site infrastructure costs.

Table 4.2: Off-site Infrastructure Costs

SUMMARY - OFF-SITE INFRASTRUCTURE COSTS (US$)

	ARA Light Ind Est	ARA Border Ind Est	CAA Light Ind Est	JIEC Light Ind Est	FZC Light Ind Est
Case 1 - no desalination					
Offsite Capital Cost - Water suppl	290,000	1,130,000	530,000	530,000	170,000
Offsite Capital Cost -Sewerag	1,150,000	1,650,000	950,000	1,250,000	1,150,000
Offsite Capital Cost - Electricity supply	670,000	2,490,000	1,190,000	1,190,000	410,000
Total Cost offsite roadworks (US$	250,000	1,000,000	1,000,000	250,000	-
Offsite total:	2,360,000	6,270,000	3,670,000	3,220,000	1,730,000
Case 2 - desalination					
Offsite Capital Cost - Water suppl	6,480,000	7,200,000	6,240,000	6,600,000	6,420,000
Offsite Capital Cost -Sewerage	1,150,000	1,650,000	950,000	1,250,000	1,150,000
Offsite Capital Cost - Electricity supp	670,000	2,490,000	1,190,000	1,190,000	410,000
Total Cost offsite roadworks (US$	250,000	1,000,000	1,000,000	250,000	-
Offsite total:	8,550,000	12,340,000	9,380,000	9,290,000	7,980,000

Institutional Considerations. Four of the five industrial estate projects have a unique institutional character, connected to the sponsoring institutions. Since ARA is the sponsor for both the light industrial estates opposite the airport and at the border north of the airport, these projects would share the same institutional characteristics.

The other sponsoring institutions are Jordan Industrial Estates Corporation, the Free Zones Corporation and the Civil Aviation Authority.

The primary impact of this characteristic in the evaluation criteria is in the degree to which the planned industrial estate fits within the national strategy as expressed through the institutional policies of the sponsoring institutions.

4.3 Screening Matrix

The range of criteria for project evaluation is wide, and the number of projects reasonably large, so where appropriate each criterion is evaluated separately. However, as mentioned previously, the evaluation result under some criteria are similar for all industrial estate projects, so in this case the industrial estate projects are grouped.

The evaluation is presented in tabular form below. It should be noted that the comments under each criterion for each project provide input for future action such as feasibility studies, whenever this is relevant. The terms of reference for these studies are contained in Annex B.

Detailed Project Screening Tables

Table 4.3.1: Private Sector Participation

	Private Sector Participation: ***Analysis***	***Issues***
ARA light industrial estate	The proximity of the proposed site for the ARA light industrial estate to existing services makes this project attractive from a private sector participation perspective. Offsite infrastructure costs are 6% of total property investment (no-desalination) and 18.9% of total property investment (desalination).	*Issue*: Potential competition for private se investment from JIEC once the project ge *Solution*: Secure JIEC agreement prior to
ARA border industrial estate	This site is the most remote from existing services, reducing private sector investment leverage. Offsite infrastructure costs are 14.5% of total property investment (no-desalination) and 24.9% of total property investment (desalination).	*Issue:* Value of border location and status sector developer – does this balance the a for offsite service provision and the addit costs i.e. transport etc. *Solution:* Issue for examination in the fea one is undertaken.
CAA light industrial estate	The proximity of this site to the border, the airport, existing services and the Town of Aqaba makes it very attractive from a private sector investment perspective. The absence of an airport masterplan is a risk for both the airport and the private developer. His investment could stand in the way of future airport development. Offsite infrastructure costs are 9.1% of total property investment (no-desalination) and 20.3% of total property investment (desalination).	*Issue:* Will the project compromise future *Solution:* Wait until after the masterplan project.

	Private Sector Participation: ***Analysis***	***Issues***
JIEC light industrial estate	While this site enjoys proximity to services, there remains a concern about mechanisms for private sector participation within the JIEC framework. However this should be balanced against the JIEC experience in providing industrial estates. Offsite infrastructure costs are 8.3% of total property investment (no-desalination) and 21.3% of total property investment (desalination).	*Issue:* JIEC/private sector developer inter *Solution:* Study this in depth during the f phase and plan solid mechanisms that wi developers and their financial institution
FZC light industrial estate	The proximity of this site to existing services reduces offsite costs. Also it is already operational, allowing a quick startup for the private sector. On the other hand, site is in the development path of Aqaba Town and so may face operational risks that would affect private sector investor perceptions. Offsite infrastructure costs are 4.4% of total property investment (no-desalination) and 17.7% of total property investment (desalination).	*Issue:* FZC lack of experience in industri development and management (as oppose commercial zones) will impact negativel sector investors. *Solution:* Clarify FZC/developer relation *Issue:* FZC land is the development path Town. *Solution:* Plan around this.
Aqaba Town commercial center	Typically, commercial andmixed use developments in city center locations are of more interest to property developers than industrial estate projects. In this case, however land ownership questions including participation by the current landowners may cloud the issue. Publicly funded costs are projected at 16.9% of total property investment for this project.	*Issue:* Land ownership and means of part local landowners. *Solution:* Examine in the feasibility stud options open to the project proponent.
Industrial Incubator	Private sector participation will be as a client	

	Private Sector Participation: ***Analysis***	***Issues***
Freeport: ARA site in Northern Industrial Zone	One of the core objectives of the Freeport Regime is to increase the level of private sector participation in all aspects of economic activity. This objective is supported by a strong law and institution. Private sector participation in this context is expected be easily secured. Offsite infrastructure costs are 5.5% of total property investment (no-desalination) and 17.3% of total property investment (desalination).	*Issue:* The conditions under which the pr will get to participate depend on the degr Freeport Regime is enacted. *Solution:* Secure a solid guarantee from t of Jordan that certain basic conditions wi as the unique power of the Aqaba Freepo grant industrial estate development rights status for developers, and so on.
Freeport: Customs point at Freeport boundary	This is a public sector function.	
Freeport: Startup technical assistance to AFA	This is a public sector function	

Clearly, from the analysis above, the private sector would be taking on the largest part of the investment and industrial estates. Under these circumstances it is unlikely that more than one developer will be attracted to in the early years. So private sector competition will exist initially only in the process that grants the right to estate, for example a tender.

Table 4.3.2: Sustainability/Competitiveness

	Sustainability/Competitiveness: *Analysis*	***Issues***
Non-Freeport industrial estates	Table 4.3.2a below illustrates a notional return rate to a private sector developer under various rental rates and project value assumptions. The analysis is contained in Annex D. Based on this initial analysis the average return on investment to the private developer over 10 years is 18% assuming median rental levels (US$25/m²/yr) and project value in year 10 (10 times rental income). This figure is in the competitive range, and can probably be improved in a more thorough analysis in the feasibility study where: ▪ Land and building rental/sale options are fully explored ▪ Debt financing can be used to improve returns on equity ▪ Cost and income streams are fully defined.	*Issue:* Public/private sector competition. *Solution:* Clarify ARA, JIEC and FZC/de relationship in the feasibility study.
Aqaba Town commercial center	Existing substantial investments being made in Aqaba in the Tourism sector (e.g. Movenpick Hotel) is an indicator of expected increases in related activities that would include this type of development.	*Issue:* Land ownership and valuation issu the market competitiveness of the project *Solution:* Examine in the feasibility stud
Industrial Incubator	A similar analysis to the industrial projects above applies here. However, since this is a public support facility with the objective of stimulating increased linkage between industrial estates and local enterprises, some degree of subsidy from the public sector will be needed.	*Issue:* Need to separate the commercially elements of the incubator from the public elements. *Solution:* Examine in the feasibility stud
Freeport: ARA site in Northern Industrial Zone	Same analysis as non-Freeport. Accelerated demand due to Freeport Status should reduce risk, reduce costs and increase attractiveness to the private sector.	

	Sustainability/Competitiveness: *Analysis*	***Issues***
Freeport: Customs point at Freeport boundary	This is a public sector function. Revised customs procedures and operations will improve Aqaba's competitive position both nationally and internationally	
Freeport: Startup technical assistance to AFA	This is a public sector function. Properly implemented Freeport Status will significantly improve Aqaba's competitive position both nationally and internationally	

Table 4.3.2a : Potential returns to a Private Sector developer from Industrial Estates in Aqaba

IRR Results		Project Value to Income in Yr 10 ratio			
		8	10	12	14
Rent level $/yr/m2	20	6%	9%	12%	15%
	25	13%	16%	19%	21%
	30	18%	21%	24%	26%
	35	23%	26%	29%	31%
	40	28%	31%	33%	36%

Note: IRR denotes Internal Rate of Return

Table 4.3.3: Sectoral Suitability and Fit with Other USAID/Donor Initiatives

	Sectoral Suitability and Fit with Other USAID/Donor Initiatives: ***Analysis***	***Issues***
ARA light industrial estate	Establishment of a fully private industrial estate in Aqaba will support USAID's over-all objective of boosting economic growth by increasing foreign and domestic private sector investment in the economy. The private estate also represents a new platform for the expansion of trade and cross-border cooperation with the Israeli private sector under the QIZ program.	*Issue:* QIZ status may lead to dominance intensive garment/assembly operations w generating significant technology transfe *Solution:* Integrate private industrial estat with national investment promotion effor
ARA border industrial estate	Establishment of a fully private industrial estate in Aqaba will support USAID's over-all objective of boosting economic growth by increasing foreign and domestic private sector investment in the economy. The border estate location also represents the industrial estate option that most directly accommodates Jordanian/Israeli cooperation under the QIZ program because of its reliance on back-to-back manufacturing.	*Issue:* Border estate relies on customs int may be difficult to implement. *Solution:* Integrate project with customs r supported by USAID and GTZ.
CAA light industrial estate	The CAA estate also supports private sector growth and border QIZ objectives. In addition, establishing another revenue stream for the CAA will support that institution in gaining the financial independence that is being made possible by the current Royal Jordanian privatization process that is being supported by the World Bank. Over the medium term, the CAA location could also serve to diversify Aqaba's economy through new investment in the airside services sector.	*Issue:* Border estate relies on customs int may be difficult to implement. *Solution:* Integrate project with customs r supported by USAID and GTZ.

	Sectoral Suitability and Fit with Other USAID/Donor Initiatives: ***Analysis***	***Issues***
JIEC light industrial estate	Developing a private sector oriented industrial estate project in collaboration with the JIEC will help to support the national privatization effort that is being supported by the World Bank and the donor community.	*Issue:* JIEC may prefer management cont outsourcing arrangements to full private s participation *Solution:* Make QIZ designation continge private sector participation *Issue:* Existing legislation and regulation support public/private development partn *Solution:* Pursue opportunity only if real for reform of policy regime is made
FZC light industrial estate	Developing a private sector oriented industrial free zone project in collaboration with the FZC will help to support the national privatization effort that is being supported by the World Bank and the donor community.	*Issue:* FZC may prefer management contr outsourcing arrangements to full private s participation *Solution:* Make QIZ designation continge private sector participation *Issue:* Existing legislation and regulation support public/private development partn *Solution:* Pursue opportunity only if real for reform of policy regime is made
Aqaba Town commercial center	Development of the commercial center has synergies with USAID's microcredit and SME development activities through the public market/suq and handicrafts incubator components, and through the ancillary SME development impact the project has on the Shalala area.	*Issue:* Entrepreneurial potential in the Sh not justify these project components *Solution:* Incorporate an assessment of th project design

	Sectoral Suitability and Fit with Other USAID/Donor Initiatives: ***Analysis***	***Issues***
Industrial Incubator	Development of the industrial incubator supports USAID's microcredit and SME development initiatives.	*Issue:* Entrepreneurial potential in the Aq not justify these project components *Solution:* Incorporate an assessment of th project design. Consider establishment o workspace that accommodates new entrep existing small businesses as opposed to a incubator.
Freeport: ARA site in Northern Industrial Zone	Establishment of a fully private industrial estate in the Aqaba Freeport will support USAID's over-all objective of boosting economic growth by increasing foreign and domestic private sector investment in the economy. The Freeport initiative itself is a World Bank supported project that has major impacts in terms of economic liberalization and deregulation, privatization, and investment promotion. The integrated planning approach and relaxed visa requirements applied in the Freeport also offer limited opportunities for the kinds of integrated regional planning activities foreseen by the EU TEAM project.	*Issue:* The Freeport envisions a broad inc investment inflows across a variety of sec initial wave of investment may or may no concentrated in light manufacturing (as o services, transportation, logistics, or touri investment). *Solution:* Implement the NIZ on a phased driven basis
Freeport: Customs point at Freeport boundary	The streamlined Freeport Customs Force and the innovative Freeport Customs systems and procedures will serve as a test bed for reform efforts that can later be implemented under the broader national customs reform being supported by USAID and GTZ. The Freeport will essentially serve as a demonstration effect for new systems and technologies.	*Issue:* Introduction of the Freeport Custor be opposed by the national Customs Depa *Solution:* Make customs support activitie effective introduction of separate Freepor Force.

	Sectoral Suitability and Fit with Other USAID/Donor Initiatives: ***Analysis***	***Issues***
Freeport: Startup technical assistance to AFA	The Freeport technical assistance program overlaps thematically with virtuallyall economic reform activities being supported by USAID, and with the World Bank's privatization support activities. The Freeport requires support in implementing massive reform in a small, confined port city enclave. Successful implementation of this project will create major momentum to expand these reform efforts to the national level.	*Issue:* The Freeport regime may lose its p orientation as the law and regulations pas government and parliament. *Solution:* Support implementation with te assistance only if the final policy regime

The industrial estate activities all support private sector growth activities, though those involving parastatal implementation risks. The project with the greatest synergies with other donor activities is the Freeport Tech which touches on almost all aspects of economic liberalization.

Table 4.3.4: Timing

	Timing: ***Analysis***	***Issues***
ARA light industrial estate	No timing issues – can start immediately	
ARA border industrial estate	No timing issues – can start immediately	
CAA light industrial estate	Good planning practice would call for the Airport Masterplan to be drawn up before a decision of this type is made. This is particularly important in the light of the Peace Airport initiative, which at the time of writing was being reported in the press as being revived	*Issue:* Will the project compromise future plans? *Solution:* Wait until after the masterplan the project.
JIEC light industrial estate	No known timing issues. JIEC agreement on private sector development needed before the project can proceed, but indications from JIEC senior management are that this will not be a problem.	
FZC light industrial estate	No timing issues.	
Aqaba Town commercial center	The project requires basic landowner agreement before it can proceed. This may delay startup.	*Issue:* Land ownership and means of part by the local landowners. *Solution:* Examine in the feasibility stud different options open to the project prop
Industrial Incubator	No timing issues	

	Timing: ***Analysis***	***Issues***
Freeport: ARA site in Northern Industrial Zone	Dependent on the timing of Freeport decision by the Government of Jordan, and the timeframe for the implementation of this decision.	
Freeport: Customs point at Freeport boundary	Dependent on the timing of Freeport decision by the Government of Jordan, and the timeframe for the implementation of this decision.	
Freeport: Startup technical assistance to AFA	Dependent on the timing of Freeport decision by the Government of Jordan, and the timeframe for the implementation of this decision.	

Table 4.3.5: Job Creation and Value Added

	Job Creation and Value Added: ***Analysis***	***Issues***
Non-Freeport industrial estates	4,600 jobs Value added/year = US$ 23 million	
Aqaba Town commercial center	800 jobs Value added/year < US$ 3.2 million	
Industrial Incubator	Less than 50 direct jobs Subsidized	
Freeport: ARA site in Northern Industrial Zone	5,200 jobs Value added/year < US$ 26 million	
Freeport: Customs point at Freeport boundary	None	None
Freeport: Startup technical assistance to AFA	Supports creation of 76,000 additional jobs over 20 years	None

Value added from will range around 25 percent of output in the kinds of manufacturing activities foreseen i projects – about US$5000 per job. Value added figures for the kinds of retail activities foreseen for the com below that figure.

Table 4.3.6: Overall Investment in the Economy

	Overall Investment in the Economy: ***Analysis***	***Rank***
Non-Freeport industrial estates	The overall investment in the economy is assumed to be in the range US$9,000 to $16,000 per person employed in apparel –type activities[12]. An average figure of US$12,000 per person employed is used. Overall investment over 10 years for the non-Freeport industrial estates is estimated at US$55.2m, excluding offsite infrastructure. Total direct investment including all infrastructure resulting from developing the 40ha estate is estimated at between US$57 and US$67 depending on the water supply option adopted.	Rank 2
Aqaba Town commercial center	Overall investment made in the project is calculated at approximately US$14.5m, including site preparation, studies, construction of the center.	Rank 4
Industrial Incubator	Overall investment is calculated at approximately US$0.8m based on the project description.	Rank 7

[12] Records from Jordanian Department of Statistics on fixed assets and number of employees in selected apparel and footwear sec investment per employee in the range of US$6,000 to US$9,000. These figures result from pre-QIZ operations. Recent TSG surve apparel sector show an investment level of US$16,000 per employee for a state of the art computerized apparel factory. The figure employee recognizes that the investors in the industrial estates will operate somewhere between the two situations described abov

	Overall Investment in the Economy: ***Analysis***	***Rank***
Freeport: ARA site in Northern Industrial Zone	Overall investment in the economy in the case of the Freeport northern industrial zone is assumed to be on average higher than for the non-Freeport case. The mix of industries in the Freeport will be more diverse, and over time the combined promotional effect of the Freeport Authority and QIZ status should push the investment per job more towards the US$16,000 level represented by state of the art apparel manufacturers. For this reason an average estimate for investment per job of US$14,000 is assumed. This assumption, and the quicker pace of development in the Freeport means that the overall investment in the economy is estimated at between US$75m and $81m over 10 years depending on the water supply option adopted	Rank 1
Freeport: Customs point at Freeport boundary	Overall initial investment projected is US$7m in border facilities, with a possibility of a further US$17.5m in scanning equipment. This could come through a BOO/BOT arrangement. Total over 10 years US$24.5	Rank 3
Freeport: Startup technical assistance to AFA	Costed at US$12.2 m over 4 years Supports US$ 4.4 billion in additional investment over 20 years	Rank 6

Geographical distribution of investment is not considered to be a significant factor in evaluating the project industrial estate projects will all attract the same pool of developers. The commercial property project may w of investors, but these will already be active in Aqaba. The public service activities will essentially be proc Therefore the diversification that is possible is in deciding to implement more than one project, each in a di industrial estate project and the commercial center project, for example.

Table 4.3.7: Exports Generated

	Exports Generated: ***Analysis***	***Issues***
Non-Freeport industrial estates	US$ 64.4 million/year	
Aqaba Town commercial center	Indirect exports (tourism earnings)	
Industrial Incubator	Low	
Freeport: ARA site in Northern Industrial Zone	US$ 73.5 million	
Freeport: Customs point at Freeport boundary	None	None
Freeport: Startup technical assistance to AFA	Supports US$ 700 million in annual exports after 20 years	None

Export intensity for industrial estate projects is estimated at 70 percent of total output.

Table 4.3.8: Downstream, Cluster and Support Effects

	Downstream, cluster and support effects: ***Analysis***	***Issues***
Non-Freeport industrial estates	Industrial estates are well know for their ability to help industry to cluster, achieving economies of scale, and increasing regulatory effectiveness.	*Issue:* Reliance initially on QIZ sectors - are mobile industries *Solution:* Initiate a promotion program to diversification. Institute a linkage progra priority to the incubator program to encou service industries to participate in the pro process
Aqaba Town commercial center	This project, if successful, will have a significant downstream effect in helping to unify the commercial fabric of Aqaba Town. It will support investments being made in the tourism sector in Aqaba, and increase the attractiveness of Aqaba to mobile service industries that would benefit from the maritime and trans-border nature of the town.	
Industrial Incubator	This project should be viewed in tandem with the industrial estate project and with the commercial center project. This is one mechanism to achieve linkages, downstream effects and help to provide a solid location based reason for industry (both manufacturing and service) to come to and remain in Aqaba.	*Issue:* This is probably a second phase pr initial industrial estate and commercial c have begun. *Solution:* Schedule for later.
Freeport: ARA site in Northern Industrial Zone	This project will have the maximum synergistic effect and it will be a key part of the Freeport development strategy. The objectives of the Freeport include the rationalization of the existing industrial base in Aqaba, and this industrial estate will operate together with the other initiatives planned in the Northern Industrial Area such as a logistics center, high technology park, and industrial service center	*Issue:* Danger of diluted Freeport Regime compromising the overall impact of the F industrial estate in particular. *Solution:* Preservation of the entire 500ha northern industrial area and inclusion of masterplan for this area in the feasibility industrial estate.

	Downstream, cluster and support effects: *Analysis*	***Issues***
Freeport: Customs point at Freeport boundary	The TSG Freeport Study identified several areas where there is room for improvement in the existing customs operations in Aqaba. Under the Freeport regime a new and simplified system would be enacted, providing significant savings for business in the Freeport, and increasing overall efficiency. This aspect is a key feature of the Freeport and without it there will be no Freeport.	*Issue:* The modalities of operation betwe Freeport customs have not yet been fully *Solution:* Group this element with the Te Assistance element below, assuring that t of customs issues is assigned a high prio
Freeport: Startup technical assistance to AFA	The overall benefit of the Freeport Regime is to diversify the economic base and allow all types of activity to take place within a large geographic area and under optimal conditions.	*Issue*: Danger of diluted Freeport Regime compromising the overall impact of the F industrial estate in particular. *Solution:* Make Freeport TA conditional being implemented.

Table 4.3.9: Robustness of the Project to Economic and Regional Changes

	Robustness of the Project to Economic and Regional Changes: ***Analysis***	***Issues***
ARA light industrial estate	As a multi-use industrial estate that can accommodate a variety of industrial and commercial tenants, the ARA light industrial estate is more resilient to changes in the economic and political environment than purpose-built border QIZs. However, given the limited experience in Jordan with private sector industrial estate development, significant risks exist for a new local investor if the surrounding environment becomes less conducive towards estate development in Aqaba.	*Issue:* The ARA estate may nonetheless b by QIZ tenants early on in its developme *Solution:* Develop a diversified investme approach to broaden the investment base.
ARA border industrial estate	Border industrial estates will be oriented towards cross-border cooperation activities, both through estate and plant layout (i.e. back-to-back manufacturing, customized security and customs facilities) and general perception of the estate. This increases the potential downward risk if the political environment worsens.	*Issue:* The border estate may lose non-QI based on investor perception rather than r and manufacturing considerations. *Solution:* Develop a diversified investme approach to broaden the investment base.
CAA light industrial estate	Border industrial estates will be oriented towards cross-border cooperation activities, both through estate and plant layout (i.e. back-to-back manufacturing, customized security and customs facilities) and general perception of the estate. This increases the potential downward risk if the political environment worsens. The CAA estate will also be integrated into a single Aqaba Airport master plan that is designed around the new peace airport development. This increases the political risk of the project.	*Issue:* The CAA estate may lose non-QIZ based on investor perception rather than r and manufacturing considerations. *Solution:* Develop a diversified investme approach to broaden the investment base. the airport especially should be emphasiz border location as access to the airport an as well as access to Israel and Israeli inve

	Robustness of the Project to Economic and Regional Changes: *Analysis*	*Issues*
JIEC light industrial estate	As a multi-use industrial estate that can accommodate a variety of industrial and commercial tenants, the JIEC light industrial estate is more resilient to changes in the economic and political environment than purpose-built border QIZs. In addition, the JIEC's established position, reputation, parastatal structure, financially solid shareholders, development objectives, and strong financial position help to insulate the project against external economic shocks.	*Issue:* Because of the JIEC's initial invol the QIZ program, the new JIEC estate ma as an exclusively QIZ-based location. JIE also tend to be over-reliant on QIZ invest *Solution:* Develop a diversified investme approach to broaden the investment base.
FZC light industrial estate	The FZC regime is already a marginal location for manufacturing activities. Any deterioration in the surrounding environment will only worsen the FZC's attractiveness to manufacturing investors.	
Aqaba Town commercial center	While the commercial center is an integrated multi-use facilities, it will depend at least in part on international tourists and business travelers. A real deterioration in the political, security, or economic environment will thus adversely impact the development.	*Issue:* Tourism-related activities will be r impacted by external events than comme residential development. *Solution:* Reflect this volatility in the cen mix.
Industrial Incubator	The incubator will serve local entrepreneurs who are relatively insulated from changes in the political environment.	
Freeport: ARA site in Northern Industrial Zone	Because of its broadly liberalized investment environment, the Aqaba Freeport is more flexible in addressing downturns in the economic and political environment than the rest of Jordan. The NIZ within the Freeport will thus be more insulated from economic and political downturns than an identical private industrial estate developed on ARA property within the Jordanian customs territory.	*Issue:* External shocks during the implem process may rob the Freeport of critical m early in the project: *Solution:* Development and promotion str emphasize those industries less affected l

	Robustness of the Project to Economic and Regional Changes: ***Analysis***	***Issues***
Freeport: Customs point at Freeport boundary	New customs facilities will be required even if the external situation worsens, since significant volumes of goods will continue to travel through Aqaba Port into Jordan.	Negative impacts on TA are limited
Freeport: Startup technical assistance to AFA	Because of its broadly liberalized investment environment, the Aqaba Freeport is more flexible in addressing downturns in the economic and political environment than the rest of Jordan. As an offshore manufacturing and investment location, the Freeport can be promoted as a relatively safe haven in the context of the Middle East. Technical assistance activities that support this development could thus be expended even if the surrounding environment deteriorates.	Negative impacts on TA are limited

Table 4.3.10: Fit With National Strategy

	Fit With National Strategy: ***Analysis***	***Issues***
ARA light industrial estate	The ARA light industrial estate supports private sector-led investment and economic development, regional development, and export-led employment creation.	
ARA border industrial estate	The border industrial estate concept accommodates both Jordan's policy of encouraging private sector investment and employment creation and support of the peace process through concrete economic cooperation.	
CAA light industrial estate	The border industrial estate concept accommodates both Jordan's policy of encouraging private sector investment and employment creation and support of the peace process through concrete economic cooperation. Greater collaboration between the CAA and the private sector has not officially been described as a national priority, but should fit into the over-all privatization effort under way.	*Issue:* The CAA industrial estate develop become confused with the peace airport d and lose its private sector orientation. *Solution:* Identify land uses and requirem the airport master plan
JIEC light industrial estate	The JIEC light industrial estate supports private sector-led investment and economic development, regional development, and export-led employment creation. Greater collaboration between JIEC and the private sector has not officially been described as a national priority, but should fit into the over-all privatization effort under way.	*Issue:* Private participation in JIEC proje encounter popular opposition on the grou JIEC is losing its regional development f that valuable national assets are being pri *Solution:* Emphasize collaborative nature public/private partnership.
FZC light industrial estate	The FZC light industrial estate supports private sector-led investment and economic development, regional development, and export-led employment creation. Greater collaboration between the FZC and the private sector has not officially been described as a national priority, but should fit into the over-all privatization effort under way.	*Issue:* Private participation in free zones encounter popular opposition on the grou interests are abusing free zone privileges, valuable national assets are being privati *Solution:* Emphasize collaborative nature public/private partnership and clear lines authority over duty free privileges.

	Fit With National Strategy: ***Analysis***	***Issues***
Aqaba Town commercial center	The commercial center supports the regional development efforts as implemented through the IPC investment incentives and political decentralization in the Aqaba Region.	*Issue:* The Commercial Center may be se scale development that displaces local pe traditions, rather than as a development p *Solution:* Emphasize land development c opportunities for local tenants and comm local vernacular architecture and signage
Industrial Incubator	The incubator encourages technology transfer , entrepreneurial development, and the regional development efforts as implemented through the IPC investment incentives and political decentralization in the Aqaba Region.	
Freeport: ARA site in Northern Industrial Zone	Support of the freeport is not yet national policy. However, economic liberalization in general is a policy objective.	*Issue:* The Freeport remains a controversi Jordanian society and government. *Solution:* Make support contingent on off acceptance of liberal freeport design.
Freeport: Customs point at Freeport boundary	Support of the freeport is not yet national policy. However, customs reform in general is a policy objective.	*Issue:* The Freeport remains a controversi Jordanian society and government. *Solution:* Make support contingent on off acceptance of liberal freeport design.
Freeport: Startup technical assistance to AFA	Support of the freeport is not yet national policy. However, economic liberalization in general is a policy objective.	*Issue:* The Freeport remains a controversi Jordanian society and government. *Solution:* Make support contingent on off acceptance of liberal freeport design.

Table 4.3.11: Environmental Impact

	Environmental Impact: *Analysis*	*Issues*
ARA light industrial estate	This location has been designated as the most suitable environmentally under the Freeport Study. Given that the initial target industries will be light manufacturing the environmental impact can be kept to a minimum.	*Issues:* The Freeport Environmental Impa found the potential impacts to include so dust generation (construction), public atti road hazards, loss of vegetation cover, sol *Solutions:* Develop the following plans: e sediment control, dust management, repla wastes collection and transportation, publ visibility markers and lighting. *Issue:* Water source for the industrial esta aquifer or desalination? *Solution:* Clarify national policy on wate in Aqaba during the feasibility study, bas will be Disi water initially, desalination l *Issue:* Wastewater generation by the indu treat on site or use public system? *Solution:* Address this in the feasibility st positives to both alternatives. Onsite limi the potential problem, provides opportuni monitoring and regulation. Offsite increa Aqaba overall with the resulting wider re opportunities.

[13] Ranking: 1 means least environmentally damaging or most positive environmental impact. Projects with impact estimated as e

	Environmental Impact: ***Analysis***	***Issues***
ARA border industrial estate	This project may pose more problems environmentally than the other industrial estate projects. The increased distance from Aqaba Town means that services have further to travel and the consequent increased risks attached with this. The border location also raises transboundary issues as evidenced by recent environmental concerns on the Israeli side of the proposed Peace Airport.	*Issue:* Distance from existing services *Solution:* If this project is being studied f purposes, then a detailed cost benefit ana distance issue should be carried out as pa *Issue:* Site location raises trans-border iss potentially different standards and enviro priorities on each side of the border. *Solution:* If this project is chosen for furtl development, engage in dialogue with th Authorities to resolve these issues.
CAA light industrial estate	Good planning practice would call for the Airport Masterplan to be drawn up before a decision of this type is made. A full EIA would be part of the masterplanning process. The same transboundary concerns as mentioned above also exist for this project	*Issue:* Will the project compromise future *Solution:* Wait until after the masterplan project. Transboundary issue as noted above also
JIEC light industrial estate	As for AFA light industrial estate above.	As for AFA light industrial estate above.
FZC light industrial estate	The location of the FZC site is in the future residential expansion zone for the Town of Aqaba. Installation of an industrial estate would compromise this need.	*Issue:* Site in development path of Aqaba *Solution:* Confine development to parts o removed from the required rights-of-way highways.

	Environmental Impact: ***Analysis***	***Issues***
Aqaba Town commercial center	This project will have a very positive environmental impact on the Town of Aqaba. The existing uses are very informal, and not in keeping with the site's location beside one of the most archaeologically valuable social amenities in Aqaba.	*Issue:* Most of the environmental impacts during construction and these will includ congestion, noise. *Solution:* Develop plans for noise, traffic mitigation. *Issue:* Increased pedestrian and motor tra center during the operation of the center. *Solution:* Institute traffic management pl
Industrial Incubator	Environmental analysis already described in industrial estate and commercial center projects.	Environmental issues and solutions alrea industrial estate and commercial center p
Freeport: ARA site in Northern Industrial Zone	Same issues as ARA light industrial estate. In addition, under the Freeport Regime a distinct environmental regulatory regime is imposed, including the establishment of the Aqaba Freeport Authority's environmental unit. This is a positive measure for environmental protection.	Same issues as ARA light industrial estat
Freeport: Customs point at Freeport boundary	N/A	N/A
Freeport: Startup technical assistance to AFA	Given the role of AFA in environmental management and regulation, this project will have a significant environmental impact.	*Issue:* Interaction between AFA and the r Authorities on Environmental control ma *Solution:* Implement the Freeport regime envisaged in the TSG Freeport Study. Ma project conditional on full implementatic

Table 4.3.12: Negative/Positive Short- and Long-term Social Effects

	Negative/Positive Short- and Long-term Social Effects: ***Analysis***	***Issues***
Non-Freeport industrial estates	The different industrial estate developments will quickly absorb available labor in the Aqaba Region. As the estates grow, migration of workers from other parts of Jordan will change the demographic mix of Aqaba. Over time, foreign investment in the estates will increase Aqaba's expatriate community, and increased QIZ activity will mean that more Israelis will travel to Aqaba on a regular basis. Labor-intensive manufacturing in the QIZs will also change labor participation rates, and may increase the workforce participation of women.	*Issue:* Industrial estate development may as a threat to local community identity ar conservative groups. *Solution:* Emphasize direct and indirect b increased employment opportunities for J
Aqaba Town commercial center	The Commercial Center's high-quality amenities and residential component will shift a greater proportion of affluent Jordanians and foreigners into the downtown area from the main hotel developments. The Center's initial development will also entail relocation of existing workshops. Most residential buildings in the area accommodate temporary foreign workers, who will have to be accommodated elsewhere.	*Issue:* The Commercial Center may be pe threat to local community identity and va conservative groups. *Solution:* Emphasize the mixed-use natur development, and the fact that it is a com rather than a traditional beachfront devel *Issue:* The project may be opposed by cu and occupants of the property who fear ex relocation. *Solution:* Emphasize development compa participation, commercial center tenancy industrial location options offered under t
Industrial Incubator	None	N/A

	Negative/Positive Short- and Long-term Social Effects: ***Analysis***	***Issues***
Freeport: ARA site in Northern Industrial Zone	As is the case with industrial estate developments, the NIZ will quickly absorb available labor in the Aqaba Region. As the estates grow, migration of workers from other parts of Jordan will change the demographic mix of Aqaba. Over time, foreign investment in the estates will increase Aqaba's expatriate community, and increased cross-border activity will mean that more Israelis will travel to Aqaba on a regular basis. Labor-intensive manufacturing in the NIZs will also change labor participation rates, and increase the workforce participation of women.	*Issue:* Industrial estate development may as a threat to local community identity ar conservative groups. *Solution:* Emphasize direct and indirect b increased employment opportunities for J This should be integrated into the over-al relations outreach campaign that is part o Freeport Implementation Plan.
Freeport: Customs point at Freeport boundary	The new customs posts will replace existing security checkpoints located on the highways leading into Aqaba. The new posts will represent a more thorough security check that could lead to the perception that Aqaba has been separated from the sovereign Kingdom of Jordan.	*Issue:* The checkpoints may be perceived barrier that suggests Aqaba is no longer p and that Aqaba residents are divorced fro the country. *Solution:* Ensure that the new facilities ar attractive, modern, and efficient than exis checkpoints in Aqaba and along the Jord Implement rapid clearance procedures an technologies to expedite clearance of regu commuters.

	Negative/Positive Short- and Long-term Social Effects: ***Analysis***	***Issues***
Freeport: Startup technical assistance to AFA	In addition to the effects of the NIZ development, the over-all freeport regime will rapidly accelerate economic deregulation and competition in Aqaba, increase the number of foreign visitors, investors, and residents in Aqaba, and may lead to a more socially liberal component to Aqaba Town, in terms of amenities and recreational opportunities. A major technical assistance project in support of this development may come under criticism by conservative interest groups.	*Issue:* The technical assistance program s Freeport development effort that will acce social mobility, and economic diversific *Solution:* Implementation of technical as through the AFA should limit direct criti support activities.

4.4 Conclusions

Approach

Table 4.4 below summarizes the screening effect of applying the factors described in section 4.2 above. The outcome of each qualitative factor was rated as positive, neutral or negative. A simple score was then made where a positive outcome gained a point, a negative outcome lost a point, and a neutral outcome had no effect. The points were then added up for each project.

Although this approach for the qualitative factors is not precise, it does give a comparative overview of all of the projects considered, and indicates the primary areas of difference between the projects. The project ranking obtained by this approach also makes sense intuitively.

While scoring the projects, certain factors were designated as disqualifying factors. These were applied in situations when the significance of the impact of the factor was such that it would most likely make the project unfeasible for a timing, sustainability, or planning perspective.

The qualitative approach is not suitable for quantitative factors such as economic impact – job creation, value added and exports. In these cases it is clear that there are two orders of magnitude to consider. The industrial estates projects have large economic impact over time, and the difference between the projected performance of each of these projects is not significant in comparison to their overall size. The non-industrial estate projects are on a smaller scale and should be considered separately.

The conclusions described in the next section were then drawn by adopting the following methodology:

No-Freeport

1 – Consider all industrial estate projects in the no-Freeport context.
2 – Eliminate those with disqualifying factors and compare the remainder.
3 – Nominate the most suitable industrial estate project and a fallback.
4 – Nominate the next most suitable no-Freeport project.

With-Freeport

1 – Nominate which no-Freeport industrial estate project is best suited to the Freeport.
2 – Determine conditions for proceeding with the nominated project.
3 – Nominate supporting projects that will help to fulfill those conditions.

Figure 4.1: Location Map: Aqaba Industrial Estate Sites

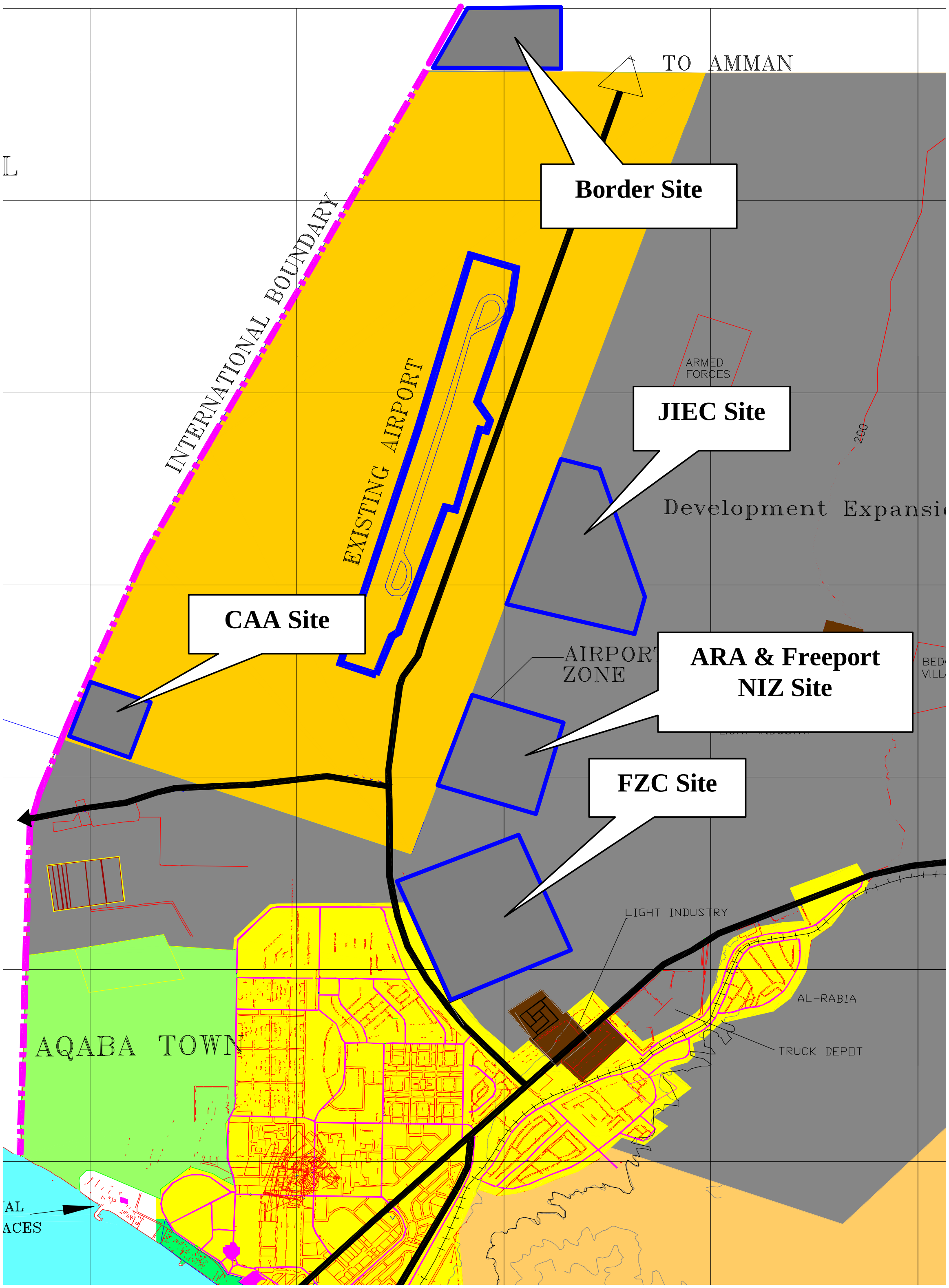


Table 4.4: Summary Screening Table

(+ = positive factor; 0 = neutral – no impact; - = negative factor, uncertain; shaded block = disqualifyin

	ARA Industrial Estate	ARA Border Industrial Estate	CAA Industrial Estate	JIEC Industrial Estate	FZC Industrial Free Zone	Town Commercial Center	Business Incubator	Freeport Northern Ind. Zone
Private Sector Participation	+	+	+	+	0	+	0	+
Sustainability/ Competitiveness	+	0	+	+	-	+	0	+
Fit with Other Donor Initiatives	+	+	-	+	-	0	+	+
Timing	+	+	-	-	-	+	-	-
Job Creation & Value Added			4,600 jobs US$ 23 m/year			800 jobs US$ 3.2 m/yr	>50 Subsidized	5,200 jobs US$26m/y
Investment	+	+	+	+	+	+	-	+
Exports (US$/year)			US$ 64.4 m			Indirect	Low	US$ 73.5
Downstream/ Cluster Effects	+	+	+	+	+	+	+	+
Robustness to External Change	+	-	-	+	+	-	+	+
Fit with Development National Strategy	+	+	+	+	+	+	+	0
Environmental & Planning Compatibility	+	-	-	+	-	+	0	+
Social Impact	+	+	+	+	+	+	+	+
SCORE	**10**	**5**	**2**	**8**	**1**	**7**	**3**	**7**

Non-Freeport Scenario – industrial estates

Under this scenario three of the projects are disqualified initially, for the reasons described below.

ARA Border Estate	This is disqualified for planning and environmental purposes. It is more distant from Aqaba than it need be, and there are already indications that the trans-border environmental issues could endanger the project. Given the availability of more suitable sites without these drawbacks, this site has been eliminated.
CAA Industrial Estate	The need for an Airport masterplan will delay this project. In addition, trans-border environmental issues may also delay the project. The outcome of the Peace Airport Initiative has been delayed for some time and is also uncertain. This will have an impact on the project.
FZC Industrial Free Zone	The FZC regime is not the competitive for manufacturing. The physical location of the site is in the residential development path of the Town of Aqaba.

Among the non-Freeport industrial estate projects, this now leaves the ARA Industrial Estate near the Airport and the JIEC Industrial Estate about 2km further along the Dead Sea Highway. The difference in cost and impact of the two sites is not significant.

Under the scoring system in Table 4.4 above the ARA Industrial Estate scores 10 points (the maximum) and the JIEC scores 8 points. The difference arises from the expected timing of the project. There is one potential source of delay. In order for development of the JIEC site as a QIZ to be a potential project, there would have to be agreement by JIEC that for the first time a private developer will be allowed to develop and operate an industrial estate on JIEC land. JIEC management has expressed its willingness to adopt this policy, and has also indicated that this policy would not require a change to the JIEC Law and could be achieved through a decision of the Council of Ministers. But this will require verification and the design of a clear legal framework to allow the transaction to proceed.

No such requirement exists on the ARA land, hence the higher score.

However, there are a number of other factors that should be considered. First, the JIEC already has a mandate to develop an industrial estate on its site. It already owns the site having procured it from ARA, and has expressed agreement to enter a partnership with the private sector in developing the site.

Second, selecting the JIEC site removes the possibility that it will feel the need to compete with a private sector developer on another site.

Third, even in the event that a decision is made by the Government of Jordan during the course of development of the site to transform Aqaba into a Freeport, the JIEC site is within the area designated for light industry under the Freeport Masterplan. Under such a decision the JIEC land would revert to the Freeport Authority, and so there is no loss of flexibility in choosing the JIEC land.

> ***It is recommended that the JIEC site should be designated as the optimal site for the development of an industrial estate at Aqaba. The ARA site closer to Aqaba Town should be considered as a fallback in the event that the JIEC fails to reach a binding agreement on private sector participation before the next steps in developing the project are taken.***

Other Projects – non-Freeport Scenario

The next project to score under the screening table is the Town Commercial Center project. This generates a smaller direct economic benefit, but has a big environmental and social benefit. It also has good potential for private sector participation, is highly visible and is diverse from the industrial estate project.

> ***It is recommended that the commercial center project in Old Aqaba Town be considered for support.***

Finally, the incubator/shared workspace project is the remaining project under the non-Freeport scenario. The main issue with this project is that it depends on the industrial estate or commercial center projects and consequently its timing would logically be later than these projects.

> ***Therefore it is recommended that the incubator/shared workspace project should be reconsidered when either the industrial estate or commercial center projects have been further developed and are about to commence.***

Freeport Scenario – industrial Estate

In examining the Freeport scenario, it is assumed that the decision to proceed with the Freeport has been taken by the Government of Jordan, the JIEC and FZC incentives will no longer apply to future projects within the Freeport, and that the FZC and JIEC land has been transferred to the newly formed Aqaba Freeport Authority (AFA).

It is also assumed that the planning conclusions of the TSG Freeport Study have been broadly adopted by the AFA.

> ***Under these conditions the optimal industrial estate development site is the AFA designated Phase 1 of the Northern Industrial Zone, and it is recommended that this site be considered for development.***

The major condition that would attach to the development of this site is full and effective implementation of the Freeport regime, and QIZ designation. A number of measures would need to be undertaken to ensure that this takes place, and these are incorporated in the other Freeport related projects discussed below.

Freeport Scenario – other projects

As mentioned above, the success of the industrial estate/QIZ within the Freeport will depend on the effectiveness of the implementation of the regime. To this end two projects are considered that can exert a significant influence on the Freeport outcome.

The first project is Technical Assistance to the newly formed AFA in the fields of legal and regulatory implementation, Freeport Management, Freeport Customs, infrastructure planning and support and public outreach. The overall potential benefit of the Freeport initiative over 20 years has been estimated by the TSG Freeport study – the Freeport is expected to stimulate US$4.4bn in investment, 76,000 new jobs and $700m annually in exports by year 20.

> ***The Technical Assistance project will a vital role in ensuring that the foundations for the Freeport are properly laid. To this end, and to help ensure the success of the Freeport industrial estate project, it is recommended that the Freeport Technical Assistance Project be made a condition of proceeding with the Freeport industrial estate project.***

The second Freeport related non-industrial estate project to be considered is the provision of support to the new Customs facilities at the two Freeport entrances. The operation of the customs system will be one of the major defining characteristics of the Freeport, and so will be an important element in the success of the Freeport.

> ***For this reason, the support to the provision of customs facilities at the Freeport boundaries, while not as urgent or directly influential as the technical assistance project, would also deserve support.***

5. Action Plan

5.1 Implementation Approach

There are two principal implementation scenarios to consider – the non-Freeport scenario and the Freeport scenario. While these are considered to be alternatives, a third set of circumstances is discussed briefly. This is called the transition scenario – where projects start out under the non-Freeport scenario and a late decision by the Government of Jordan to implement the Freeport Regime shifts the project environment.

The overall approach recommended is that the appropriate scenario is selected based on consultations with the appropriate officials within the Government of Jordan on plans for the implementation of the Freeport Regime. The possible paths are:

1. Start out on the assumption of no Freeport, finish support to the project with no Freeport (no-Freeport scenario)

2. Start out on the assumption of no Freeport, the Freeport Law is passed during the development of the project (transition scenario).

3. Start out with a Freeport Law being enacted, Freeport is implemented during the course of the development of the project (Freeport scenario)

4. Start out with a Freeport Law being enacted, Freeport is not fully implemented.

The objective of the implementation approach is to ensure that the projects are implemented on either path 1 or 3 above. Path 3 is the next most desirable path, and path 4 should be avoided.

Non-Freeport Scenario

Under this scenario there are three projects to consider for implementation.

a) JIEC Industrial Estate:

The actions here are:

- Secure ARA/JIEC agreement to the project.
- Perform a full feasibility study on the selected site (including designing the appropriate legal framework to enable full private sector participation in the development of industrial estates on JIEC land).
- Implement the appropriate legal framework.
- Implement the project (see timeline below).

b) Aqaba Town Commercial Center

The actions here are:

- Secure ARA agreement.
- Perform initial scoping study that identifies and engages existing landowners.
- Perform feasibility study.
- Draw up terms of reference for Architectural Competition.
- Hold Architectural Competition.
- Implement project

c) Incubator/shared workspace

The actions here are:

- Wait for industrial estate/ commercial center project to begin.
- Perform feasibility study.
- Implement project.

Freeport Scenario

Again there are 3 projects to consider here.

a) Aqaba Freeport Northern Industrial Zone

The actions here are:

- Obtain a clear statement of the nature and timing of the Freeport Regime.
- Obtain agreement that technical assistance component will proceed in tandem with the industrial estate development.
- Perform feasibility study.
- Implement project

b) Technical Assistance to the Freeport Regime

The actions here are:

- Agree with AFA on TA requirements and timing
- Mobilize TA

c) Support for customs points at Aqaba Freeport

The actions here are:

- Ensure that Freeport customs procedures have been agreed
- Design studies for new facilities
- Provide new facilities

Transition scenario (non-Freeport to Freeport)

This scenario assumes that the JIEC site and the commercial Center have commenced under the non-Freeport scenario, and that the Government of Jordan announces that it intends to proceed with the Freeport. The feasibility studies or early onsite development for both projects are ongoing.

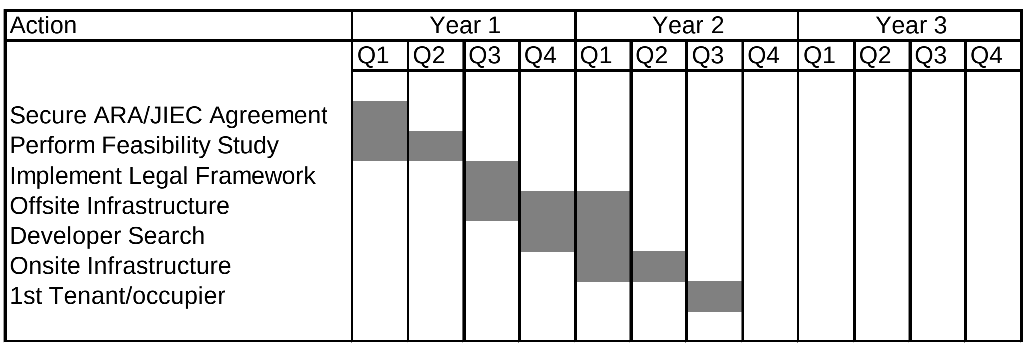
In this case the proponents of both projects would probably have the choice to register as Freeport enterprises or remain subject to national tax and incentive laws. Appropriate terms would have been included in the development agreements between the public and private sector partners to take care of the institutional and property ownership issues arising out of the change.

The Technical Assistance project for the Freeport would be activated as outlined above.

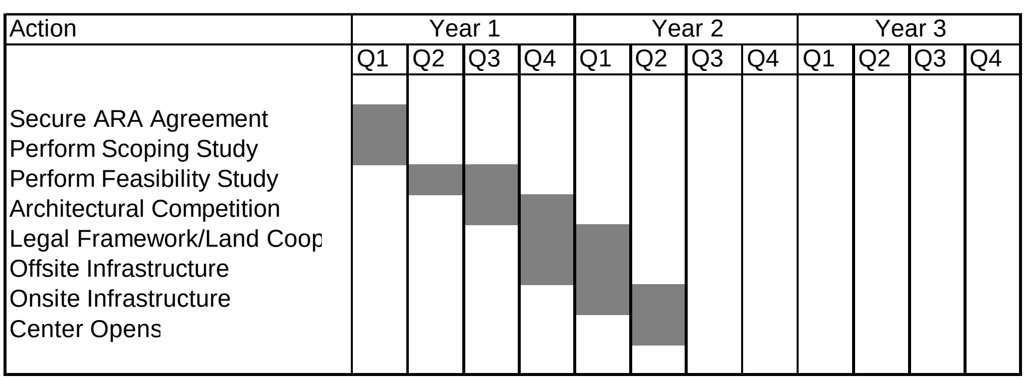
5.2 Project Implementation Timeline

Figure 5.1: Individual Implementation Timelines

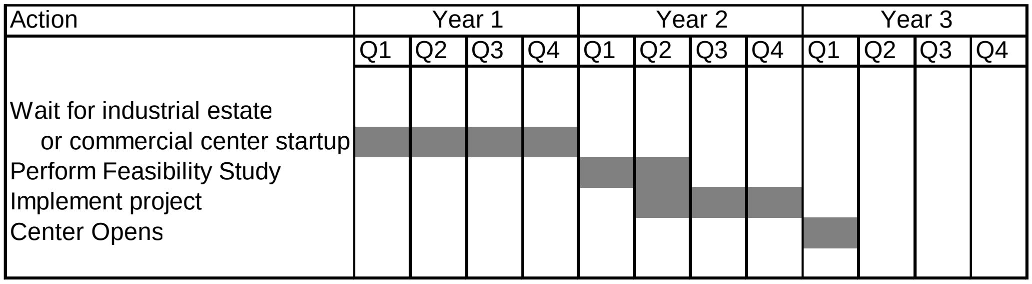
Project: JIEC Industrial Estate



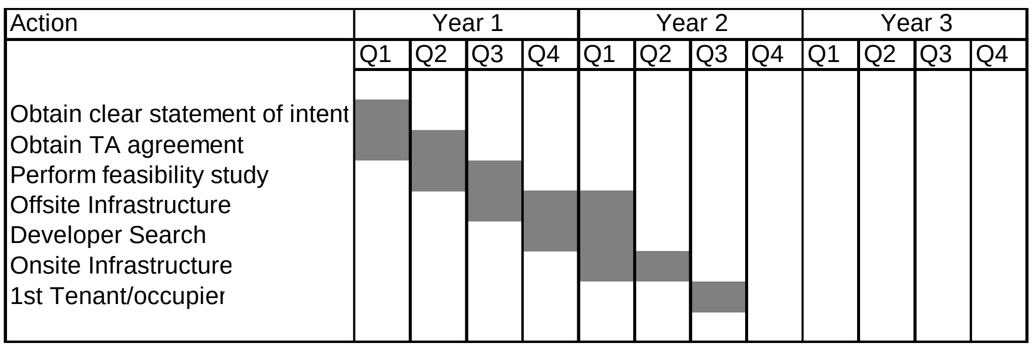
Project: Commercial Center, Aqaba Town



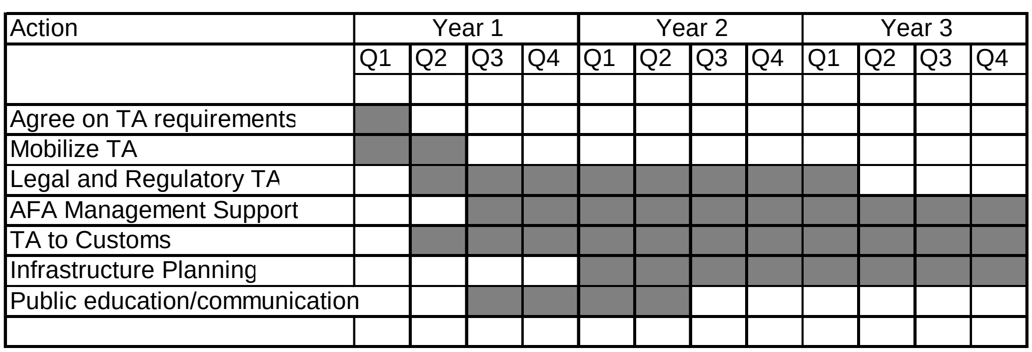
Project: Incubator/shared workspace



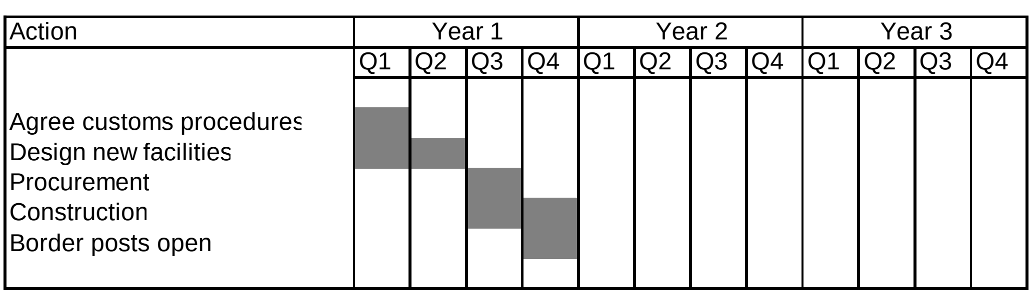
Project: Aqaba Freeport Northern Industrial Zone



Project: Technical Assistance to Freeport Regime



Project: Customs facilities at Border Crossings



5.3 Project Funding Breakdown - USAID portion

Table 5.1 below summarizes potential funding opportunities for USAID associated with the projects recommended in this report. The Freeport Authority Technical Assistance is for one year only. The total for the full 3 year program is US$12.2m

Table 5.1

USAID Budget for Aqaba Projects -US$

Project/activity	
JIEC Industrial Estate	US$
Feasibility Study	300,000
Offsite infrastructure	3,200,000

	3,500,000
Commercial Center	
Scoping study	100,000
Feasibility study	150,000
Land acquisition	500,000
Site clearance	150,000
Design competition	150,000
Offsite access	750,000
Site preparation	300,000
Technical Assistance	150,000

	2,250,000
Business Incubator	
Feasibility Study	150,000
Construction	600,000
Equipment/workshops	200,000
Support costs (annual)	200,000

	1,150,000
Northern Industrial Zone - Freeport	
Feasibility Study	300,000
Offsite infrastructure	2,400,000

	2,700,000

Aqaba Freeport Authority Support (1st year)	
Legal and Regulatory TA	410,000
Freeport Authority TA	1,200,000
Customs TA	970,000
Property management TA	155,000
Public awareness TA	140,000

	2,875,000
Customs Infrastructure	
2 Checkpoints	5,750,000
IT infrastructure	500,000
Smartcard system	750,000

	7,000,000

Annex A: Project Descriptions

Status Quo Projects:

ARA Light Industrial Estate

ARA Border QIZ Light Industrial Estate

CAA Light Industrial Estate

JIEC Light Industrial Estate

FZC Light Industrial Estate

Aqaba Town Commercial Center

Business Incubator

Freeport Projects:

Northern Industrial Zone

Aqaba Freeport Authority Support

Customs Infrastructure and Training

Annex B: Scopes of Work for Next Recommended Steps to be Taken

Status Quo Projects

JIEC Light Industrial Estate

Aqaba Town Commercial Center

Freeport Projects

NIZ Light Industrial Estate

Scope of Work: JIEC Light Industrial Estate

Project Context

USAID is interested in fostering the development of privately developed serviced industrial property in Aqaba as a mechanism to increase private sector-led investment and economic growth. A parcel of suitable land has been identified in Aqaba, and a preliminary study funded by USAID indicates that this property may be suitable for the development of a light industry industrial estate, possibly with QIZ status, and operating under the incentive regime available through the Jordan Industrial Estate Corporation (JIEC).

Site

The site that has been identified is currently in the ownership of JIEC, located approximately 1km from the entrance to Aqaba Airport to the east of the Dead Sea Highway. The 275 hectare site has been identified in the 1997 JICA Study on industrial sites[14] as the most suitable site for industrial development in the area. JIEC purchased the site from the Aqaba Region Authority (ARA) in 1997 based on the results of the JICA study.

The site is open and clear, ready for industrial development. It is located in an area that is accepted by ARA as being suitable for industrial development, and is relatively close to existing services in Aqaba (approximately 6km from mainline water, sewerage and electricity lines). Conditions on site are suitable for the development of industrial buildings.

Demand for Industrial Space

Preliminary indications are that demand for land for light manufacturing in Aqaba will range between 15ha and 45ha over the next 10 years, depending on the regime adopted. The most likely demand scenario for the identified land is that it will service projected demand for light Qualified Industrial Zone (QIZ) industrial space in the apparel, electronics, footwear and other sectors. Up to 45 ha of this land could be developed in phase 1, to service demand likely to arise in the next 10 years.

Earlier Studies

The JIEC site has been studied previously in 1997 as noted above. While many of the findings of this study may remain valid, a number of circumstances have changed significantly enough to warrant a new study on the site. Indications from the preliminary USAID demand study are that the rate of development of the site will be slower than first projected in the 1997 study. The rates of return projected by the 1997 study are low in the context of finding a private developer to participate in industrial estate development. The QIZ regime was not available when the 1997

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[14] "Study on Industrial Development in Southern Districts of The Hashemite Kingdom of Jordan", 1997, by Nippon Koei and others, funded by JICA for JIEC.

study was performed. The recently concluded TSG Aqaba Freeport Study[15] has proposed planning changes which impact on the provision of services and access to the JIEC site, and the proposal to obtain a water supply from the Disi Aquifer is now in question given the current Government Policy of capping Disi supply to Aqaba at current levels. Finally, the introduction of a private sector developer and operator has implications on land transfer and estate management that are not reflected in the 1997 study.

JIEC Site Feasibility Study Objectives

The Feasibility study has the following objectives:

- Prove the demand estimations for the industrial estate in Aqaba;
- Estimate the costs (both off-site and on-site) of constructing and operating the proposed industrial estate;
- Design the optimal institutional and legal mechanisms for private sector and public sector partnership in the development of the industrial estate;
- Determine the economic and financial feasibility of the industrial estate;
- Determine the scope and size of appropriate USAID intervention in the project, consistent with USAID objectives to maximize private sector participation in the project.

Study Elements

The elements of the Feasibility Study are:

1) Location Audit and Benchmarking Study

- Assess the comparative and competitive advantages of the JIEC site, with and without QIZ status

- Perform a similar analysis for Freeport Status as envisaged in the TSG Freeport and Special Economic Zone Feasibility Study and Implementation Plan.

2) Market Potential and Demand Assessment

- Assess potential industry sectors for the Aqaba QIZ making reference to growth and inward investment trends, existing presence in the Middle Eastern markets, market potential in target QIZ sectors, current investment trends in the region, and a review of similar projects in the region.

- Determine the target industries for the industrial estate, describing industry composition, labor and transport characteristics, dependency on services, and potential for local supplier industries and support services. Make a projection over 10 years of demand for buildings and land in the industrial estate.

[15] "Aqaba Freeport and Special Economic Zone – Feasibility Study and Implementation Plan", The Services Group, Inc. 1999

- Conduct a market survey of up to 50 industry groups, individual industries and other relevant bodies and individuals in order to validate the assumptions under which the space uptake is projected.

3) Site evaluation, physical planning and costing, environmental impact assessment.

- Assess the existing site and related infrastructure in terms of suitability for development as an industrial estate to house the activities identified in the demand survey.

- Prepare a land use and zoning masterplan for the industrial estate, including a plan for the upgrading of any external infrastructure required to make the industrial estate functional.

- Prepare an Environmental Assessment (EA) of the proposed industrial estate that describes existing environmental conditions, potential impacts of the development, and mitigation measures required to ensure that the development of the industrial estate does not damage the environment.

- Prepare a capital and recurrent budget over 10 years for the construction and operation of the industrial estate, under three headings – Capital and recurrent onsite, capital and recurrent offsite, and capital and recurrent public services. Provide detailed breakdowns under each cost heading.

4) Mechanisms for private sector participation

- Determine the appropriate investment split between the private and public sectors, taking account of required rates of return to private developers, public obligations to provide services, and the overall objective of the project to provide industrial space with maximum private sector participation in its development and operation.

- Determine the appropriate legal mechanisms for private sector participation in the development and operation of the industrial estate. The mechanism should address issues such as the nature of the participation (concession, sale, joint venture, management contract), land ownership and tenure, rights and obligations of both sides, performance requirements, profit distribution, exit conditions, dispute resolution, and other issues that are relevant.

5) Financial and economic analysis

- Conduct a full financial analysis of the project including a phased capital budget; income and cashflow projections; financing plan; calculated rates of return; and an analysis testing the sensitivity of the project to changes in demand, costs, and prices.

- Conduct an economic cost benefit analysis that provides an overall economic rate of return of the project to the various stakeholders – the Government of Jordan, the private commercial sector, and the industrial estate workforce.

- Quantify the extent to which USAID may support the project on an economically justifiable and sustainable basis.

6) Development Strategy and Implementation Plan

- Combine the results of the elements listed above into a coherent development strategy and implementation plan for the industrial estate.

- Perform a risk assessment that outlines the major risks (internal and external) to the project and proposes mitigation measures to minimize these risks.

Timing

The feasibility study will be completed within a period of 3 months from mobilization of the study team.

Scope of Work: Aqaba Town Commercial Center Feasibility Study

Project Context

USAID is interested in fostering the development of privately developed serviced commercial property within Aqaba Town as a mechanism to increase private sector-led investment and economic growth. A piece of suitable land has been identified in Aqaba, and a preliminary study funded by USAID indicates that this property may be suitable for a mixed-use commercial development that can be catalyzed by strategic interventions by USAID.

Property

The property that has been identified is located at the western border of the old Shalala area, along the Corniche Road, across from the old fort. The 2.5 hectare site is bordered to the south by a drainage wadi and to the north by Al-Hadwa Street. This prime piece of frontage property is currently taken up by small and informal automobile repair workshops and low-quality housing for foreign workers. Land ownership is fragmented, and consists of a mixture of informal occupancy, usage rights, and formal leases.

Project Design

Preliminary indications are that the identified land offers the opportunity to use an integrated, multi-use commercial property development to achieve a number of public benefits while providing valuable commercial real estate in Aqaba Town. A well-designed development that is executed in local vernacular architecture and integrates retail and office space, indoor/outdoor restaurant/café space, and ocean view apartments with attractions such as public market/suq facilities, outdoor seating, and information services could help to:

- Link Aqaba’s Old Fort, waterfront, and palm grove attractions with the underdeveloped Shalala area
- Stimulate foot traffic through the commercial center into the Shalala, creating new entrepreneurial SME opportunities
- Link the developed northern beach and town areas with the relatively undeveloped southern beach area, encouraging foot traffic and ancillary development along the Corniche Road

Capturing these public benefits is contingent on two factors. First, the diffuse and partially undocumented land ownership issues that affect the site will have to be resolved. A number of approaches are possible, including relocating workshops to better-serviced areas, buying individual parcels from current owners, offering current owners shares in a dedicated land development company, or any combination of these options.

Second, the physical design and management of the commercial development must be carefully balanced to create an attractive, dynamic atmosphere for retail sales, food and beverage consumption, office space leasing, and high-quality residential living. The design should be based on best practices in integrated waterfront development, and sourced through an international architectural competition.

Project Components

The contractor will undertake a feasibility study of the Commercial Center development based on the general project description listed above. In carrying out the study, the contractor will carry out the following tasks:

Develop Land Transfer Model

One of the most sensitive aspects of this project is the land transfer mechanism that will be employed to obtain access to the identified property without unduly disrupting the local Shalala community or causing dislocation or other hardship for current residents of the area. The contractor will develop a model for transferring ownership of the land by:

- Working with the ARA to identify current land ownership arrangements in the area
- Carry out an initial scooping study to verify those land ownership patterns and assess the current owners' willingness to relocate or participate in the development
- Develop land valuation assessment
- Work with the ARA in designing a land transfer model that may include the following elements:
    - Sale of property to a development company
    - Swap of land with the ARA in exchange for other land and/or facilities in Aqaba better suited for light manufacturing or residential uses
    - Equity participation in the development company through contribution of land rights

Assess Demand for Commercial Space

The contractor will assess existing and potential demand for high-quality commercial space for commercial, residential, amusement, office, and restaurant/café use. This assessment should take into account the over-all development of Aqaba as a tourism and business destination.

Design Usage Mix

Based on the results of the demand assessment, the contractor will put forward a proposed mix of commercial uses that will form the basis for testing the profit centers of the development. This usage mix should also reflect necessary circulation, utility, maintenance, and storage areas related to those profit centers.

Design Donor-supported Components

The contractor will then, in discussions with USAID, design donor-supported components of the commercial center that may include, among others:

- Shared public market/suq facility
- Handicrafts incubator
- Other SME development projects
- Public spaces

The donor-supported portion of the development is expected to remain below 20 percent of the total project. Donor-supported components should also be integrated with USAID's SME development activities.

Environmental Impact Assessment

The contractor will undertake and an EIA to identify potential environmental issues and design mitigating measures that will be reflected in the financial and economic analysis and development strategy.

Develop Financial and Economic Analysis

The contractor will develop a financial analysis for the privately financed component of the commercial center. This financial analysis will include a full set of accounts and projected internal rates of return tested under a variety of relevant sensitivity scenarios. The contractor will also prepare an economic analysis of the entire (public and private) development, and arrive at economic internal rates of return projections that will likewise undergo a series of sensitivity analyses. Both sets of sensitivity analyses should assess among other factors, the impact of worsening Jordanian economic performance and deterioration in the peace process.

Development Strategy

The contractor will then articulate a clear development strategy for the Commercial Center that includes approaches towards developer and investor identification, project planning and marketing, institutional supervision and management, zoning and signage standards, traffic management (during and after construction) and other related elements. The development strategy should also address public communications approaches that can help build local support for the project.

Develop Guidelines for Architectural Competition

The contractor will develop clear design guidelines that will form the basis of an architectural competition for the design of the Commercial Center.

Scope of Work

Feasibility Study for NIZ Light Industrial Estate in the Aqaba Freeport

Project Context

USAID is interested in fostering the development of privately developed serviced industrial property in Aqaba as a mechanism to increase private sector-led investment and economic growth. A parcel of suitable land has been identified within the boundary of the newly designated Aqaba Freeport, and a preliminary study funded by USAID indicates that this property may be suitable for the development of a light industry industrial estate, possibly with QIZ status, and operating under the incentive regime available through the Aqaba Freeport Authority.

Site

The site that has been identified is currently in the ownership of the Aqaba Freeport Authority, located approximately 3km from the entrance to Aqaba Airport to the east of the Dead Sea Highway. The 100 hectare site has been designated for light industry use in the recently concluded TSG Aqaba Freeport Study[16] because of its proximity to already installed infrastructure, its location relative to the Aqaba Airport and main highways, and the availability of room for expansion. Conditions on site are suitable for the development of industrial buildings.

Demand for Industrial Space

Preliminary indications are that demand for land for light manufacturing in the Aqaba Freeport will range between 40ha and 45ha over the next 10 years. The most likely demand scenario for the identified land is that it will service projected demand for light Qualified Industrial Zone (QIZ) industrial space in the apparel, electronics, footwear and other sectors, as well as logistics and other services using the Aqaba Airport and Freeport status. Up to 45 ha of this land could be developed in phase 1, to service demand likely to arise in the next 10 years.

Light Industry Site Feasibility Study Objectives

The Feasibility study has the following objectives:

- Prove the demand estimations for the industrial estate in the Aqaba Freeport;
- Estimate the costs (both off-site and on-site) of constructing and operating the proposed industrial estate;
- Design the optimal institutional and legal mechanisms for private sector and public sector partnership in the development of the industrial estate;
- Determine the economic and financial feasibility of the industrial estate;

[16] "Aqaba Freeport and Special Economic Zone – Feasibility Study and Implementation Plan", The Services Group, Inc. 1999

- Determine the scope and size of appropriate USAID intervention in the project, consistent with USAID objectives to maximize private sector participation in the project.

Study Elements

The elements of the Feasibility Study are:

1) Location Audit and Benchmarking Study

- Assess the comparative and competitive advantages of the industrial estate site, with and without QIZ status

2) Market Potential and Demand Assessment

- Assess potential industry sectors for the Aqaba Freeport QIZ making reference to growth and inward investment trends, existing presence in the Middle Eastern markets, market potential in target QIZ sectors, current investment trends in the region, and a review of similar projects in the region.

- Determine the target industries for the industrial estate, describing industry composition, labor and transport characteristics, dependency on services, and potential for local supplier industries and support services. Make a projection over 10 years of demand for buildings and land in the industrial estate.

- Conduct a market survey of up to 50 industry groups, individual industries and other relevant bodies and individuals in order to validate the assumptions under which the space uptake is projected.

3) Site evaluation, physical planning and costing, environmental impact assessment.

- Assess the designated site and related infrastructure in terms of suitability for development as an industrial estate to house the activities identified in the demand survey.

- Prepare a land use and zoning masterplan for the industrial estate, including a plan for the upgrading of any external infrastructure required to make the industrial estate functional.

- Prepare an Environmental Assessment (EA) of the proposed industrial estate that describes existing environmental conditions, potential impacts of the development, and mitigation measures required to ensure that the development of the industrial estate does not damage the environment.

- Prepare a capital and recurrent budget over 10 years for the construction and operation of the industrial estate, under three headings – Capital and recurrent onsite, capital and recurrent offsite, and capital and recurrent public services. Provide detailed breakdowns under each cost heading.

4) Mechanisms for private sector participation

- Determine the appropriate investment split between the private and public sectors, taking account of required rates of return to private developers, public obligations to provide services, and the overall objective of the project to provide industrial space with maximum private sector participation in its development and operation.

- Determine the appropriate legal mechanisms for private sector participation in the development and operation of the industrial estate. The mechanism should address issues such as the nature of the participation (concession, sale, joint venture, management contract), land ownership and tenure, rights and obligations of both sides (AFA and the private developer), performance requirements, profit distribution, exit conditions, dispute resolution, and other issues that are relevant.

5) Financial and economic analysis

- Conduct a full financial analysis of the project including a phased capital budget; income and cashflow projections; financing plan; calculated rates of return; and an analysis testing the sensitivity of the project to changes in demand, costs, and prices.

- Conduct an economic cost benefit analysis that provides an overall economic rate of return of the project to the various stakeholders – the AFA and the Government of Jordan, the private commercial sector, and the industrial estate workforce.

- Quantify the extent to which USAID may support the project on an economically justifiable and sustainable basis.

6) Development Strategy and Implementation Plan

- Combine the results of the elements listed above into a coherent development strategy and implementation plan for the industrial estate.

- Perform a risk assessment that outlines the major risks (internal and external) to the project and proposes mitigation measures to minimize these risks.

Timing

The feasibility study will be completed within a period of 3 months from mobilization of the study team.

Annex C: List of Meetings

USAID

Jon Lindborg, Director, Economic Opportunity Office
Jamal Al-Jaber, Economic Opportunity Office
Gerry Andersen, Economic Opportunity Office
Lewis Reade, JUSBP President
Arun Walvekar, JUSBP Vice President

US Embassy

Brian Doherty, Economic/Commercial Officer

AMIR

Steve Wade, Chief of Party
Salah-Eddin Al-Bashir, Managing Partner, IBLA

Royal Palace

Bassem Awadallah, Economic Advisor

Ministry of Industry and Trade

Samir Emeish, Advisor to the Director General

Aqaba Region Authority

Yousef Dalabeeh, President
Mohammad Balqar, Vice President for Technical Affairs
Akef Abu-Tayeh, Secretary General
Mohammed Arabeiat, Director, Research and Studies
Ali Haweileh, Investment Unit

Free Zones Corporation

Ali Madadha, Director General
Hatem Ibraheem, Aqaba Free Zone

Jordan Industrial Estates Corporation

Mr. Majali, Director General
Awni Abdul-Rahim, Director, Investment Department

Ports Corporation

Moutasem Saket, Deputy General Manager

Civil Aviation Authority

Jawad Abu-Ghazaleh, Assistant Director, Aqaba International Airport

Investment Promotion Corporation

Reem Badran, Director General
Sam Morris, Investment Advisor
Dina Daadaa, Investment Promotion Officer, USA & Canada Desk

JEDCO

Farouk Al-Hadidi, Director General

Century Investment Group

Omar Salah, President
Imad Fakhoury, Chief Development Officer
Omar Hourani, Research & Business Development Department
Jawad Anani, Investment Fund Manager

Annex D: Pro Forma Industrial Estate Project Return Calculation

Pro-forma rent/competitiveness calculation

Indicative calculation only - ignores offsite and land cost. Based on 40 ha developed over 10 years

		Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	
Private Sector Investment US$									
Land Development		600,000	600,000	600,000	600,000	600,000	600,000	600,000	60
Building Development		2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,70
		-------------	-------------	-------------	-------------	-------------	-------------	-------------	------
		3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	3,30
Working Capital 30%		990,000							
Capital Expenditure:		4,290,000	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	3,30
Income									
Occupancy =	90%								
Rent ($/m2/yr) =	25	405,000	810,000	1,215,000	1,620,000	2,025,000	2,430,000	2,835,000	3,24
Operating expenses	5%	20,250	40,500	60,750	81,000	101,250	121,500	141,750	16
Net income		384,750	769,500	1,154,250	1,539,000	1,923,750	2,308,500	2,693,250	3,07
Sale value year 10 = net income X factor of			10						
Project cashflow		(3,905,250)	(2,530,500)	(2,145,750)	(1,761,000)	(1,376,250)	(991,500)	(606,750)	(22

Project IRR: 16%

IRR Results

Rent level $/yr/m2	Project Value to Income in Yr 10 ratio: 8	10	12	14
20	6%	9%	12%	15%
25	13%	16%	19%	21%
30	18%	21%	24%	26%
35	23%	26%	29%	31%
40	28%	31%	33%	36%

Average ROI over 10 years: 18%