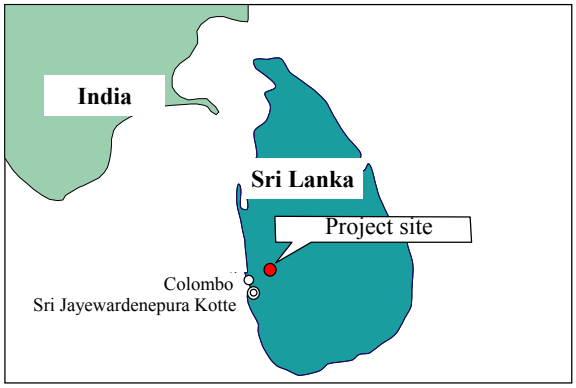
Sri Lanka

Industrial Estates Development Project

Report Date: February 2003
Field Survey: October 2002

1. Project Profile and Japan's ODA Loan



Project site

Seethawaka Industrial Park

1.1 Background

Sri Lanka's protectionist industrial development polices gave way to free market policies with the inauguration of the Jayewardene government in 1979, and the nation began to actively promote the inflow of foreign investment and the establishment of export processing zones, etc. Further, since the 1989 announcement of the "Sri Lanka Industrialization Strategy" aimed at attracting foreign investment and reinforcing the market economy system, the government has been committed to fostering both export and local industries.

Whilst there had been favorable growth in industries with a strong local flavor such as food and beverage production and in the textile and apparel industry, basic industries like non-ferrous metal / metal products and industries involving sophisticated processing such as machine component manufacture remained undeveloped, and the country was seeking ways to grow the industries that would form the base for future industrialization. The need to develop local industries utilizing indigenous resources, including rubber products, the gem industry and so forth, had also been highlighted as being necessary to furthering foreign trade flows.

In addition, there was a high concentration of factories in central Colombo leading to overcrowding in the metropolitan area, which, aside from the issue of urbanization, was fomenting increasing problems of regional disparity. Developing the regions surrounding Colombo had therefore become a key issue, and it was anticipated that the development of industrial parks would work to promote industrialization, create employment and enable local industries in surrounding regions to prosper.

1.2 Objectives

The project's objectives were to construct an industrial park equipped with infrastructure facilities in order to promote exports and foster local industries, and in so doing, to create employment opportunities and boost local industries in the vicinity of Colombo.

1.3 Project Scope

(1) Seethawaka Industrial Park

The construction of the Seethawaka Industrial Park in Arissawella, approximately 57km east of Colombo. The scope of the project is as follows.

1) Land preparation (a 77-hectare site with 71 lots was planned)
2) Road development (access roads, internal roads)
3) Water supply facilities
4) Precipitation drainage system
5) Wastewater treatment facilities
6) Power supply facilities
7) Telecommunications facilities
8) Other miscellaneous facilities (administrative facilities, standard factory buildings, etc.)
9) Engineering services

(2) Katana Industrial Park

The construction of the Katana Industrial Park near Negombo, roughly 34km north of Colombo. Due to the necessity for further environmental studies, engineering services, which are predominantly relating to the additional surveys and the detailed design, are to be provided using project funds.

1.4 Borrower/Executing Agency

Government of the Democratic Socialist Republic of Sri Lanka / Ministry of Industries, Science and Technology *[1]

1.5 Outline of Loan Agreement

Loan Amount Loan Disbursed Amount	3,798 million yen 3,783 million yen
Exchange of Notes Loan Agreement	June 1994 July 1994
Terms and Conditions -Interest Rate -Repayment Period (Grace Period) -Procurement	 2.6% 30 years (10 years) General untied
Final Disbursement Date	October 2000

2. Results and Evaluation

2.1 Relevance

When project appraisal was undertaken (1994), in spite of the fact that the promotion of export-oriented industries and the growth of local industries had been identified as priority tasks in Sri Lanka*[2], industrial parks equipped with infrastructure facilities continued to be scarce. Moreover, the existing export processing zones were not necessarily going out of their way to attract local

[1] When this survey was undertaken the ministry had been reconstituted as the "Ministry of Industrial Development" (MID). Accordingly, the abbreviation MID is used for the executing agency in this report.
[2] Based on the "Sri Lanka Industrialization Strategy" of 1989.

industries. Accordingly, the objective of this project was set to build modern industrial parks that would not only lure foreign-affiliated companies but that would also be open to local industries. This aim was consistent with the then current industrial development policies of Sri Lanka.

The Seethawaka site was selected from among five candidate sites that were of a certain size and had a favorable location, on the basis of a JICA development study*[3]. Ease of land acquisition, convenient access to Colombo as the base for physical distribution, the social environment of the area, and the ability to secure the necessary infrastructure were key conditions in making the selection. Furthermore, investment demand among local companies was confirmed via a questionnaire survey conducted during the project's investigatory stage.

In view of its significance in policy terms and of local needs, etc., the project's relevance at appraisal is highly evaluated. Moreover, since there is still a compelling need to grow both export-oriented and local industries, the project's significance is believed to be enduring.

The survey of the Katana Industrial Park, which was scheduled to receive only engineering services, was cancelled in May 1996 when it was revealed that the industrial park would be in competition with the planned expansions to Katunayake International Airport*[4]. No information on the airport expansion plans was made available to the executing agency and it is believed that it would have been difficult to detect the plans in advance or to effectuate an appropriate response. Accordingly, in view of the content of the services and their status within the project, the cancellation of this survey is not considered to have upset the overall relevance of the project.

2.2 Efficiency

2.2.1 Project Scope

Excluding the aforementioned engineering services for the Katana Industrial Park, there were no major revisions to project plans; however, slight modifications to the initial scope were made as follows.

(1) Solid waste treatment facilities

Since there were plans to construct new solid waste treatment facilities at a site 15km to the west of the industrial park, it was initially envisaged that tenant companies would use these facilities, however, the new facilities were not built due to opposition from the local community. It thus became necessary to secure treatment facilities and the component was added into the project scope.

At the present time, a temporary treatment plant (75m × 65m) has been installed in the industrial park and solid waste is being incinerated and buried appropriately. The operational life of this plant is good for another two years, however, from a long-term perspective, it will be necessary to construct or secure the use of full-scale treatment facilities.

(2) Standard factory buildings

Standard factory buildings were constructed after a preliminary survey revealed there to be numerous companies looking to pay rent that included the factory building as a means of reducing initial investment costs. Initially, five buildings measuring 1,400m^2 and five buildings measuring 2,800m^2 were planned, however, in the end ten 1,433m^2 standard factory buildings were constructed.

[3] The JICA study was undertaken in March 1993 and covered Seethawaka, Mahatenna, Siringampola, Ekala, and Katana as the five leading candidates for the industrial park.

[4] The Ministry of Civil Aviation has jurisdiction over these plans. The expansion plans have still not been implemented due to opposition from local residents.

This decision was made in view of the opinion that smaller factory buildings would facilitate corporate occupancy. Further, this led to the addition of one more lot (tenant lots) for a total of 72.

(3) Consulting services for the Katana Industrial Park

As mentioned above, these services were cancelled in connection with the plans to the expansion of the Katunayake International Airport.

In conclusion, none of these changes resulted in any marked deterioration in the function of the Seethawaka industrial park, and their rationale and content are considered to have been appropriate.

2.2.2 Implementation Schedule

The project was finally completed in September 2000, however, this was only because of continuing work to improve details, and in practical terms the project was completed just three months behind schedule in January 1999. The following unforeseen circumstances arose prior to the completion of construction work.

(1) Rebidding

Although a Korean company won the tender for the construction work, the initial bid was cancelled after the discovery of major defects (the collapse of a structure during construction) in work undertaken by the same company on another project, and a second bid was undertaken. This led to a delay of several months whilst the government approved the project.

(2) Hold ups in construction work due to adverse weather conditions

Construction was delayed by rainfall that was much heavier than had been anticipated.

In spite of the above, the executing agency has pointed to (1) the shortening of the rebid period, (2) appropriate supervision of progress by the consultant, and (3) the system of close cooperation between government organizations*[5] as facilitating the practical completion of the project just three months behind schedule. In conclusion, the implementation schedule was only subject to minor delays, which had virtually no negative repercussions on the realization of project effects, and it is considered that this project was efficiently implemented.

2.2.3 Project Cost

A comparison of planned and actual project costs reveals that, at 2,781 million yen, the foreign currency portion was essentially in line with the initial estimate (2,785 million yen). Local currency portion ballooned by 65% from the initial estimate of 1,683 million yen to 2,772 million, resulting in a total cost overrun of 25%. (The yen loan portion of total project costs was 3,783 million yen against the planned figure of 3,798 million, i.e. a slight underrun.)

The factors resulting in the increased local currency outlay are as follows (converted into local currency).

(1) Road development costs: Rs149 million
(2) Civil engineering costs: Rs543 million
(3) Water supply facilities costs: Rs147 million
(4) Wastewater treatment facilities: Rs73 million
(5) Tax increases: Rs328 million

[5] The Ceylon Electricity Board and the National Water Supply & Drainage Board were specifically named.

Of the above expenditure increases, the figure earmarked in foreign currency for road development costs at appraisal was simply changed into the local currency portion. Again, civil engineering costs were similarly switched, with the increases being primarily attributed to flaws in the topographical map and the lengthened work schedule due to harder-than-expected bedrock*[6].

The primary reason for the increases in the costs for the water supply facilities and the wastewater treatment facilities is that the initial quote was drawn from similar cases in other countries*[7]. Although these expenditure increases were unavoidable in view of the need to maintain the function of the industrial park at an appropriate level, it cannot be denied that measures could have been taken to mitigate the scale of the increase, through the reconfirmation of estimates and the like, and in view of the fact that they linked to an overrun in total project costs there may be slight problems in terms of "efficiency". The shortfall was covered by the government of Sri Lanka.

2.2.4 Performance of Consultants and Contractors

The consultant was a Japanese corporation and it was highly rated by the executing agency for its prompt handling of the rebidding procedures, among other things. As a unique commission for this project, the consultant also provided advice and technical guidance relating to the supervision of the Project Implementation Unit (PIU)*[8] that was set up as an internal unit at MID*[9]; this commission also included advice on marketing and investment promotion*[10].

Whilst the PIU was set up for internal unit, a Coordinating Committee was also established targeting synchronization with other related government ministries and agencies. Although this committee has not been specifically evaluated by the parties involved, as mentioned in 2.2.2, the consensus is that it played a definite role in facilitating the progress of the project.

As may be inferred from the fact that implementation delays were kept to just three months, the construction contractor also garnered high overall praise from the executing agency.

2.3 Effectiveness

2.3.1 Initially Planned Target Achievement Rate

(1) Corporate occupancy

Corporate occupancy at the Seethawaka Industrial Park is as shown below (Table 1).

The cumulative occupancy ratio (on an allotted lot number base) shows that whilst occupancy has been progressing, the pace is slightly slower than planned. Nevertheless, it is comparatively favorable in terms of other industrial parks in the country and the macro socioeconomic environment*[11].

There is evidence that it took eight years to fill the export processing zones at Katunayake and

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[6] Road development costs were essentially as per the original plans (Rs159m in foreign currency), however, civil engineering costs virtually doubled (¥223m in foreign currency) with the increase attributed to the impact of delays in the work process.

[7] According to the project completion report submitted by the executing agency, this was because the quotes for the construction of these facilities cited examples from neighboring countries where procurement conditions are different.

[8] The PIU was comprised of four members, the project director who worked at MID headquarters, plus three managers (responsible for financial affairs, general affairs, marketing) to assist him/her and the field coordinator who worked on site.

[9] The Ministry of Industrial Development, the project's executing agency. See footnote 1.

[10] Based on the hearing with the MID. The MID has indicated that the PIU project director played a significant role within the ministry. However, the success of the project director is attributed to his personal ability (diligence, coordinating skills, etc.) and thus it would be difficult to generalize this as a means of achieving success in the context of other projects.

[11] The real GDP growth rate for 2001 was negative for the first time in 5 years (-1.4%). Further, the increasingl violent ethnic conflicts of recent years are having a major impact on society and the economy.

Biyagama, and that at Koggala and Kandy eleven and eight years, respectively, were needed to reach a 50% occupancy ratio. The Board of Investment of Sri Lanka (BOI) reports that they have received inquiries about all the vacant lots at Seethawaka Industrial Park and they anticipate that the lots will all have been filled within the year.

Table 1: Occupancy Situation of Seethawaka Industrial Park

	1997	1998	1999	2000	2001	2002
Cumulative number of allotted lots	-	3	14	26	45	50**
Actual occupancy ratio* (%)	-	0.4	19.4	36.1	62.5	69.4
Target occupancy rate (%)	-	5	30	60	80	100
(For reference)	(Implementation schedule: July 1997 – September 2000)					
Real GDP growth rate (%)	6.7%	5.4%	4.0%	6.6%	-1.4%	-
Foreign direct investment (US$ m)	430	193	176	173	-	-

*Allotted lot number ÷ 72 (total number of lots) Source: BOI, IMF statistics, ADB statistics

**Excluding 7 lots under construction/being readied for occupancy, there are 30 companies in commercial operation occupying 43 lots. This includes some companies occupying several plots, thus the number of companies in commercial operation and the allotted lot number may not necessarily coincide.

As mentioned above, although occupancy is favorable as compared to other industrial parks, in the past, there have been cases of companies that have applied for lots but have shown no inclination to move in over the long term, which has hampered growth in the occupancy rate. MID, which was initially responsible for managing lot occupancy, has never had the authority to undertake land transactions, etc., which meant that cabinet approval was necessary for each and every cancellation and/or penalty applied to a non-occupying company, and it is possible that this inefficiency linked to the situation under which a number of non-occupants were ignored. However, BOI, which has greater independent authority, is now responsible for lot management and it reports that the annulment of contracts with companies that prove difficult to contact has been proceeding of late.

In order to elucidate the key reasons for the comparatively favorable occupancy rate at Seethawaka Industrial Park, a survey was undertaken of 30 tenant companies that are already in commercial operation (responses were received from 23 companies). The results indicated that Seethawaka site has the following strengths.

(a) Favorable location

Many companies were attracted by the proximity of Colombo Port as a base for physical distribution.

(b) Favorable investment conditions

According to BOI data, ground rents and lease premiums at Seethawaka Industrial Park fall into the lower half (Figure 1) of the twelve industrial parks/export processing zones under BOI jurisdiction*[12]. Moreover, preferential tax measures*[13] not available at other industrial parks were

[12] It was not possible to clarify the background to the setting of the prices (rents and lease premiums) shown in Table 2 at Seethawaka Industrial Park during this survey. However, there is evidence that the comparatively cheap rates have contributed to the increases in the occupancy rate. On the other hand, the low price settings have undeniably depressed the profitability of this project.

[13] All companies resident in industrial parks under BOI jurisdiction enjoy 5 years of immunity from taxes on their profits, however, whilst at other industrial parks this period commences with the start of commercial operations, at Seethawaka it commences when a company first starts to turn a profit.

offered during the campaign to solicit tenants.

(c) Good infrastructure facilities

Access roads and internal roads have been developed to a higher standard than in other industrial parks. Further, the modern water treatment facilities are also excellent for the treatment of factory effluent*[14].

(d) Ease of procuring human resources

Unlike other industrial parks, it is easy to secure employees from areas near Seethawaka, which represents a favorable circumstance for employers. Moreover, many of the tenant companies pointed to the high quality and comparatively low expense of personnel recruited locally (mainly female high school graduates).

Figure 1: Ground Rents and Lease Premiums (US$/acre)

	Ground rent (annual)	Lease premium (for 50 years)
Katunayake Export Processing Zone	3,125	25,000
Biyagama Export Processing Zone	3,125	22,500
Koggala Export Processing Zone	3,125	12,500
Pallekele Industrial Park	1,500	3,000
Mirigama Export Processing Zone	1,500	5,000
Wathupitiwela Export Processing Zone	1,500	7,500
Seethawaka Industrial Park	**1,000**	**10,000**
Mawathagama Export Processing Zone	1,000	5,000
Horana Export Processing Zone	1,000	10,000
Polgahawela Export Processing Zone	1,000	5,000
Walpita Dedicated Economic Center (Block A)	1,000	5,000

Source: BOI

Occupancy rates in terms of industry categories are as shown below. As Table 2 illustrates, the share of textile/apparel related companies is extremely high, and by contrast, little progress has been made in entry by local industries (rubber products, jewelry, etc.), the focus of high initial expectations.

Since the reasons for this are manifold it is difficult to draw any conclusions, however, a number of conjectures may be made on the basis of the results of this survey. Namely, since a government directive prohibits manufacturers of rubber products from moves (involving the closure of the plant) and requires that they move into Seethawaka as an expansion of the existing plant, it is believed that manufacturers have hesitated due to the investment involved. Also, it is believed that it was not ultimately possible to stimulate that much demand for large-scale processing facilities among gem processors.

Table 2: Industry Composition of Companies in Commercial Operation

	Textiles / clothing	Rubber products	Food products	Mining / Chemicals	Other	Total
No. of companies	19	4	2	2	3	30
Component ratio (actual)	**63.3%**	**13.3%**	**6.6%**	**6.6%**	**10.0%**	**100.0%**
Component ratio (planned)	20.0%	20.0%	5.0%	20.0%	35.0%	100.0%

[14] For example, one company cited this as being the most attractive point, stating that, “Manufacturing processes require large volumes of water, and the superiority of both the water supply system and the wastewater treatment system was the deciding factor in the selection of Seethawaka”.

* The (planned) component ratio was the one assumed at appraisal.

(2) Other perspectives

It was not possible to obtain appropriate data on overall and individual investments made by tenant companies.

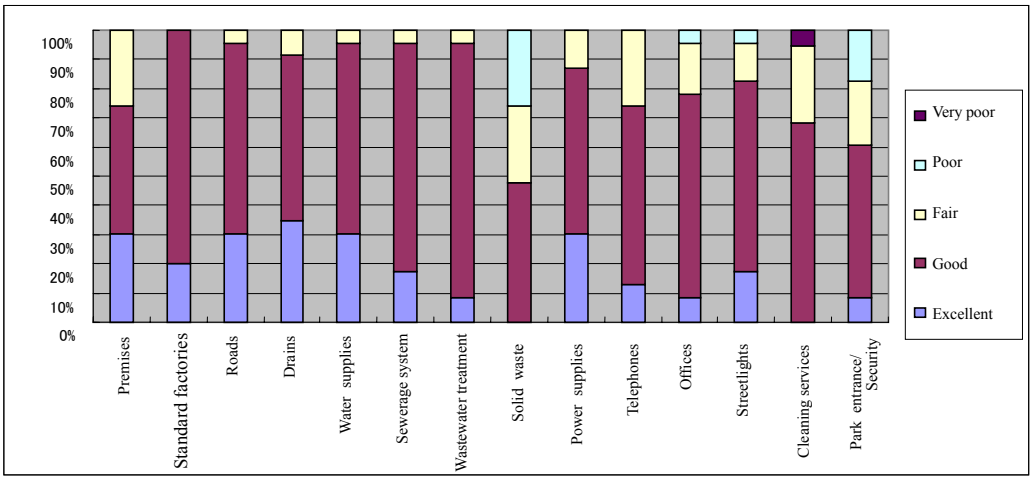
As to import and export performance, 81% of respondent companies' gross sales was earned by exports (2001). This provides support for the large number of companies citing the locational advantage of "proximity to Colombo Port" and simultaneously indicates that the objective of advancing export promotion is being met.

(3) Satisfaction with the industrial park

Thirty tenant companies were requested to evaluate their satisfaction with the various facilities and services provided by the industrial park on a 5-grade scale; the results are illustrated as component ratios in Figure 2. Levels of satisfaction are generally high.

Nevertheless, the level of satisfaction for some items is comparatively low, noticeably so for "solid waste", etc. As mentioned in 2.2.1, this is believed to be the influence of a series of circumstances surrounding the waste treatment facilities. Additionally, although upwards of 60% of companies gave favorable answers in respect of "cleaning services" and "park entrance and security", levels of dissatisfaction are comparatively higher than for other items.

Figure 2: Evaluation of Seethawaka Industrial Park Facilities & Services (distribution ratio)



2.3.2 Recalculation of Internal Rates of Return (IRR)

At appraisal, the project's financial internal rate of return (FIRR) and economic rate of return (EIRR) were calculated to be 7.2% and 9.3%, respectively. Recalculated upon completion, both figures were negative, with the result that doubts linger over the profitability of the project.

The considerable drop in the FIRR is attributed to the fact that investment costs (the local currency portion of) were 25% higher than initially planned (see 2.2.3) and that annual revenues (predominantly from ground rents) have stayed at around 30% of the initial target*[15]. It is conceivable that the reason revenues are lower than the initial plans may be because the targets were

[15] Ground rent per unit (annual) was taken as Rs195/m^2 ($4/$m^2$) at appraisal, but has dropped by as much as 70% to its current level of Rs59/m^2 ($0.6/$m^2$). The executing agency was repeatedly asked to provide reasons for this, but it was not ultimately possible to obtain a conclusive response.

optimistically estimated in the first instance*[16].

The reason that the recalculation yielded a negative EIRR is attributed to the increases in project costs, but was also due to the fact that the ground rents and lease premiums, which form the basis for the benefit calculation, were considerably lower than was assumed at appraisal.

With the exclusion of initial investment costs, such as construction costs, etc., annual revenues (the total from ground rents, factory lease rents and other income) from 2003 onwards are projected at Rs67.8 million, and it is planned to use this revenue to cover maintenance costs (set at an average Rs39.4 million p.a. for FY03-FY09 and at Rs52.3 million from FY10 onwards).

2.4 Impact

2.4.1 Economic Impacts

Three key objectives were advanced for this project at appraisal, namely, (1) export promotion and foreign currency acquisition, (2) the fostering of local industries, and (3) the creation of employment opportunities.

(1) Export promotion

A comparison of differences in the level of export earnings covering Seethawaka Industrial Park up to the national level is shown below (Table 3). Gross export earnings at the industrial park reached around Rs2bn in 2001. Given the expectation that companies will continue to occupy and operate, the total value of exports will likely also continue to grow. With regard to the performance of individual companies, 43% of the 23 companies that responded to the survey stated that they are attaining their targets (production volumes and sales, etc.), whilst 39% are running slightly below the target level.

Although there is a need to remain alert to future progress, it is inferred that Seethawaka Industrial Plant is making a definite contribution to the achievement of this key objective. Judged on the basis of current occupancy at Seethawaka and the nation's macro environment alone, it is believed that the level of achievement will continue to trend upwards over time.

Table 3: Category-based Fluctuations in Export Earnings (Rs million)

	1997	1998	1999	2000	2001
Seethawaka Industrial Park	**0**	**128**	**295**	**872**	**1,977**
Textiles/apparel product sector	134,455	159,303	171,068	226,930	227,360
Industrial sector	203,114	233,508	250,516	325,931	331,686
All Sri Lanka	274,193	310,398	325,171	420,114	430,372

Source: Central Bank of Sri Lanka, Statistical Yearbook (2001), BOI, etc.

(2) Forstering local industry

As mentioned above (see 2.3.1), occupancy by companies engaged in local "rubber product" and "jewelry" industries was initially forecast at a 20% share of the total, respectively, however, the actual figures are 13.3% for the former and 6.6% for the latter. In consequence, the impact of the

[16] The ground rents used as the basis for revenue calculations were set in reference to those for industrial parks in neighboring countries. At the time of the JICA study (1993) the figure (US$/$m^2$) for Seethawaka Industrial Park was set at US$4/$m^2$ having referenced the Philippines (2.02-3.17), Thailand (1.43), India (0.63-1.88), Pakistan (5.08-6.09), etc. Other domestic industrial parks were also sourced, however, rents were being kept at a low level through government subsidies and since it was assumed that future privatization would push rents up, the rents in neighboring countries were referenced as opposed to those within Sri Lanka.

project in this category is limited at this time.

(3) Promoting employment opportunities

At appraisal, it was assumed that the industrial park would hire 19 thousand workers all told. By comparison, the number of employees on the payrolls of the companies responding to the survey (23) stood at 7,190 in 2001. Evaluated in terms of the occupancy rate (on an allotted lot number base) which has now reached close to 70%, whilst employee numbers will continue to grow in line with increased occupancy, it is doubtful as to whether the initially targeted figure can be reached.

A breakdown of the occupational classifications of these employees (Sri Lankans), shows that the majority are skilled workers, accounting for around 60% of the total. In terms of gender, women account for 68%, and in the sense that it is providing opportunities for local women to enter society and join the work force, it is inferred that the project is making a certain contribution in this area*[17].

2.4.2 Impact on the Local Residents

In developing the site of the industrial park some relocation of residents was necessary, however, appropriate procedures were followed in line with domestic legislature and the process was without hiccup. BOI reports that there have been no major disturbances between the government and the citizenry to date. The details of the resettlement are given hereunder.

The process covered 450 people in 160 households, and a site some 3km from the industrial park was selected for the relocation. . Each household was given the right to move into a 295 square-foot house with mains water supply, with approximately Rs30.7 million being paid for housing construction, Rs23.2 million for land acquisition costs, and a total of Rs8.1 million to registered laborers in compensation for the loss of employment opportunity.

On the other hand, the following positive impacts on the local community have been confirmed.

· Employment opportunities have been created for as many as 2,250 people living within a 6km radius of the industrial plant.
· Some 15 commercial businesses, including restaurants have been built near the industrial park.
· Employees on the payrolls of tenant companies are generating income from rent for local residents.

2.4.3 Environmental Impacts

According to MID, there have been no reports, to date, of specifically adverse environmental impacts, including air pollution, water pollution and noise, during site development or since the start of commercial operations by tenant companies. No monitoring systems have been established, but periodic inspections of effluent are conducted at the industrial park and it is clearing government (Central Environmental Authority) environmental standards (effluent standards). However, during the hearing with the local authority (Seethawaka Municipal Council) it was pointed out that there are concerns over the impact of soot from the incineration facilities on the health of local residents. To overcome the fears of local residents, there is a need for certain countermeasures to be undertaken such as regular monitoring and the public release of related data.

Furthermore, in light of the fact that these facilities are forecast to exceed capacity within the next two years, and that a comparatively high degree of dissatisfaction was expressed toward the park's waste treatment facilities in the responses to the questionnaire, it is imperative that plans be drafted and implemented for waste treatment facilities at the earliest time and that the utmost

[17] According to government statistics, the gender ratio for the nation's workforce is 67 (men): 33 (women). (Labor Force Survey, the Central Bank Annual Report of 2001.)

consideration be given to local residents through measures against soot, etc.

2.5 Sustainability

2.5.1 Current Status of Facilities

The on-site inspection conducted during this survey revealed that the facilities are being appropriately maintained*[18], and this impression was further corroborated by the results of the survey of tenant companies, as there were virtually no negative responses in terms of overall satisfaction and all occupants gave an "excellent, good or fair" rating. From the above, it is considered that the infrastructure facilities at Seethawaka Industrial Park are not in need of any special maintenance, etc.

2.5.2 Issues Currently Concerned

The maintenance system distributes the work among several organizations depending on the facilities as shown below (Table 4). In principle, maintenance work is conducted on a daily basis. According to MID, they have not received any reports of dissatisfaction or complaints from tenant companies, and they do not perceive there to be any particular problems in this area. Although, as mentioned in 2.3.1, satisfaction with some facilities and services is comparatively low, it is hoped that collaborative efforts by the executing agency and the maintenance organizations to improve these aspects will produce results.

Table 4: Seethawaka Industrial Park Maintenance System

Facility	Management organization	Remarks
Access roads	BOI	-
General park maintenance		Internal road, building management, park cleaning, streetlights, security, etc.
Water and sewerage facilities*	National Water Supply and Drainage Board（NWSDB）	Intake, drainage, water treatment facilities, etc.
Power facilities*	Ceylon Electricity Board（CEB）	Transmission and distribution facilities, substations, etc.

*Maintenance of water and sewerage and power facilities is outsourced by the BOI.

2.5.3 Operation and Maintenance

(1) Organizational System

BOI has been responsible for maintenance since the park was completed. This came about after maintenance operations were transferred from the MID-affiliated Project Implementation Unit (PIU), the organization that was assumed to take charge of maintenance at appraisal, to BOI in September 2001. This transfer was based on the judgment that BOI, with its expertise and authority in land management operations (tenant lot quotas, etc.), would be better suited to undertaking the overall management of the park, i.e. including both land management and maintenance operations. As is detailed below, all operations relating to Seethawaka Industrial Park are currently in the process of being transferred from MID to BOI.

Since September 2001, BOI has been working to settle the issue of non-occupying companies, conducting examinations relating to investment and companies, and undertaking real estate

[18] The on-site inspection was conducted in conjunction with a local consultant with knowledge of industrial parks.

management, and is responding to the diverse needs of the companies. It has an office within the industrial park that handles operation and maintenance operations. The BOI head office in Colombo is responsible for supervising the Seethawaka office and for overall coordination, budget management and so forth.

(2) Technical Capability

BOI has a total staff of 1,500 nationwide. It has assigned 8 management level personnel, 12 technicians and 37 other employees to its Seethawaka Industrial Park office, which MID, the original executing agency, judge to be sufficient number for the local office. This is supported by the generally high appraisal of facilities and services evidenced in the survey of tenant companies.

(3) Budget

According to the project completion report, approximately Rs32 million and Rs16 million was spent on operation and maintenance in 1999 and 2000, respectively. The maintenance budget has been maintained at the minimum level necessary up to 2003, and there are plans to increase the figure from 2004 onwards*[19].

To date, maintenance and operation costs have been collected separately from ground rents, however, there are plans to include them in the rent hereafter.

As shown below, lease premiums and ground rents went up in July 2002 (Table 5). However, they remain lower than at either Katunayake or Biyagamathe, the two neighboring industrial parks.

Table 5: Seethawaka Industrial Park Rental Rates (US$)

Cost item / System	At completion	Since July 2002
Lease premium (50 years)	$10,000	$20,000
Ground rent (per acre)	$1,000	$2,500
Period of tax exemption	5 years	3 years

As stated above, satisfaction with facilities and services is high and provides no specific grounds for companies to refuse to pay rents, etc., and judging from current circumstances it is believed that the maintenance budget will continue to be stable and secure.

(4) Financial Status of Maintenance Organization

Regrettably it was not possible to obtain financial data from BOI. This is because BOI is currently in the midst of implementing structural reform and it was extremely difficult to obtain pertinent financial documents. It was not possible to acquire any materials that might substitute appropriately during this survey either. It is thus very difficult to assess the sustainability of the industrial park from a fiscal perspective at this time. Nevertheless, as mentioned in 2.3.2, the project's IRRs are negative as the result of the cost overrun and suppressed rents, and in order to evaluate sustainability it is crucial to know which organization is to assume the burden of initial construction costs (excluding ordinary operating expenses) and how. Accordingly, the final evaluation of sustainability will need to be made having monitored the direction of structural reforms at BOI. An outline of the structural reforms that are currently in progress is given hereunder.

In the first instance, the MID has been renamed and is now the Ministry of Enterprise

[19] A comment voiced at the hearing conducted at the BOI Seethawaka Industrial Park office.

Development, Industrial Policy and Investment Promotion; as the "policy authority", it will be mandated to undertake policy formation in respect of industrial development as a whole. BOI has been placed under the control of this ministry and is to be responsible for the implementation of various policies aimed at promoting investment. Furthermore, there are plans for the Regional Economic Development Commissions under BOI control to be given jurisdiction over all industrial parks in the future.

3. Feedback

3.1 Lessons Learned

Surveys must be enriched so as to have greater cognition of post-completion profitability.

The estimates for the cost of constructing water supply and wastewater treatment facilities were too low because examples from neighboring countries were applied without modification, and this ultimately generated an overrun in project costs. In the future, procurement methods and costs must be properly vetted for each component in order to avoid a similar circumstance from arising.

As demonstrated in 2.3.2, the profitability of this project, as verified ex-post, has been poor, which essentially equates to, "We've built an outstanding industrial park, but it's not profitable". The "comparative competitiveness" of the park is undoubtedly an attraction to tenant companies and the level of occupancy is more favorable than at other industrial parks. Notwithstanding, any foreign currency earnings from exports by tenant companies are destined to become national income and will do no more than cover the deficits of the industrial park.

It is conceivable that this is because rents at representative industrial parks in neighboring countries were utilized in compiling advance earnings forecasts, without sufficient recourse to the figures at other industrial parks in Sri Lanka or to demand forecasts for domestic and international companies, with the result that rents were ultimately overestimated. Accordingly, when undertaking similar projects in the future domestic examples should be sourced when forecasting earnings from rent, and thorough surveys need to be undertaken concerning the desired level of corporate rents.

Locational conditions, investment conditions, infrastructure facilities, and the availability of human resources are key to advancing occupancy rates.

The factors underpinning the success of Seethakawa Industrial Park, as elucidated via the questionnaire asking tenant companies to state why they selected Seethawaka over other industrial parks, can be applied during investigations for future projects as the standards that must be fulfilled. In short, (1) locational conditions, (2) investment conditions, (3) infrastructure facilities, and (4) human resource procurement, are the four conditions that need to be satisfied, concurrently, in developing an industrial park. Scrupulous marketing is also considered to be important to project implementation.

There is a need for projects to be executed within an appropriate framework under the control of executing agencies with expertise in this field.

This project was initially placed under the jurisdiction of the MID, because it was responsible for industrial development and the project's objectives were to develop an industrial park that would contribute to regional development and employment creation. However, responsibility for the project was subsequently transferred to BOI, because this organization had greater expertise in land

management operations (tenant lot quotas, etc) and authority in the field.

There were in fact inefficiencies in the land allocation operations conducted by MID and it is believed that these ultimately have somewhat affected the growth in the occupancy rate. Accordingly, any similar projects to be undertaken in the future must include consideration of measures such as intimate coordination with organizations specializing in investment operations from the outset, and clearly demarcating responsibility for construction and operation, and so forth.

3.2 Recommendations

(To the Board of Investment)

(1) It is not currently possible to obtain data on the fiscal status of BOI and certain aspects of its finances remain unclear, however, in view of the poor profitability of the industrial park, it is hoped that the organization will examine and implement measures to ensure the managerial viability of Seethawaka, including increasing rents to a more appropriate level.

(2) As mentioned in the main text of this report, the solid waste treatment facilities are currently being operated on an interim basis. Since the waste treatment capacity of these facilities is only good for another two years, it is necessary to either construct or secure full-scale treatment facilities at an early stage.

There are apparently fears that the soot being generated by the incineration of waste at the temporary facilities may be affecting the health of local residents, and the establishment and reinforcement of a monitoring system is an urgent priority. Moreover, every effort must be made to ally the concerns of the local community by holding explanatory meetings and, where necessary, effectuating improvements.

Comparison of Original and Actual Scope

Item	Plan	Actual
(1) Project Scope		
(Seethawaka Industrial Estate)	1) Land preparation	1) Essentially as planned (Change in lot number: 71→72)
	2) Road development	2)As planned
	3) Water supply facilities	3) Slight increase in supply capacity
	4) Precipitation drainage system	4) As planned
	5) Wastewater treatment facilities	5) As planned
	6) Power supply facilities	6) As planned
	7) Telecommunications facilities	7) As planned
	8) Other miscellaneous facilities	8) Factory buildings were constructed after being partially scaled back. The post office, police office, etc., that were initially planned but had not been constructed yet. A temporary solid waste treatment facility was constructed.
	9) Engineering services	9) As planned
(Katana Industrial Estate)	1) Engineering services	1) Cancelled midway
(2) Implementation Schedule		
(Seethawaka IP)		
Consultant selection	Jul. 1994 – Jun. 1995	Unknown - Mar. 1995
Detailed design	Jul. 1995 – Apr. 1996	Apr. 1995 – Apr. 1996
Procurement procedures	Apr. 1996 – Apr. 1997	Aug. 1995 – Jun. 1997
Land acquisition, etc	Nov. 1996 – Sep. 1997	Apr. 1995 – Oct. 1996
Construction execution	May 1997 – Oct. 1998	Jul. 1997 – Sep. 2000
(Katana IP)		
Engineering services	Jan. 1996 – Oct. 1996	Sep. 1995 – May 1996
(3) Project Cost		
Foreign currency	2,785 million yen	2,781 million yen
Local currency	1,683 million yen	2,772 million yen
Total	4,468 million yen	5,553 million yen
ODA loan portion	3,798 million yen	3,783 million yen
Exchange rate	1 rupee = 2.22 yen (As of Feb. 1994)	1 rupee = 1.41 yen (As of Jul. 2000)

Third Party Evaluator's Opinion on
Industrial Estates Development Project

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Relevance

From a number of important viewpoints, SIP has great relevance to Sri Lankan industrial development. First, it continues to "foster local industries" largely by providing space for local entrepreneurs setting up business jointly with foreign enterprise. Fully locally owned firms however, form an insignificant minority of SIP enterprises.

Second, the state of the art industrial sites in SIP, satisfying high environmental and other standards, are likely to help boosting the image of Sri Lankan manufacturing industry internationally, at a time when there are strong international pressures on developing countries to maintain decent labour and environmental standards within their factories producing for developed country markets.

Third, SIP helps in the regional dispersion of industry. Located outside the Greater Colombo area, but not too far away from Colombo, it is attractive to industrialists while at the same time helping the government to address the extensive criticisms about the pattern of Colombo-centred development.

Since commencement of work on SIP, there has been a change of government (December 2001) in Sri Lanka, but without any significant changes in industrial policy or in official attitudes to industrial parks. A more important change was the commencement of a process of negotiations for peace between the government and the LTTE, the rebel group in the north-east of the country. This seems to have created general optimism regarding investment and growth prospects of the country. Once the peace process reaches an advanced stage, enhancing investor confidence, the SIP should soon become fully occupied.

It is difficult to determine whether the low degree of effectiveness of SIP in terms of achievement of objectives was due to some weaknesses in the Park design. Focusing only on one aspect, total infrastructure cost of employing a person in this Park may appear rather excessive. In-depth research is needed to comment on whether per worker infrastructure costs could have come down if a different design was adopted in the construction of the Park.

Impact

Starting from zero in 1997, export earnings of SIP industries, in dollar terms, grew very rapidly in the next three years – 111% in 1999, 172% in 2000 and 94% in 2001. As full occupancy is gradually reached in future, annual export growth of SIP industries may decline further. SIP will anyway remain an important source of Sri Lanka's industrial exports.

According to the BOI, 30 companies in SIP (May 31, 2003) employ 9798 persons (72% female), Workers are recruited from the nearby areas of largely agricultural territory. The impact of the Park not only on local people's incomes but also on social practices in the region is significant. The female-dominant employment structure has not, however, led to social problems related to women workers as in the case of the Katunayake FTZ.

The present managers of SIP do not appear to place any significance on the original objective of fostering local industry, may be because there is little actual demand from completely local enterprises for lots in the Park. Business interest to use this location to work on locally available raw materials like gems and rubber has also been weak. Currently, there are a few rubber industries but absolutely none working on gems. No gem industry is found even among those waiting to enter into commercial production within the Park.

The average observer is impressed by the high environmental standards maintained in the construction of SIP. The evaluation report refers to the adverse health impact that is likely from the soot emitted from the incinerator. Every person I have spoken to was of very favourable opinion about the high standards within the Park of air, water and noise pollution levels. SIP located in a largely agricultural area appears to merge well with the environment.