The Dube TradePort
and
The King Shaka International Airport
Project Overview
SYNOPSIS

Previous studies and analyses for the creation of the King Shaka International Airport were focused on the replacement of the Durban International Airport. This work resulted in a recommendation for relocation by the year 2006 with a negative economic gap of R172 million.

As a result of this evaluation, KwaZulu – Natal reconsidered its goal in the context of an economic strategy which incorporates the Dube TradePort. This involves the creation of a Southern African logistics gateway with a focus on freight and value added logistics activities.

The air platform developed as part of this strategy could therefore be utilized both for the movement of airfreight and the movement of time critical passengers.

In order for KwaZulu – Natal to meet its overall objective it is proposed that the overall programme include a number of cost justifiable ventures. These synergistic ventures include:

- The Dube TradePort as an industrial development zone focused on time critical manufacturing, processing and transportation activities and their associated cyber needs

- The King Shaka International Airport focused on business and tourist passenger traffic.
As a result of the financial analysis of the two projects, it has been determined that they can be implemented as private/public sector ventures.

In order to facilitate this process, it is proposed that a not-for-profit business venture (KZN–SPV) be created as part of the commercial development model.

The DTPV (Dube TradePort Venture) and KSIAV (King Shaka International Airport Venture) projects can then be implemented with varying levels and types of investment by the KZN–SPV.

The projects can therefore proceed as private/public sector ventures which are part of an overall strategy and master plan.
The Dube TradePort and The King Shaka International Airport

SYNOPSIS

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1. PROJECT OVERVIEW & FINANCIAL ANALYSIS – INTRODUCTION

1.1 Background

The replacement of the Durban International Airport with a new passenger airport at La Mercy has been under review since the 90’s.

This includes a study by the KZN Government and Airport Co. Ltd (later ACSA) in 1995 which recommended that the relocation of the passenger airport should not occur later than 2010.

The most recent analysis of the feasibility for the development of the King Shaka International Airport at La Mercy was conducted by the Schiphol Group. This detailed feasibility study focused on relocation of the Durban International Airport to La Mercy and the study was completed by the end of the year 2000. The objectives of the study included:

- To assess the viability and feasibility for the earlier relocation of the current Durban International Airport to La Mercy.

- To evaluate the comparative macroeconomic impacts for the relocation of the existing airport versus its further development as a passenger airport at the existing site.
To indicate possible financial arrangements for the new passenger airport.

The evaluation was conducted on the basis of projected passenger volumes and recommended a relocation by the year 2006 with a negative economic gap of R172 million.

As a result of this evaluation the KwaZulu – Natal Government reconsidered their goal in the context of an economic strategy which utilises the air platform for the development of the Dube TradePort as an integral part of a multimodal logistics gateway.

The Dube TradePort capitalizes on the creation of an Industrial Development Zone with an intercontinental air capability. This is to be connected via road and rail by dedicated feeder systems to the ports of Durban, Richards Bay and City Deep, an inland port in Gauteng. In addition it is to be connected to the international SAFE undersea cable providing the location with high-speed broadband access.

The Dube TradePort and King Shaka International Airport therefore provide an enhanced operating environment to that existing at the Durban International Airport providing additional financial and economic value to its stakeholders.

This new concept was developed as a resultant of a study performed by AECOM – McClier, jointly focused by the United States Trade Development Agency, which defines the
operational concept and activities. The concept further proposes a business plan which incorporates the implementation of the project on a public – private sector basis.

### Project Objective

- **To create an integrated multimodal (sea, air, road, rail) logistics gateway** on the East Coast of Southern Africa

- **To maximise the use of existing infrastructure** in terms of road and rail links, the Ports of Durban, Richards Bay and the Inland Port at City Deep Gauteng

- **To provide an intercontinental air platform, with enhanced levels of service** to move time sensitive goods overnight to the major world markets

- **To capitalise an e-Commerce and the Virtual Market** by providing the national and international broadband capability together with a CyberPort – Cyber Village

- **To create an internationally competitive environment** addressing physical infrastructure, cyber and human resource needs
1.2 Objective

As part of the AECOM – McClier study, a prefeasibility of the business and financial implications of the Dube TradePort project provides a basis for the future implementation of the project. This has the objective of defining the business considerations and opportunities which arise from the scheme.

It further provides a proposed business plan for the initial start up and phasing of the project in order to maximize the economic returns. This is to be achieved utilising the overall Master Plan that has been developed to support the Operational Concept.

1.3 Methodology

The methodology utilized for the feasibility analysis is based on the following principal criteria:

- The definition of the operating environment of the Dube TradePort as part of a KZN Logistics Gateway

- The physical Master Plan that was developed in order to perform the functions defined as part of the Operational Plan

- The definition of the principal ventures with their associated income sources which can be generated from the project
The definition of expected freight operational levels and activities to be achieved over a fifteen year period

The estimated resultant facility absorption (growth) needs over the fifteen year period

The associated potential job growth according to the expected scenarios

The business plan proposed for the implementation of the project with associated cost and income projections

The evaluation of sources of capital/finance

The sensitivity analysis of the viability of the project under differing scenarios.

This analysis therefore acts as the basis for the development of the structured finance plan and any further detailed feasibility analysis.

1.4 Conclusion

As a result of this analysis it is determined that the Dube TradePort is a feasible project, whose viability and level of financial success is a function of implementing the Operational Plan and promoting the project on a national and international basis.
In addition, alternative scenario’s should be investigated as to the Dube PradePort’s participation and/or contribution to the creation of the intercontinental air platform. This can include runway landing/user fees, or a capital contribution to the creation of the platform according to a formula which enables both the Dube TradePort and the King Shaka International Airport to operate as synergistic ventures.

The study therefore provides the basis for the finalisation of the structured finance and implementation plans.
2. COMPETITIVE STRATEGY AND OPERATIONAL CONCEPT

2.1 Project Background

The proposed Industrial Development Zone at La Mercy is part of an initiative by KwaZulu–Natal to create a Logistics Gateway on the East Coast of Southern Africa, in order to effectively participate in export driven activities and international trade.

To achieve this requires the creation of an operational and physical environment which enables its participants (tenants, operators and service providers) to achieve increased levels of productivity and international competitiveness.

The site of approximately 3,000 hectares is located at La Mercy within the Durban Metro area and has the objective of being an integral part of a Southern African logistics network.

It capitalises on the existing principal N2 road feeders to and from Durban and Richards Bay, in addition to the existing rail link with the Nyaninga Station, which adjoins the site.

The Industrial Development Zone will therefore capitalise on the transportation existing links to seaports and the inland port at City Deep in Gauteng. This includes Durban Harbour as the largest container port in sub-Saharan Africa.

In addition, the King Shaka International Airport, to be located at the site, will also
provide airside access for the movement of time sensitive goods on a national and international basis.

The IDZ at La Mercy or Dube TradePort is therefore a critical element of the initiative in order to provide a value added logistics capability. Ventures that establish themselves within the Industrial Development Zone will consequently be able to effectively participate in the Global Supply Chain.

This should provide a catalyst to South African economic development and job creation as a globalised developing country. It further enables a focus on high value added exports to the principal world importers.

The location of enterprises within the Dube TradePort or the adjoining areas is therefore desirable to MultiNational and South Africa Corporations focused on international trade. This includes manufacturing, transportation, logistics, warehousing, and service organizations as participants in the Global Supply Chain.

An additional advantage of the location is the advanced telecommunications capability provided at the site facilitating the participation of these enterprises in e-Commerce, including the order taking and fulfillment activities.
KwaZulu - Natal - South Africa Initiative

The Elements of the KZN Logistics Gateway

**Seaport**
- Durban Harbour
- Richards Bay

**Inland Port**
- City Deep - Gauteng
- Integrated Freight Rail Link

**Airport**
- King Shaka International Airport

**Industrial - Trading Development Zones**
- Richards Bay IDZ
- Dube TradePort (La Mercy) IDZ
- South Industrial Basin
- City Deep Terminal and IDZ

**Rural Production for Export**

**e-Commerce**
- CyberPort - Cyber Village
- International Gigabit Connection
2.2 Competitive Strategy

The Dube TradePort including the Industrial Development Zone at La Mercy will provide those located within the zone together with the region and South Africa a competitive advantage by providing the capability of a value added logistics platform, as part of a Continental Gateway.

This capability enables the movement of goods on a time critical and time definite basis providing higher levels of service than those existing for the movement of time sensitive goods on an intercontinental basis. If further facilitates the sea – air function which enables the change of mode, while processing goods as an integral part of the transportation function. This will enable ventures created within the zone both to focus on the export of their products and services and to perform value added logistics activities according to international standards in levels of service, quality and cost.

The operational concept was developed as a result of a competitive analysis of Industrial Development/Special Economic Zones and bonded operations in North America, China, and the Middle East.

This analysis included such successful projects as:

- Alliance, Texas – as a private sector multimodal logistics platform, incorporating a freight driven airport
and a Foreign Trade Zone

➢ The Jebel Ali Free Trade Zone as an integral part of the Dubai logistics platform incorporating two ports, an airport and associated bonded areas

➢ Hong Kong and the adjoining Special Economic Zones, together with Hong Kong’s present plan to implement a Competitive Strategy and Master Plan, in order to maintain its position as an International and Regional Transportation and Logistics Hub

➢ The creation of Special Economic Zones associated with multimodal logistics platforms is a recognised means for economic development and job creation, with a primary focus on participating in the Global Supply Chain.

It is consequently being emulated as a successful formula on an international basis in developing countries.

Therefore, an all encompassing Strategic Master Plan, which addresses all the required of the soft and hard infrastructure needs for the project development at La Mercy, has been developed.

The overall strategy also capitalizes on the use of the air platform both for freight and passenger use, which improves the amortisation of capital expended to provide this air capability.
KwaZulu - Natal - Logistics Gateway at La Mercy

KZN Logistics Gateway at La Mercy
Incorporates:

- **3,000 Hectares Masterplanned Development Incorporating**
  - Dube TradePort - Industrial Development Zone
  - King Shaka International Airport

- **Intercontinental Air Platform for Passenger and Freight Operations**
  - Initial runway length 3,200 m expandable to 4,000 m
  - 24 hour operating capability

- **Industrial Development Zone Incorporating:**
  - Intermodal yard with Rail access
  - Time sensitive manufacturing and value added logistics areas
  - Incubator and multi-tenant facilitates
  - Human resource centre and pilot organic production facility
  - CyberPort and Cyber Village utilising a gigabit backbone
2.3 Operational Concept

In order to create the logistics platform, as part of the competitive strategy, the Dube TradePort including the Industrial Development Zone capitalises on the existing infrastructure in KwaZulu – Natal and Gauteng. This includes such transportation hubs as:

- The Port of Durban, as the largest container part in sub Sahara Africa, with a throughput of approximately 1.2 million TEUs per annum and the adjoining South Industrial Basin

- The Port of Richards Bay as one of the largest bulk ports in the world with a focus on time definite industries to be located in its adjoining IDZ

- The road and rail infrastructure including the rail feeders to and from Gauteng which enables the creation of bonded feeders between the individual locations

- City Deep as an Inland Port and the Johannesburg International Airport with its belly cargo capability, which handled approximately 420,000 to 440,000 tons of air cargo per year in the years 2000/2001.

In addition, the project capitalises on the proximity of the Asia–Europe direct broadband link provided by the
SAT3/WASC/SAFE undersea cable, which lands at Mtunzini, north of the zone.

The logistics platform created as part of the Industrial Development Zone therefore enables South African based stakeholders to participate both in order taking and fulfillment aspects of the Virtual Market.

To achieve this, elements of the plan incorporate the establishment of a CyberPort aimed at the order taking function. This project aims at addressing the Virtual Market, which has grown as a multibillion-dollar alternative to the sourcing of goods on a global basis.

A further element of the project is a focus on organic farming with the objective of exporting high value fruits, salads and vegetables as part of the goal of perishables and high value added exports.

The Industrial Development Zone therefore provides the capability both to establish high technology projects in the field of electronics, biotechnology and advanced manufacturing, together with the creation of labour intensive, rural activities. This is as a result of the ability to process/customise and transport manufactured goods and perishables (including produce and fish) on a time critical basis.

As part of the overall programme, a Resource Centre focused on training workers to international standards, including a pilot organic operation is to be created in the zone.
This has the objective of also creating the environment for rural workers to be introduced to the production practices and levels of quality that must be achieved in order to export the perishables and high value added goods to the markets of the developed world.

This will be facilitated by the creation of an area providing Value Added and 3PL Service providers with direct airside access to the air platform created by the King Shaka International Airport. This creates a desirable operational scenario for the movement and processing of goods on a time critical basis.

The project at La Mercy therefore provides an operational environment attractive to South African and MultiNational corporations.

It addresses those issues that motivate the establishment of new enterprises including attracting both local and Foreign Direct Investment.
2.4. Twinned Hub Distribution Concept

A principal element of the La Mercy project is the movement of freight with a focus on scheduled freighter movement. This is in contrast to the operational concept of airports with an emphasis on passengers with their associated belly cargo operations.

Since the 80’s there has been a trend towards the movement of airfreight and in particular express freight by the dedicated freighters instead of belly cargo.

In the United States over 60% of all air cargo is moved by the Integrators (UPS, FedEx, DHL, Airbourne) with their own fleets of freighter aircraft. This trend is rising above 30% on an
intercontinental basis, with the need to meet higher levels of service in moving high value added goods including perishables.

While passenger-driven hubs such as the Johannesburg International Airport move their freight to passenger-motivated locations, freighter operations provide the movement via point-to-point operations to cargo driven airports. These are developed according to their logistical location which is motivated by their catchment areas and “starburst” capability.

The La Mercy Intercontinental air platform with its associated Industrial Development Zone therefore will be operationally twinned with such locations.

These are located within target catchment areas in the major western markets in North America, Europe and Asia. These locations are chosen as a function of their ability to source backhaul freight in order to provide the required levels of aircraft utilisation on the outward and inward flights.

As a result of initial exploratory work in principle commitments have already been received from the Toledo Express Airport in North America and the Liege Airport in this regard.

Both of these locations have integrator hubs at their airports.

As part of the commercial development programme agreements will be put in place
with such twinned freight driven airport locations.

**Dedicated Freighter - Twinned Hub Distribution Concept**
3. PHYSICAL MASTER PLAN

3.1 Site Size and Location

The La Mercy site is located 28 kms north of the Durban City Centre in close proximity to the Indian Ocean.

Initial earthworks were performed at this site in the mid 1970s in order to provide the platform to accommodate a runway and passenger terminal for the replacement of the Durban International Airport. This platform is suitable for the proposed scheme.

The site is connected by road to the city center by means of the N2 (National Highway) and R102 which act as coastal feeders between Durban and Richards Bay. In addition, rail access is provided to the site by the Durban – Richards Bay line with a station at Nyaninga, which adjoins the site.

This enables the creation of a future intermodal (road – rail) yard within the Industrial Development Zone as part of the bonded feeder system between the individual transportation nodes (Durban – Richards Bay – Gauteng).

The noise contours and the site topography however do enable the creation of high quality residential – commercial developments to the east of the site. This is facilitated by the existing ridge between the runway and this location.
The site location therefore can provide an attractive work, home and resort – recreation environment, which is a determinant in the location of new enterprises by the MultiNational Corporations.

A Master Planned environment has therefore been developed which both incorporates the land within the project boundary and some directly adjoining the site.

The overall Master Plan therefore incorporates the following approximate designated areas according to the following designations:

- **Core Industrial Development Zone**: 122
- **Freight Intermodal Yard & Warehousing**: 265
- **CyberPort**: 120
- **Air Platform**: 260
- **Passenger Terminal**: 80
- **Non bonded Commercial Development**: 205
- **Cyber Village / Techno Park**: 2440

Hectares

Adjoining land for associated developments synergistic with the overall project are
expected to result in an overall programme of approximately 3000 hectares.

The objective of the overall programme is to create a secure world class working environment, providing the space to accommodate a limited number of managerial staff. This includes those who would reside in the Cyber Village, which would enable them to work from home, while benefiting from the gigabit broadband capability provided from the CyberPort.

The majority of the staff, who will be employed at the location, have the opportunity of accessing the site by road and by rail at a number of controlled access points.
3.2 Functional Master Plan

The layout of the overall project development is primarily motivated by the operational concept with its associated functions.

Additional considerations include the site configuration, topography, existing road and rail infrastructure, together with environmental issues relating to the proposed location.

The principal functions that are incorporated in the Master Plan therefore are:

- The air platform, which enables the construction of a runway with an initial
length of 3,200 metres, expandable to 4,000 metres.

- **The Master Plan** further provides the potential for a second runway of up to 2,600 metres for general aviation or significantly expanded airside operations.

- **The core IDZ** activity which includes manufacturers and freight focused activities. It is expected that this area will result in the development of a number of ventures.

- **The CyberPort** as an advanced office environment within the IDZ focused on information technology, communications and web-based applications.

- **The Cyber Village** focused on creating a living environment enabling systems programmers, developers focused on cyber applications to work from home as an extension to the office environment.

- **The Passenger Terminal** providing the ability to handle widebody and narrowbody aircraft with arriving / departing international and domestic passengers.

- **Commercial Developments** associated with the creation of a transportation hub for the movement of passengers and freight focused on exports while
also capitalising on the Virtual Market. Particular ventures include hotel, conference and service activities including vehicle refueling – repair activities.

At this stage it is expected that the Dube TradePort will be focused on the IDZ (Industrial Development Zone). This incorporates advanced office, manufacturing and freight-focused activities together with freight handling/transportation, value added logistics and third party logistics activities which require direct airside access.

The land allocated for this venture, which adjoins the passenger airport is dedicated to two principal functions the Core IDZ Activity and the CyberPort.

Core IDZ Activity

The land allocated to the core IDZ activity is planned to accommodate time sensitive manufacturing, value added logistics and air cargo activities to the east of the land area.

This incorporates access to the air platform by means of a dedicated freight taxiway and ramp area together with access to the passenger terminal ramp by means of a tunnel under the runway.

The value of this property to potential “tenants” within the IDZ are a function of:

- Land with the potential of direct airside access to the ramp.
This is an area of approximately 100 hectares and is of the greatest value to value added logistics and transportation operators. (During interviews at the Johannesburg International Airport it was mentioned there was a two-year waiting list for this type of space)

- Land with indirect airside access, but still providing the movement of freight or goods to the ramp in a short period of time by adjoining the airside

- Land focused on less time sensitive manufacturing and warehousing activities located within the IDZ

- Land allocated to Commercial Developments including retail and service activities which are focused on the activities within the IDZ

- Land dedicated to and adjoining the intermodal freight yard with associated warehousing and marshalling activities

- Agricultural land unsuitable for real estate development dedicated to agricultural production including the establishment of a prototype organic farming project

The value of non agricultural land within this Industrial Development Zone commands a greater multiplier than that of other office, industrial or warehousing space outside the zone.
This is due to improved operational efficiencies, which can be achieved by individual operators within this area.
CyberPort – High Tech Office Park

The land allocated to the CyberPort will provide a gigabit broadband capability, telecommunications network to tenants within an office environment. This is a result of the dedicated feeder to be provided with the SAFE international undersea cable connection at Mtunzini.

The plan incorporates the creation of a cluster of buildings focused on cyber applications, including the order taking activities as a result of an e-Commerce focus.

The broadband connectivity that is provided exceeds that available in a normal office environment. In addition, the provision of common use facilities as part of the programme enables the incubation of start up activities.

The value of the office/computer type developments to be located in this 120-hectare area as part of park type environment is both a function of the operational
efficiencies that are to be achieved and the location within an IDZ as part of a logistics gateway and intercontinental transportation hub.
3.3 Multiple Venture Focus

The Master Plan that has evolved further focuses on providing the capability to develop individual business ventures.

This enables the participation of private and/or public sector entities to participate in one or a number of business ventures at La Mercy according to their specific objectives.

The Master Plan therefore provides the basis for the development of a private – public sector model that incorporates both profit driven and strategic or social objectives.
4. **POTENTIAL VENTURES**

The creation of the Dube TradePort as part of a logistics platform enables the creation of numerous ventures with their associated incomes. These include:

- **Business ventures with the primary purpose of generating a return on investment** and consequently are suited for public sector or public/private sector participation.

- **Ventures with a social objective** incorporating SME/MBE or improvement programmes and training/education initiatives. These are either public sector or private/public sector driven where immediate return on investment is not a primary consideration.

- **Strategic ventures**, which are driven by National and Regional Government including Defense, Coast Guard, Disaster Recovery, Offset and Counter trade projects and other nationally directed programmes.

The core activities which are associated with the Dube TradePort as defined in the Operational Concept include:

- **Real estate development** as a means to generate income by means of
  - Land sale/lease back
Project Overview & Feasibility Analysis

- Rental income
- Property management

- **Concession of specific ventures** as part of a Master Planned environment and plan

- Freighter Aircraft Servicing income, which incorporates aircraft to be handled on the ramp located in the Dube TradePort, including: aircraft ramp fees, ramp handling and refueling activities, which could be treated as concessions

- **Service related activities** including waste handling, security, communications

- **Perishables Export Operations** including training, pilot production, transportation, consolidation, storage and handling within a common use facility

- **Human Resource activities** focused on providing training and a “third” party workforce for those new ventures establishing themselves at the Dube TradePort

- **SBE/MBE – Incubator** related activities as potential users of the Dube TradePort

- **Cyber related functions** including the CyberPort as a real estate investment and associated common use systems and spaces including the development of a trade portal.
It is expected that the initial ventures, which will be implemented as part of the real estate function at start up, will include:

- The creation of the initial infrastructure
- General cargo handling / processing / warehousing
- Manufacturing and warehousing focused on time sensitive manufacturing and warehousing
- The CyberPort with its associated cyber applications

Significant service related income is expected to be generated by the end of the initial 5-year development phase of the project as a result of the critical mass which will have been generated by the project.
The Dube TradePort and King Shaka International Airport - Functional Master Plan

Project Overview & Feasibility Analysis
5. AIR FREIGHT MARKET PROJECTIONS

5.1 Air Freight Transportation Alternatives

The Schiphol Airport study analysed the projected freight capacity on the basis of a passenger driven airport utilising belly cargo.

The quantity of freight projected on the basis of an extrapolation of freight volumes according to the replacement of the function performed by the Durban International Airport was estimated at SNC Lavalin, as quoted in Schiphol Report at:

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<tr>
<td>Max Capacity (tons)</td>
<td>45,000</td>
<td>60,500</td>
<td>72,500</td>
<td>116,000</td>
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It should be noted that due to the inability for the airport to provide the required air cargo transportation capability, significant amounts of freight are presently being moved by Road Feeder System (by truck) to Johannesburg from where it is then flown. This road feeder concept results in a one-day delay in the export of time sensitive goods from KwaZulu – Natal.

While no measure of the amount of goods sent by truck to Johannesburg could be found due to the lack of the relevant statistics, other similar types of airports providing limited intercontinental airfreight capability can be used as a rough measure.
Regional Airports such as The New Orleans International Airport, with limited levels of dedicated freighter service have determined that 30 to 50% of the total freight from its catchment area destined as air cargo for intercontinental destinations, is moved to Miami by truck. From there it flies to Europe and South America by air.

This is a major issue concern, as local industry is therefore not provided the same level of service to that provided by major freight transportation hubs.

In a similar manner, the tonnages of airfreight originating in KwaZulu – Natal are trucked to Johannesburg and then flown elsewhere can be considered as significant.
This trend is the result of the unavailability of schedule freighter services from the Durban International Airport, coupled to insignificant intercontinental belly cargo capability.

The KwaZulu-Natal catchment area for time sensitive freight with an intercontinental catchment area is therefore forced to utilise the Johannesburg International Airport. This has been moving its ever increasing volumes of intercontinental aircraft (50% of the overall tonnage) and the use of dedicated freighters.

This scenario has not been replicated in Durban due to the short runway length of 2,440m, which does not provide intercontinental capability.

The erosion of the existing market for time sensitive goods is underlined by the vast increase in movement of goods by air through Johannesburg International Airport versus that moved in Durban (ref ACI-NA).

<table>
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<th>1998</th>
<th>2000</th>
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<tr>
<td>Johannesburg IA</td>
<td>297,351</td>
<td>420,000</td>
</tr>
<tr>
<td>Durban IA</td>
<td>17,519</td>
<td>14,973</td>
</tr>
</tbody>
</table>

It can therefore be assumed that the existing market for air freight from Durban, without the benefits of a world class logistics capability can be expected to be approximately 40,000 tons per annum validating the SNC Lavalin projection.
The Logistics Platform Function

In addition to the tonnages projected for a passenger focused airport as defined by SNC Lavalin, consideration should be given to additional tonnages generated from the creation of the logistics platform. This is a function of the movement of freight by dedicated freighter as part of a twinning function with a focus on the export of time critical freight from the surrounding areas.

It can be expected that this originating air freight will be supplemented by air freight generated as part of the sea - air function.

This function occurs at an intercontinental freight gateway where freight is transported part of the way to their final destination by sea, and then change modes before its final delivery.

The change of mode is often accompanied by a destuffing of the sea containers, the processing of the goods and reloading them into ULDs (Unit Load Devices) for final shipment. This activity is found in significant quantity at such locations as Vancouver and Dubai. These are major continental sea gateways such as Durban which is the longest container port in sub Saharan Africa with an annual movement of over 1.2 million TEUs per annum.

The estimate of projected tonnages resulting from the new logistics capability for freight originating in within the catchment area, are therefore determined as a function of
estimated freighter movements required to address the market of time critical freight.
5.2 Projected Outbound Freight Volumes

In the calculation of freight volumes to and from the logistics platform at La Mercy, consideration should therefore be given to:

- The air cargo which would be generated by providing the same capability to that presently existing at the Durban International Airport, as a passenger focused operation with no sizeable direct intercontinental air capability

- The air cargo which would result from the creation of the logistics platform including:
Project Overview & Feasibility Analysis

- Scheduled time critical air freighter driven cargo
- Multimodal sea – air generated cargo
- Transshipment air to air express cargo (time critical freight).

In evaluating outbound freight, potential volumes were calculated on the basis of scheduled freight movements required to serve the market.

In the first five years of operation these incorporate three round trips of two-widebody freighter per week, one to North America and the other to Europe.

This assumes a Boeing 767 – 400F freighter being constrained by volume with a payload of 100 tons (approximately 80%) and a load factor commencing at 80%. This results in an initial load factor of approximately two thirds, which then rises to approximately 75% by the fifth year of operation.

These initial five years are designated the developmental phase.

During the next five years of operation, designated as the accelerated growth phase, it is expected that cargo freighter traffic will increase to:

- Five round trips per week to North America
Five round trips per week to Europe

Three round trips per week to Asia

This results in annual cargo volumes of approximately 110,000 tons in the sixth years rising to approximately 170,000 tons by the tenth year of operation.

According to the increased number of dedicated freighters operations to the three continents in years 11 to 15, the annual cargo tonnage generated by this function is expected to reach approximately 200,000 tons per annum.

These freighter movements would range from 2.2% to 7.4% of the total passenger and freighter movements at the airport, therefore not impacting passenger aircraft activities.
Dedicated Freighter Operating Assumptions

START-UP PHASE (years 1 to 5)
Intercontinental Traffic:
3 Round Trips/ Week to N. America
3 Round Trips/ Week to Europe
6 Round Trips/ Week. (12 movements/week)

Regional Feeder:
1 per day (10 movements/week)
(tonnage not included in calculations)

Assuming a payload of 100 tons per one-way trip (120 max payload) for a Boeing 747-Freighter
(i.e., 200 tons per round trip)

Weekly Capacity: 1,200 tons per week
Total: 22 movements per week
Annual Capacity: 60,000 tons per annum
500 Domestic

SECOND PHASE (years 6 to 10)
5 Round Trips/Week to N. America
5 Round Trips/Week to Europe
3 Round Trips/Week to Asia
13 Round Trips/Week (26 movements/week)
2 Regional Feeders Per Day (not included in tonnage calculation)
(20 movements/week)

Weekly Capacity: 2600 tons per week
Total: 46 movements per week
Annual Capacity: 130,000 tons per annum
1000 Domestic
2300 movements per annum
1300 International

THIRD PHASE (years 11 to 15)
8 Round Trips/Week to N. America
8 Round Trips/Week to Europe
3 Round Trips/Week to Asia
21 Round Trips/Week (42 movements/week)
3 Regional Feeders Per Day
(30 movements/week)

Weekly Capacity: 4200 tons per week
Total: 72 movements per week
Annual Capacity: 210,000 tons per annum
1500 Domestic
3600 movements per annum
2100 International

5.2.1 Perishables Market Estimate

As a result of an analysis performed by the KwaZulu – Natal Department of Agriculture and Environmental affairs, the figures of perishables (agricultural and other related) product currently produced for export by air as communicated to Cabinet on the 10th of April 2002 was estimated at:

- Cut flowers: 3 tons/week
- Vegetables: 200 tons/week
- Fruit: 200 tons/week

403 tons/week
This present market of perishables for export is approximately two thirds of the projected dedicated freighter movement projected in the first year of operation (2006).

The abovementioned figure does not include the value of fish exports nor the estimate of the freight which would be generated as a result of the new logistics capability that is to be provided with its associated export drive, which is to including organic produce.

Organic farming of perishables product has been identified as a major opportunity for developing countries, which have the logistics capability to move it to the major consumer markets.

It has further been determined by other initiatives in Africa focused on this activity that a 60 hectare plot of flat agricultural land would produce 52 tons/week for export.

The organic production and training site located within the IDZ which acts as a catalyst for this initiative has an overall size of 50 hectares.

It therefore can be expected that a 120 – 150 hectares of flat land dedicated to organic production for export has the potential to produce 100 tons per week. This is equivalent to the capacity of one widebody freighter.

The dedication of 300 hectares of land to organic production for export together with
the existing production as defined by the KwaZulu – Natal Development of Agriculture would therefore provide sufficient capability to fill the scheduled freighter service in the developmental phase of the project.

It is therefore expected that solely based on the potential for the export of perishables, the outbound tonnages will exceed the base case projections.

This does not include any manufactured product generated within the catchment area.
### Organic Farming Production Model

**Compost**
- 6.4 tons/ha/year = 384 tons/60 ha plot
- 1 Goat = 1 ton finished compost
- 384 Goats required

**Mineral Additives**
- 208 kg/ha bone meal = 12.48 tons/60 ha plot
- 4 kg/ha K source = 240 kg/60 ha circle

**Capital Equipment & Facilities**
- 350 Cubic meters/hour
- 9 Hour cycles, 365 days a year
- 1,149,750 Cubic meters a year
- 226 kw/generator
- 300 Liters of fuel / 9 Hour cycle
- $36 USD / irrigation cycle

**Personnel**
- 1 Manager
- 2 Engineers
- 2 Technicians
- 2 Drivers
- 2 Bookkeepers

**Product**
- 20 tons projected yield/ha per planting
- 2,700 tons produce per year
- 52 tons/week or 135 twenty ton shipments/year

### 5.3 Backhaul Potential

The ability of the logistics platform at La Mercy to source product for export needs to be complemented by the ability to generate backhaul for scheduled freighter operations.

As a result of the analysis performed in July 2001 by the Department of Transport and Logistics Management at RAU, it was determined that South Africa was a net importer of goods by air.

The total value of air freighter imports in the year 2000 was quoted at R56.3 billion versus exports for the same year of R33.9 billion.
There is therefore an imbalance on imports to exports of R22.4 billion (1.66 to 1).

It is therefore apparent that a primary function of La Mercy as a logistics platform is to boost exports in order to address the present imbalance of imported goods. This would improve the load factors in moving goods to and from South Africa.

An evaluation of the principle categories of the most frequent imports for the International Airports in Johannesburg and Durban according to the Department of Customs and Excise over a 5-year period includes the following product groups.

<table>
<thead>
<tr>
<th>Durban IA</th>
<th>Johannesburg IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fabrics &amp; Materials</td>
<td>• Recording Media / cards</td>
</tr>
<tr>
<td>• Chemicals</td>
<td>• Printed Books</td>
</tr>
<tr>
<td>• Medical/Pharmaceutical</td>
<td>• Medical /Pharmaceutical</td>
</tr>
<tr>
<td>al</td>
<td>• Data Processing Parts / Equipment</td>
</tr>
<tr>
<td>• Electrical Components</td>
<td>• Medical Devices</td>
</tr>
<tr>
<td>• Electronics</td>
<td>• Aerospace Components &amp; Parts</td>
</tr>
<tr>
<td>Components</td>
<td></td>
</tr>
<tr>
<td>• Medical Devices</td>
<td></td>
</tr>
<tr>
<td>• OEM Equipment / Auto</td>
<td></td>
</tr>
</tbody>
</table>

It was determined as part of the RAU study that these goods moved to and from Johannesburg International Airport by:

- Dedicated Freighters – 17 flights / week 1,635 tons / week
- Belly Freight (Passenger Service) – 115 flights / week 1,725 tons / week
It is apparent that 50% of all air cargo tonnage to and from Johannesburg estimated at 3,360 tons / week is moved by dedicated freighter.

Freight movement is generated on the basis of FOPs (Freight Operator Permits) issued by the Department of Transport including service of flights and individual flights to / from South Africa.

It can therefore be expected that the outbound flow of goods from the KZN catchment area, together with the net inbound movement of goods by air into South Africa will result in the redirection of certain freighter operations to the La Mercy Platform. This will enable them to fly their aircraft with improved inbound and outbound load factors.

In addition, low value added airfreight will be directed from the La Mercy logistics platform to Gauteng and other areas as part of a RFS (Road Feeder System). This will reverse the movement of truck traffic carrying traditional airfreight (low value added product) between the two transportation hubs.

It is therefore apparent that both inbound and outbound freight volumes can be adequately generated by the creation of the new logistics platform. This should occur with significantly greater tonnages than those defined in the base case scenario for dedicated freighter operations.
An optimistic scenario for the movement of airfreight through the La Mercy logistics platform could be twice that of the projected dedicated freighter throughputs.
6. SITE AND FACILITY DEVELOPMENT REQUIREMENTS

6.1 Dube TradePort Development Overview

The development of the site, according to its designated uses, is to be undertaken by means of a phased plan in order to reduce initial capital expenditures, while achieving the required critical mass for start up operations.

The Dube TradePort venture can be further defined according to activities which are:

- **Airside dependent** i.e. need an operational air platform.

- **Non-airside dependent** which do not need an operational runway and include conventional manufacturing and warehousing

- **Cyber driven** requiring the connection to the Gigabit backbone and the dedicated SAFE undersea cable connection.

The project can therefore be developed on the basis of:

- **Projects which are not airside dependent** including the IDZ, CyberPort areas to be implemented by the end of the first quarter of 2004
Projects which are dependent on an operational airside to be implemented by the end of the first quarter of 2005.

The site area outside the IDZ boundary includes projects whose development is primarily a function of the operation of the King Shaka International Airport, which is to be implemented by mid 2006. They would not be considered as directly related Dube TradePort activities, with the exception of the synergies which can be developed with the adjoining Cyber Village and Techno Park.
6.2 Facility Start Up and Absorption Rates

In order to achieve the required critical mass for the start up of the project, it is proposed that the following facilities be provided for the start up of the Dube TradePort:

- The basic infrastructure including site development, security, the provision of utilities and construction of the initial ramp with airside access

- An air cargo warehouse able to accommodate SAA’s needs of approximately 4,000 sqm² – direct airside access
➢ A perishables handling facility of 6,000 sqm\(^2\) – *indirect airside access*

➢ Manufacturing, warehousing and support space of 40,000 sqm\(^2\) – *50% indirect airside access / 50% no airside access*

➢ A CyberPort development of 20,000 sqm\(^2\) – *high speed broadband capability*

It is expected that these will be developed and let prior to the commencement of the project and that subsequent the to start up additional facility needs will be generated according to market driven needs.

The absorption rate achieved at the Dube TradePort is a function of a proactive effort by the promoting entities to create an efficient operational scenario and attract new business.

The preferred absorption figures indicate the levels of growth with associated job creation figures which can be achieved at successful development of this kind, such as the Alliance Logistics Platform in Texas. They are also indicative of the levels of growth, which can be achieved from the development of successful SEZs (Special Economic Zones) such as those established in China.

However, a “low end” base case scenario has been defined in order to provide a measure of the potential success, which can be achieved by the Dube TradePort venture.
The base scenario facility (lettable building) absorption rate, as cumulative total, is estimated at:

<table>
<thead>
<tr>
<th>Year</th>
<th>m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 0</td>
<td>70,000</td>
</tr>
<tr>
<td>by Year 5</td>
<td>125,000</td>
</tr>
<tr>
<td>by Year 10</td>
<td>250,000</td>
</tr>
<tr>
<td>by Year 15</td>
<td>350,000</td>
</tr>
</tbody>
</table>

To this figure should be added the sale and/or lease of undeveloped land for use by tenants to build their own custom facilities. This estimated at an additional 20% of the land which has been used for the development of buildings.

**Overall Development Potential**

An initial estimate of the overall capital cost, of the programme at La Mercy including the Dube TradePort according to the preferred development scenario, can be approximately quantified in 2001 prices as:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Shaka International Airport including air platform</td>
<td>Rand 980 million</td>
</tr>
<tr>
<td>Dube TradePort – Start Up</td>
<td>Rand 270 million</td>
</tr>
<tr>
<td><strong>Total Start Up Value (at 2001 prices)</strong></td>
<td>Rand 1,250 million</td>
</tr>
<tr>
<td>Development Phase I (Year 1 to 5)</td>
<td>Rand 960 million</td>
</tr>
<tr>
<td>Accelerated Growth Phase II (Years 6 to 10)</td>
<td>Rand 4,025 million</td>
</tr>
<tr>
<td>Phase III (Years 11 to 15)</td>
<td>Rand 788 million</td>
</tr>
</tbody>
</table>
This estimated value of the overall programme over a 15-year period, on the basis of an average escalation of 5% per annum, can therefore be estimated at Rand 10 billion. This would vary according to phasing considerations, the mix of facilities and the ventures to be established.

To this should be added the cost of the concessions associated with the core activities resulting of a programme at La Mercy of well over 1 billion Rand.

6.3 Dube TradePort Population
The estimate of direct jobs created with the Dube TradePort according to the preferred scenario is estimated at 20,000 new jobs by the 15th year of operation.

This does not include direct jobs created by the passenger airport function. The number of indirect jobs, which are created outside the confines of the Industrial Development Zone, but are a function of its existence. In the fifteenth year of operation the preferred scenario projects the indirect jobs created to be 80,000.

Consequently, the number of direct and indirect jobs created as a result of a successful Dube TradePort operation are estimated at 100,000 over a 15-year life according to the preferred development scenario.

This should act as a significant catalyst for economic KwaZulu–Natal and the
surrounding regions.
7. INITIAL COST – INCOME POTENTIAL SCENARIO

7.1 Overview

The projected costs for the development of the Dube TradePort as a business venture are a function of:

- The initial start up requirements
- The phasing of the project
- The land cost
- The cost of infrastructure (including design/engineering)
- The cost of facilities (including design/engineering)
- The soft costs (including administration, promotion, fees etc.)
- Associated costs for the provision of the intercontinental air platform

The contribution of the Dube TradePort for use of the intercontinental air platform needs to be finalized as part of an overarching plan. This needs to consider strategic and economic issues and the business plan for the implementation of the King Shaka International Airport as a separate venture.

In addition, the initial start-up costs and subsequent capital expenditures will be a
function of providing the initial critical mass and responding market driven needs.

The objective therefore is to reduce the risk associated with speculative investment in buildings and developed land, while providing an efficient operational environment as part of a phased programme.
7.2 Phased Development Scenario

The most conservative scenario as defined for the Dube TradePort requires the lowest amount of capital expenditure in Phases I, II and III which follow the “start up” investment.

A conservative initial projection of the development cost for these individual phases is calculated on the basis of providing the additional space at the end of each individual phase. However, it is realistically expected that this will occur as a progressive development on an annual basis.

Construction escalation costs are calculated at a rate of 8% per annum for the start up phase.
from the budget figures as determined as of 1st of September 2001. Subsequent escalation is estimated at 5% per annum.

Approximate capital costs can therefore be estimated on the basis of these assumptions

**Worst Case Development Scenario**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Gross Building Area</th>
<th>Budget Cost Rand (Sept 2001)</th>
<th>Escalation Rate</th>
<th>Completed by</th>
<th>Escalated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Up Phase</td>
<td>70,000m²</td>
<td>270 million</td>
<td>8%</td>
<td>End April 2005 (3yrs)</td>
<td>340 million</td>
</tr>
<tr>
<td>Development Phase - (Year 5)</td>
<td>55,000 m²</td>
<td>220 million</td>
<td>5%</td>
<td>End April 2010 (8yrs)</td>
<td>354 million</td>
</tr>
<tr>
<td>Accelerated Growth Phase -(Year 10)</td>
<td>125,000m²</td>
<td>500 million</td>
<td>5%</td>
<td>End April 2015 (13yrs)</td>
<td>1,026 million</td>
</tr>
<tr>
<td>Phase III - (Year 15)</td>
<td>100,000m²</td>
<td>400 million</td>
<td>5%</td>
<td>End April 2020 (18yrs)</td>
<td>1,048 million</td>
</tr>
<tr>
<td>Total (Rand)</td>
<td></td>
<td>1,390 million</td>
<td></td>
<td></td>
<td>2,768 million</td>
</tr>
</tbody>
</table>

**Note:** (Cost of subsequent phases at an average cost of 4000 Rand/m²)
- Escalation of building costs at 8% for first 3 years, at 5% for subsequent years
- Initial Budget cost estimate, September 2001

The abovementioned capital requirements are estimated according to the following assumptions:

- The lowest absorption figures achieved at the Dube TradePort
The implementation of all of the projected additional facility needs in the last year of the individual 5-year phases, which does not capitalise on rentals received as part of an incremental programme.

The sale/lease of undeveloped land with a minimum of land improvement.

Project operating capital needs are not included.

On the basis of the abovementioned “worst case scenario” the overall project capital cost would be a figure of Rand 2,767 million over the 15-year life of the project.
7.3 Projected Earnings as a Function of Capital Cost

The abovementioned estimate of capital costs, can also be used to provide an initial evaluation of potential earnings on the basis of the following assumptions:

- An average occupancy rate of 85% over the duration of the investment
- A return on investment (excluding interest taxes, and depreciation costs) of 17.5% of the capital value (overall price) during the first and last, phases I and III of the project
- A return on investment (excluding interest taxes and depreciation costs) of 20% of the capital value over the second phase of the project

The consequent earnings potential according to this scenario during the individual phases of the project, from building/facility transaction is:

<table>
<thead>
<tr>
<th></th>
<th>Year 0</th>
<th>Year 1–5</th>
<th>Year 6–10</th>
<th>Year 11–15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start–Up</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Phase I</td>
<td>–</td>
<td>342m</td>
<td>342m</td>
<td>342m</td>
<td>1026m</td>
</tr>
<tr>
<td>Phase II</td>
<td>–</td>
<td>–</td>
<td>356m</td>
<td>356m</td>
<td>712m</td>
</tr>
<tr>
<td>Phase III</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1180m</td>
<td>1180m</td>
</tr>
</tbody>
</table>
To this should be added, the additional earnings generated from the land sales/lease transactions which are based on:

- Land lease/sale transactions estimated at 20% of the land used for building facility development
- A return on investment (excluding interest taxes and depreciation) of 8% of the capital value (overall price)
- An assumption for this purpose of simplicity of all land transactions as lease transactions, not sales
- A land cost at 15% of overall land, site and building costs.

The consequent income potential from land transactions during the individual phases of the project, according to the most conservative scenario are:

<table>
<thead>
<tr>
<th></th>
<th>Year 0</th>
<th>Year 1–5</th>
<th>Year 6–10</th>
<th>Year 11–15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Up</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Phase I</td>
<td>–</td>
<td>4.7m</td>
<td>4.7m</td>
<td>4.7m</td>
<td>14.1m</td>
</tr>
<tr>
<td>Phase II</td>
<td>–</td>
<td>–</td>
<td>4.9m</td>
<td>4.9m</td>
<td>9.8m</td>
</tr>
<tr>
<td>Phase III</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>14.1m</td>
<td>14.1m</td>
</tr>
</tbody>
</table>
Therefore, an initial estimate of the total earnings potential that could be generated according to this “worst case scenario” is Rand 2956 million.
8. PROJECTED INCOME

8.1 Background

The projected income for Dube TradePort is dependent on creating the operational scenario which will attract both national and international participants as tenants and/or landlords.

Alternative absorption scenarios have therefore been developed incorporating low end and preferred projections.

The preferred scenario is based on what has been achievable at other successful developments of this type. An example of which is the Alliance multimodal logistics platform in Texas. This is designated as the “best case” scenario.

The base case is designated as the “low end scenario”, the most conservative absorption projection over a 15 year period of time.

The associated base case demand projections are divided into individual phases each of a five year duration which incorporate:

- The start up phase or year 0
- Phase I – the development phase with a 16% p.a. absorption
- Phase II – the accelerated growth phase with a 20% p.a. absorption
Phase III – which has a 8% p.a. building absorption.

The income derived according to the scenarios is derived from:

- **The real estate function** including:
  - The lease of developed property to tenants
  - The sale/lease of land for development by the user
  - Property management/service revenues

- **Other ventures** which are dependent on the creation of the Dube TradePort including concessions, freighter support functions and cyber related activities, as spin offs from the CyberPort project.

The potential income from the Dube TradePort is dependent the location of the land to be developed and its consequent operational value. It is expected that this value will increase after the developmental phase, with an improved return in the second (accelerated growth) phase of the project.

In addition, the mix of building types and land to be developed, during the individual phases, will create differing revenue scenarios.

On the basis of the land utilisation allocation with its associated potential revenues, a
A representative development mix is designated as:

### Representative Development Mix

<table>
<thead>
<tr>
<th>Land Category</th>
<th>Total Land Available</th>
<th>%</th>
<th>Rand/m²/Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land with direct airside access</td>
<td>100 ha</td>
<td>25%</td>
<td>35 – 40</td>
</tr>
<tr>
<td>Land with indirect airside access</td>
<td>100 ha</td>
<td>25%</td>
<td>30 – 35</td>
</tr>
<tr>
<td>Land for conventional manufacturing/warehousing</td>
<td>140 ha</td>
<td>35%</td>
<td>25 – 30</td>
</tr>
<tr>
<td>CyberPort – advanced office environment</td>
<td>40 ha</td>
<td>10%</td>
<td>75 – 80</td>
</tr>
<tr>
<td>Commercial development retail and service</td>
<td>20 ha</td>
<td>5%</td>
<td>180 – 220</td>
</tr>
<tr>
<td>Total income generating area</td>
<td>400 ha</td>
<td>100%</td>
<td>R41,50 to R48,25 aggregate</td>
</tr>
</tbody>
</table>

In addition to the development and lease of buildings, the base case scenario incorporates the sale and/or lease of land.

This is projected as an additional 20% of the land area required for the projected buildings.

From an evaluation of other developments, it can be expected that land prices for similar types of real estate developments can range between 10% to 20% of the overall cost (land + site developments + building costs).

This range is due to land values varying according to their suitability for different uses.
and the adjacency of utilities, services and transportation.

Therefore, land with direct airside access will have a greater relative value (approximately 20%) than that suitable for conventional office space (approximately 10%).

### Typical Land and Site/Building Costs and Rental Incomes

<table>
<thead>
<tr>
<th>DESIGNATED USE</th>
<th>EXISTING COSTS AND INCOMES</th>
<th>Rental Income (R/SQM/Month)</th>
<th>Comment – Proposed Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land Price (R/SQM)</td>
<td>Cost (R/SQM)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Site</td>
<td>Building</td>
<td></td>
</tr>
<tr>
<td>Office High Tech</td>
<td>350</td>
<td>300</td>
<td>2,500</td>
</tr>
<tr>
<td>Class A</td>
<td>350</td>
<td>250</td>
<td>2,000</td>
</tr>
<tr>
<td>Class B</td>
<td>350</td>
<td>250</td>
<td>1,800</td>
</tr>
<tr>
<td>Warehouse (Industrial)</td>
<td>200</td>
<td>180</td>
<td>1,000</td>
</tr>
<tr>
<td>Manufacturing (Industrial)</td>
<td>220</td>
<td>200</td>
<td>1,100</td>
</tr>
<tr>
<td>Logistics/Air Cargo</td>
<td>300</td>
<td>200</td>
<td>1,000</td>
</tr>
<tr>
<td>Perishables Facility</td>
<td>300</td>
<td>200</td>
<td>1,200</td>
</tr>
<tr>
<td>Retail / Commercial</td>
<td>300</td>
<td>300</td>
<td>2,000</td>
</tr>
<tr>
<td>Raw Agricultural Land</td>
<td>80</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Does not include soft costs, design and project finance.
8.2 Income Projections

In addition to the income generated from building and site development and that generated from the land alone, as part of the real estate function additional income is generated by the Dube TradePort SPV.

This includes:

- Service/management income generated by providing services to the tenants and users of the Dube TradePort

- Capitalising on associated ventures dependent on the creation of the Dube TradePort such as the Cyber Village and intermodal yard.

It is expected that the service/management income could represent an additional 2% of the total real estate income in the first phase of the project. This is projected to increase to 5% in the second and third phases of the project.

In contrast associated income is derived from concessions granted to create projects within the confines of the La Mercy Master Planned site, which are synergistic with the Dube TradePort operation. These include:

- The creation of a Cyber Village which is dependent on the CyberPort.

It is expected that this will progress on a phased basis, and while no comprehensive analysis has been
performed, it is assumed that three units will be developed during each individual phase, each with a value of 25 million Rand.

Should the DTP – SPV not elect to participate, directly in this and other associated ventures, then its earnings from the concession would be limited to a 5% annual return on the capital cost of the project.

Another associated venture includes the creation of an intermodal yard/freight focused development on the west side of the Dube TradePort venture.

This venture is estimated to have an invested value of Rand 100 million in the 6th year of the project with another 100 million investment in the 11th year.

The income derived from these concessions provides another venue to generate income for the Dube TradePort SPV.
9. PROJECTED EXPENDITURE

9.1 Background

The projected expenditures for the development of the Dube TradePort is area function of providing an initial critical mass of activities at the start of the project, together with an intercontinental freighter air capability.

This involves the construction of an initial infrastructure and building types required to accommodate the initial market needs.

It is projected that the expenditures required to meet this initial need are an amount of Rand 340 million. The majority of this amount will be expended in the twelve to eighteen months preceding the start-up and income generating phase of the project (Phase I), which commences at the beginning of the year 2005.

The principle elements of this initial estimate are:

- Basic infrastructure including land development apron, security and utilities along utility corridor
- Warehouse/manufacturing and air cargo/logistics buildings and site development
- The CyberPort buildings and site development
Soft costs for project promotion prior to the revenue-producing Year 1.

The expenditures to be incurred during the subsequent years are on a phased basis in order to meet market needs, with a minimum of speculative investment.

An estimate of the annual expenditures to meet the estimated building and site needs has therefore been determined according to a “low end” base case scenario. This includes building site and soft costs (including project finance) for the design and construction of the building within a 12 month cycle.

The land for lease as defined in the revenue projections does not include any site work. In addition, the level of infrastructure investment subsequent to start up is to be budgeted as 15% of the cumulative capital cost. This amount will be expended at the end of each of the individual phases (I, II, III).

It is projected that the market needs will be according to a particular mix of buildings types and land that is to be developed during the individual phases of the project. This mix determines the aggregate rate of cost according to the annual cost projections.
### Aggregate Site and Building Costs (unescalated)

<table>
<thead>
<tr>
<th>Overall Mix</th>
<th>Usage</th>
<th>Building</th>
<th>Site</th>
<th>Building + Site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cost (Rand/m²)</td>
<td>Usage-Adjusted Cost (Rand/m²)</td>
<td>Cost (Rand/m²)</td>
</tr>
<tr>
<td>Buildings with Direct Airside Access</td>
<td>25%</td>
<td>2,000</td>
<td>200</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>10% office 90% warehousing</td>
<td>1,050</td>
<td>945</td>
<td></td>
</tr>
<tr>
<td>Buildings with Indirect Airside Access</td>
<td>25%</td>
<td>2,000</td>
<td>300</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>15% office 85% warehousing</td>
<td>1,050</td>
<td>893</td>
<td></td>
</tr>
<tr>
<td>Land for Conventional Manufacturing – Warehousing</td>
<td>35%</td>
<td>2,000</td>
<td>400</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>20% office 80% warehousing</td>
<td>1,050</td>
<td>840</td>
<td></td>
</tr>
<tr>
<td>Cyber Port – Advanced Office</td>
<td>10%</td>
<td>2,500</td>
<td>2,500</td>
<td>750</td>
</tr>
<tr>
<td></td>
<td>100% advanced office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Development Retail and Service</td>
<td>5%</td>
<td>2,000</td>
<td>2,000</td>
<td>750</td>
</tr>
<tr>
<td></td>
<td>100% commercial office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggregate bldg and site rate (unescalated)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total rate incl. 20% soft costs (Rand/m²)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Notes**

- Does not include land development costs required for successive phases after start up.
- Adjusted for the buildings footprint being 40% of overall land (site) need (i.e. a buildingsite ratio of 2.5).
- Soft costs include design/engineering/legal/project finance (excluding project promotion).
- Site rate is a function of a percentage of the usage mix i.e. office carries an upgraded site cost for the total building.
9.2 Air Platform

An essential element of the Dube TradePort is to provide its users access from within a bonded environment to an intercontinental air platform.

It is proposed that this capability be shared with the King Shaka International Airport as an international passenger airport able to handle 3.2 million passengers per annum at the end of 2006.

The cost and earnings profiles for a passenger airport and a freight driven operation are different as a result of:

- The absence of passengers at a freight driven airport generating incomes from passenger service charges and concessions
- The relatively small amounts of movements that are required at a freight driven airport, for significant amounts of air freight versus the large amount of movements that take place at a passenger focused airport.

The exceptions to this are major express hub operations which involve a significant amount of movements of aircraft both before and after the sorting cycle. At this stage it is not expected that this will happen at La Mercy.

The Schiphol based traffic based scenarios for passenger and aircraft movement and the
calculations of dedicated air freighter tonnages were used as a means to analyse this characteristic. On the basis of this calculation freighter aircraft movements are expected to range between 2.2% to 7.4% of overall movements.

Consequently, if landing fees were used as a basis of the cost for the use of the air platform by the Dube TradePort, the majority of the cost for the development of the air platform should be borne by the passenger airport.

An evaluation of the potential cost to provide an intercontinental air capability, with a freight only focus is approximately 50% of the total capital cost at R 600 to 700 million of a passenger focused airport.

Consequently, another alternative costing for the provision of the air platform capability would be a percentage of rental income derived by the Dube TradePort SPV being considered as a cost of access.

This motivates the King Shaka International Airport as a business unit to promote the success of the Dube TradePort venture.
Dube TradePort - King Shaka International Airport Aircraft Movements

<table>
<thead>
<tr>
<th>AIRCRAFT MOVEMENTS / YEAR</th>
<th>2006 onwards</th>
<th>2010 onwards</th>
<th>2015 onwards</th>
<th>2020 onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PASSENGER AIRPORT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiphol Traffic (Base)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercontinental</td>
<td>341.4</td>
<td>475.8</td>
<td>554.4</td>
<td>690.8</td>
</tr>
<tr>
<td>Regional International</td>
<td>1,404.3</td>
<td>1,525.8</td>
<td>1,732.2</td>
<td>2,158.6</td>
</tr>
<tr>
<td>Domestic</td>
<td>46,048.0</td>
<td>51,464</td>
<td>59,797.9</td>
<td>74,519.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>47,793.7</td>
<td>53,465.8</td>
<td>62,084.4</td>
<td>77,368.8</td>
</tr>
<tr>
<td><strong>CARGO - IDZ OPERATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercontinental</td>
<td>600</td>
<td>1,300</td>
<td>2,100</td>
<td></td>
</tr>
<tr>
<td>Regional Domestic</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,100</td>
<td>2,300</td>
<td>3,600</td>
<td></td>
</tr>
<tr>
<td>Percentage of Total</td>
<td>2.2%</td>
<td>4.2%</td>
<td>5.4%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

9.3 Cost of Land

From the evaluation of the long term land needs for the Dube TradePort SPV it was determined that land needs would be approximately 450 hectares. Of this amount 360 hectares would be dedicated to the core activities and another 80 hectares of the CyberPort.

However, according to the base case scenario only one third of the 360 hectares would be required by the end of the third phase (15 years). While the preferred “best case
scenario" would result in the same absorption by the end of the first phase (5 years).

It is therefore proposed, that approximately 66% (300 hectares) of the total land need of 440 to 450 hectares acquired by the Dube TradePort at the commencement of the project and the remaining one third to be acquired at the second phase.

Therefore, with an assumed land value of Rand 30 million, two thirds of the cost would be incurred as part of the start-up cost (year 0) while the remaining R10 million would be acquired at an escalated cost of R15 million on the tenth year.

<table>
<thead>
<tr>
<th>Passenger/Freight Driven Airport Cost Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Mercy Passenger Airport</td>
</tr>
<tr>
<td>Schiphol Group Cost Estimate Breakdown</td>
</tr>
<tr>
<td>Airports Components Required for Freight-only Airport Cost Estimate Breakdown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Rand (million)</th>
<th>Escalated Rand (million)</th>
<th>% of the Passenger Airport Components</th>
<th>Rand (million)</th>
<th>Escalated Rand (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landside Civil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Runway, taxiway, passenger aprons</td>
<td>223</td>
<td>302</td>
<td>95%</td>
<td>212</td>
<td>287</td>
</tr>
<tr>
<td>General Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater, sewerage, roads, refuelling, parking, electrical main supply</td>
<td>277</td>
<td>375</td>
<td>60%</td>
<td>166</td>
<td>225</td>
</tr>
<tr>
<td>Lighting &amp; Navaids*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airstside Lighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navaids (excl. ILS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger Terminal*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger Terminal Bldg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ancillary Buildings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations &amp; control twr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop &amp; flight kitchens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>990</td>
<td>1,368</td>
<td>54%</td>
<td>540</td>
<td>736</td>
</tr>
</tbody>
</table>

Notes
- Inputed items (*) escalated at 10% p.a. due to Rand devaluation
- Other items escalated at 8%
- Original budget estimate as of September 2001
9.4 Operating and Maintenance Costs

In addition to the estimate of capital costs for land, infrastructure and buildings consideration must be given to the recurring costs which occur to maintain the common infrastructure which exists between the individual properties. This is in addition to the need to provide the required common services.

To this must be added the costs for the promotion of the project as a marketing effort which must continue after the start-up phase of the project. This approximates to a figure of 10% of the gross real estate lease income.

A figure of 2% of the cumulative capital invested in site and buildings following the start-up phase, is provided as an allowance for this activity.

On the basis of the abovementioned criteria, an estimate of capital cost in addition to operating, management and promotion expenses has been determined.
10. SOURCES OF CAPITAL – FINANCE

10.1 Background

The Dube TradePort forms part of an overall programme focused on the creation of a Logistics Gateway in KwaZulu – Natal as a means of economic development and job creation. This has the objective of facilitating the participating local and Multi National Corporations to compete as part of the Global Supply Chain.

To achieve this, an overarching business strategy has been developed, which capitalizes on the synergies which can be achieved between individual ventures and projects.

Two principal elements of this strategy include:

- The creation of an intercontinental air platform, including the creation of the King Shaka International Airport
- The creation of the Dube TradePort as a private/public sector venture, which capitalises on the intercontinental air platform, its IDZ status and it being part of an integrated logistics system.

By this approach, economic and financial benefits can be achieved which would not be possible if individual projects and/or ventures were considered separately.
In order to achieve this goal, an initial not-for-profit SPV (Special Purpose Vehicle) would be created with the objective of meeting both the short term and long term goals, while providing the mechanism to involve the private sector in individual ventures or projects. The vehicle further provides the means for it to participate by means of direct, indirect and social investments.

The participants in this KZN – SPV and holding entity would incorporate: Ithala, KZN Province, the Durban Metropolitan Unicity and other entities which are not driven solely by profit as an objective.

This initial equity capital and strategic investment entity has the mission of implementing the Overall Strategy and
Master Plan, which has been defined while meeting business and social goals.

One of the goals of the KZN-SPV and holding entity is the creation of the Dube TradePort at La Mercy, as part of an integrated programme. This is to be achieved as a private–public sector venture which involves the private sector in the financing and operation of a stand alone venture.

The KZN-SPV would further act as the catalyst for the creation of other ventures and/or business units on a private/public sector or private sector only basis.

By this means, government is able to leverage its resources in terms of capital and personnel, while taking advantage of the

**Overall Programme Business Strategy**

- Capitalise on the creation of an intercontinental air platform to create an IDZ focused on time sensitive processing, manufacturing and value added logistics
- Maximise the use of the capital invested in the air platform for both freight and passenger operations
- Capitalise on the international SAFE undersea cable at Mtunzimi
- Create a Special Purpose Vehicle to determine the strategy, provide the seed capital and implement the plan with a focus on economic development, as a not-for-profit entity
- Implement the plan by creating separate public–private sector, and private sector ventures as individual elements of an integrated Master Plan
- Commence the Dube TradePort Development as a private/public sector venture focused on the Industrial Development Zone, CyberPort, and value added logistics – air cargo functions
- Utilise the common air platform to create the King Shaka International Airport
- Utilise/redevelop the land at the South Industrial Basin as part of the KZN Logistics Gateway Concept
- Incorporate incubator concepts and common use facilities to promote empowerment and SME/MBE participation
private sector resources available to achieve this.

10.2 Commercial Development Model

The commercial model for the Dube TradePort is based on the creation of a for-profit venture, focused on a specific portion of the site at La Mercy.

This venture would be focused on the creation of the TradePort, while capitalising on the advantages of the location including its status as an IDZ, (Industrial Development Zone). The principal activities to be used as direct sources of income include:

- Management / provision of services / promotion
- Land development and sale
- Build to Suit Lease Back
- The Air Cargo/Logistics related initiative
- The CyberPort initiative

In addition, the Dube TradePort venture has the ability to source indirect income from:

- The concessioning of activities directly associated with the venture such as the Cyber Village, Intermodal Integrated Freight Link and digital networks created within its boundaries
It may also participate in other associated ventures and concessions occurring at La Mercy such as the passenger airport and hotel/commercial developments which are located outside its physical boundaries.

A further category of venture is that incorporating “social investment” which is not necessarily motivated by short term profit, but are more strategic in nature. These can take advantage of public sector and donor funds in individual enterprises such as SME/MBE programmes, empowerment ventures, and human resource training programmes.

Each of the abovementioned direct, indirect or social categories of investment have differing sources of capital and finance according to their specific goal.
10.3 Sources of Finance and Capital

The sources of capital and finance for the Dube TradePort can be categorized as:

**Initial Seed Capital**

The seed capital generated from such strategic entities such as KZN Province, Durban Metropolitan Unicity and Ithala.

Since it is expected that these funds would focus on the overall programme and would be committed to meeting the goals of the overall programme through the KZN – SPV, only a
portion would be used as seed capital for the Dube TradePort.

This seed money would be used for the two principal catalyst projects which include the Dube TradePort and the King Shaka International Airport each with 40% of the total, while the remaining 20% would be used for other ventures and/or projects.

Initial in-principle commitments have been received from the KZN Province and Durban Metropolitan Unicity, each committing to contributing Rand 250 million in equivalent payments over 5 years.

This equates to seed capital dedicated to the Dube TradePort of Rand 200 million over 5 years.

Land Allocation

The project at La Mercy incorporates a Master Planned development of over 2,500 hectares, which incorporates a number of designated areas.

The overall master planned area designated for the Dube TradePort incorporates:

- The Core function area \( \text{approx } 1220 \text{ ha} \)
- The Freight Intermodal Yard and Warehouse \( \text{approx } 265 \text{ ha} \)
- The CyberPort \( \text{approx } 120 \text{ ha} \)
However, this area incorporates land designated for strategic ventures or use, such as the second runway, the pilot organic farming operation and areas designated as environmental barriers.

The Dube TradePort SPV however, as a profit motivated venture, is focused on incremental land development for the establishment of viable businesses.

To achieve this, the land dedicated to the Dube TradePort to satisfy its direct activities as part of the overall Master Plan would incorporate:

- Land with direct airside access $100\ ha$
- Land with indirect airside access $100\ ha$
- Land focused on conv. Mfg and warehousing $140\ ha$
- Commercial develop. Including $20\ ha$ retail and service $360\ ha$
- CyberPort – high tech office $80\ ha$

Total $1605\ ha$
The total area required as part of the master plan dedicated to direct Dube TradePort activities, is 360 ha, with an additional 80 ha for the CyberPort – high tech office function.

According to the base case “low end”, the land required (excluding the CyberPort) is estimated at approximately 130 hectares i.e. one third of the total, (by the end of the third phase).

In contrast, according to the preferred or “best case scenario”, this absorption rate would be achieved within the first five years of the development (by the end of the first phase).

It therefore appears that a 360 hectare parcel of land plus the 80 hectare for the CyberPort (approximately 440 hectares) should therefore be sufficient for the DTP–SPV. This should be supplemented by an option to acquire additional adjoining property should there be the demand.

This land would be provided by the KZN–SPV to the venture as part of its strategic investment.

The value of a 440 hectare piece of undeveloped agricultural land at Rand 60 to 80 per square metre would range between 26 to 35 million Rand.

The financial benefit of this land allocation to the two SPVs would be determined as a result of the cost of the land as made available by the central government and its resultant effect
on the financial viability of the individual ventures.

Credits and Guarantees

In evaluating the alternatives for the definition of the business plan, it has been determined that potential credits and guarantees will be available.

This includes those available as export credits in foreign currency denomination, for the importation of special systems and equipment not available within South Africa.

In addition, USAID has a programme, that enables it to participate in ventures such as the project at La Mercy, where it provides a guarantee of 50% of the loan finance with a minimum capital investment of $300,000 as an equity partner.

Private Sector Equity Partners

It is the intention to develop the Dube TradePort as a public–private sector initiative by the creation of the DTP–SPV (Dube TradePort Special Purpose Vehicle).

The principle equity participants in the project are to be the KZN–SPV (not for profit entity) and private sector participants such as Old Mutual and other such entities with varying shareholding. A potential equity split as part of this arrangement is that the private sector holds two thirds (66%) of the equity, while the KZN–SPV as the public sector entity, would contribute one third of the capital.
On the basis of such an assumption, the maximum potential capital that could be available for the Dube TradePort over a five year period would be:

KZN–SPV participation  200 million
Private Sector participation  400 million

600 million Rand

It would further be expected that the public sector percentage participation would subsequently diminish, while maintaining the strategic focus of the development.

However, in order to maximize the returns of the investors, the required equity level and proposed exit strategy for the strategic partner will need to be defined as part of a structured finance plan which best meets the objectives of the individual stakeholders.

As a result of this evaluation it was determined that a smaller initial capital amount of Rand 360 million.
### Dube TradePort – Sources of Capital - Finance

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEED CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ithala</td>
<td>Rand 50 million per annum over 5 years</td>
<td>Total R250m</td>
</tr>
<tr>
<td>KZN Province</td>
<td>Rand 50 million per annum over 5 years</td>
<td>Total R250m</td>
</tr>
<tr>
<td>Durban Metro City</td>
<td></td>
<td>Not necessarily</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All available to DTP</td>
</tr>
<tr>
<td><strong>LAND</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Government</td>
<td>Cost to SPV at 20% of existing</td>
<td>Value on Start Up Rand</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value increase a function of air platform and IDZ function</td>
</tr>
<tr>
<td><strong>CREDITS &amp; GUARANTEES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US – AID</td>
<td>US Gov’t Guarantee for 50% of loan finance</td>
<td>Guaranteed associated with minimum capital investment $300,000 as equity partner</td>
</tr>
<tr>
<td>Export Credits</td>
<td>Foreign exchange loans associated with foreign equipment exports</td>
<td>Try to minimise foreign loans</td>
</tr>
<tr>
<td><strong>FINANCE SOURCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan Finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond Market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Paper Market</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>POTENTIAL EQUITY PARTNERS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Mutual (RSA)</td>
<td>Minimum contribution associated with loan guarantee</td>
<td>$300,000</td>
</tr>
<tr>
<td>Lowe’s (USA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US – AID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ithala</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KZN Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durban Metro City</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- Value on Start Up: Rand
- Not necessarily
- All available to DTP
11. **FINANCIAL ANALYSIS**

The figures generated according to the base case “low end” scenario can be used as the basis of an analysis of cash requirements during the initial phases of the project (Phase 0, I, II, and III).

These include:

- The base case demand projection
- The base case cost projection
- The base case revenue projection

As part of this initial evaluation, it is estimated that the cost for use of the air platform is on the basis of landing fees. In addition, revenues are considered as earning before interest, depreciation and taxes, while incorporating project finance costs.

In addition consideration must be given to the capital investment contributions to be made by the individual partners, which include the KZN – SPV and the private sector participants.

For purposes of this analysis it was initially assumed that their equity participation would incorporate an investment of:

<table>
<thead>
<tr>
<th></th>
<th>KZN-SPV</th>
<th>Private Sector</th>
<th>KZN – SPV</th>
</tr>
</thead>
</table>
According to this calculation the equity investment exceeds the capital required to achieve a positive cash flow in the first revenue producing year of the project.

A reducing equity contribution has therefore been used to perform the analysis with a total capital contribution of R360 million.

This amount incorporates R20 million as an amount to bridge between Year 0 and Year 1, the first revenue generating year.

On this basis the total net revenue generated by the end of Year 15 (Phase III) is R2,600 million.

This estimate does not include any depreciation, interest costs beyond project finance needs during the implementation of Phases I, II and III.

In addition, consideration has not been given to the appreciation in value of the investment including the increased value of the remaining land.

The project cost estimate incorporates the acquisition of approximately 450 hectares as part of the Dube TradePort investment.

It is expected that the base case “low end” scenario that has been utilized will result in the development of one third of this area.
Consequently, it can be assumed that the remaining area land will have an appreciated land value.
12. THE KING SHAKA INTERNATIONAL AIRPORT – OVERVIEW

12.1 Overall Characteristics

The characteristics of the King Shaka International Airport were defined as a result of the study completed by the Schiphol Project Consult, part of the Schiphol Group, which was completed by the end of the year 2000.

Traffic Growth

As part of this study, traffic growth was defined on the basis of the IATA forecast as developed for the South Africa Airport Traffic Forecast Study. This study was carried out in May 2000 and used by ACSA for their development plans.

The study defined three scenarios; pessimistic, most likely and optimistic and the most likely scenario was defined as the base case as part of the financial analysis.

In a similar manner, aircraft traffic movements were defined according to the base case scenario and the expected traffic mix.

According to these projections significant milestones include:

- 3.2 million passengers per annum in approximately 2006
- 4.0 million passengers per annum in approximately 2011 to 2013
Air traffic movements excluding air cargo were projected to grow from 4,600 movements per annum to approximately 53,000 to 54,000 in 2011 to 2012.

Physical Characteristics

The physical characteristics of the airport proposed at La Mercy incorporates:

- A single 3,200 metre length runway providing intercontinental capability
- One parallel taxiway with a rapid exitway
- Navaids including DVOR/NDB and ILS
- An apron adjoining the passenger terminal capable of handling narrow body and widebody aircraft
- A passenger terminal able to handle both domestic and international traffic designed to handle 3.2 m.p. per annum on start up and 4.0 m.p. per annum by the end of the fifth year of operation
- Car parking able to handle 2000 cars, together with taxi and minibus holding locations
- Ancillary buildings including air traffic control tower and operations buildings, fire station, workshops and flight kitchen
➢ Equipment /system relocated from DIA

Public Infrastructure items which are incorporated as part of the project include the N2 highway connection, the provision of utilities and the Eastern Bypass for Route 102 are to be provided by the City.

The location of the passenger terminal is to the east of the runway on a site of approximately 80 hectares.

The adjoining land between the passenger terminal and the N2 highway of approximately 200 hectares is dedicated to Associated Developments. The two parcels of land are to be developed as part of an integrated Master Plan.
12.2 Associated Developments

The Associated Developments, which are to be developed, would be synergistic with the developments of the King Shaka International Airport and the Dube TradePort.

They would be located in the 200 hectare piece of land to the east of the passenger terminal and would incorporate:

- A hotel development of approximately 100 rooms focused on both business and tourist traffic

- A World Trade Mart focused on providing exhibition and office space providing a one stop trading location
including the uninterrupted exposition of goods

- Strip retail and office developments focused on local traffic generated by the airport and the adjoining industrial development zone.

These three projects would be complemented by other synergistic projects to be located within the 200-hectare zones as part of a master planned development of the hotel with the World Trade Mart as core projects.

While it is expected that the passenger airport will involve direct investment by the private and public sector as a business enterprises at this stage, it is expected that the associated developments would be treated as concessions or BOOT projects. Therefore while the King Shaka International Airport venture would derive financial benefit, from

### King Shaka International Airport – Associated Development Capital Costs

<table>
<thead>
<tr>
<th>Hotel Development</th>
<th>2001 Rand (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Luxury Hotel</strong></td>
<td></td>
</tr>
<tr>
<td>Buildings : 100 rooms x R930,000/room</td>
<td>93.0</td>
</tr>
<tr>
<td>Site work : 18,000 m² x R190/m²</td>
<td>3.4</td>
</tr>
<tr>
<td>Land : 20,000 m² x R250/m²</td>
<td>5.0</td>
</tr>
<tr>
<td>F.F.E.</td>
<td>31.0</td>
</tr>
<tr>
<td>Soft costs at 20%</td>
<td>26.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>158.9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Retail Development</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strip shopping/Office</td>
<td></td>
</tr>
<tr>
<td>Buildings : 6,000 m² x R2,500/m²</td>
<td>15.0</td>
</tr>
<tr>
<td>Site work : 18,000 m² x R190/m²</td>
<td>3.4</td>
</tr>
<tr>
<td>Land : 20,000 m² x R1,000/m²</td>
<td>20.0</td>
</tr>
<tr>
<td>Soft costs at 20%</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46.1</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>World Trade Mart Development</strong></th>
<th>2001 Rand (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>313.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Total Start-up Capital Cost</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>518.4</strong></td>
</tr>
</tbody>
</table>

Notes:
- Value of land is a function of increased value from Dube TradePort and King Shaka at R250/m²
- Construction escalation at 5% p.a. over 5 years
- Return for associated developments as concessions estimated at 6% of capital cost escalated at 5% p.a.
these ventures they would not require any direct investment capital from the passenger airport venture.

12.3 Capital Cost Estimate

The capital cost estimate for the King Shaka International Airport is based on the information developed as part of the Schiphol assignment. This has then been adjusted according to changes in scope resulting from the new project scope.

The revised capital cost estimate in September 2001 prices was estimated at 990 million Rand.

This included the following principal costs:

- Landside civil; runway, utilities, roads and parking
- General infrastructure; utilities, roads and parking
- Lighting and nav aids
- Passenger terminal able to handle 4.0 m.p.p.a.
- Ancillary buildings; ATC tower, operations and workshops
- Soft costs including fees

The original cost estimate of Rand 990 million was therefore escalated to a 2006 figure of
Rand 1,368 million. This incorporates adjusted capital cost for imported items, resulting from currency fluctuations subsequent to September 2001.

The escalated capital cost, with an end of 2006 operational commencement date of end 2006 is therefore estimated at Rand 1,368 million.

Should the passenger building be constructed at start up to accommodate 3.2 m.p.p.a., then the capital cost could be reduced by approximately Rand 68 million. This would result in a capital cost of Rand 1,300 million.

However, due to the small comparative difference between these two figures, the Rand 1,368 million figure was used as part of the financial analysis.
12.4 Schedule

The target start up date for the King Shaka International Airport in mid July 2006. This would enable the commencement of passenger operations on a domestic and international basis.

Prior to commencing passenger operations, airside dependent functions would start one year earlier in mid 2005. This would be to enable the Dube TradePort to capitalise on the air platform for the export of goods and expedite the job creation process.

The first full year of operations of the King Shaka International Airport is therefore planned for the year 2007 and potential
revenues are projected commencing from this year.
13. KING SHAKA INTERNATIONAL AIRPORT - FINANCIAL ANALYSIS

13.1 Revenue Projections

The potential traffic movement as defined in the Schiphol study is one of the elements which determine the revenue to be generated at the King Shaka International Airport.

However originally, the airport at La Mercy was considered as a replacement of the existing Durban International Airport.

Consequently, financial considerations were largely analysed on the basis of the existing business model and airport profitability.

In order to determine the potential revenue of the future King Shaka International Airport, consideration was given to:

- The existing mix of international (widebody) to domestic flights and future increased number of widebody flights with their associated landing fees
- The multiplier effect on retail concessions and services which would result from a new airport development
- Maintaining a profitability rates of 30% to 40% margin in determining net revenue figures (excluding depreciation, interest and taxes).
Therefore, while using the existing 2001 operations as a benchmark, a revised start up (2006) year operating mix was defined. The expected revenue streams were therefore projected on this basis and estimated to include:

➢ **Airside Related Revenue** including:
  
  o Landing fees
  
  o Passenger service charges
  
  o Hardstand and parking
  
  o Ground support services

➢ **Landside Related Revenue** including:
  
  o Terminal retail concessions
  
  o Parking and car rental
  
  o Property rental
  
  o Other services

The revenue estimates were further increased on an annual basis according to passenger projections and an escalation rate of 5% per annum.

The net passenger (airside and landside) revenue was therefore determined using the abovementioned figures utilising a 30% profitability margin. It should be noted that existing operations are expected to achieve a higher margin than 30%, which is used as a worst-case scenarios.

In addition to the passenger related revenue, consideration was also given to the associated revenue generated by the development of the
hotel, World Trade Mart and commercial/retail complexes to be let out as concessions or BOOT projects.

As in the case of the Dube TradePort, this net revenue figure is estimated at 6% of the capital investment in the individual concession project.

### 13.2 Cash Flow Analysis

The cash flow for the King Shaka International Airport project is calculated on the basis of a capital expenditure in the start up year of Rand 1,368 million, an equity investment of Rand 800 million and the projected revenue according to the base case scenario.

It is assumed that this equity investment would be approximately two thirds (Rand 500 million) by a private sector participant and the remaining third (Rand 300 million) by the KZN – SPV.

On the basis of this assumption, the project experiences negative cash flow requiring additional loan finance with its associated interest payments.

The interest costs are estimated on the basis of a 15–year loan with a 14% annual interest rate. Interest and principal repayments are assumed as constant over the loan duration.

According to this calculation, a positive cash flow is only achieved in the twelve year of operation with a negative NPV at a 10% Discounted Current Value.
It is therefore apparent that according to this scenario the passenger airport cannot be implemented as an independent business venture.

However, as part of this analysis, consideration has not been given to the residual investment of the Durban International Airport or strategic (not for profit) offset.

13.3 Air Platform Capital Offset

The initial passenger airport venture cash flow analysis was performed on the basis of a capital expenditure of Rand 1,368 million and a capital investment of Rand 800 million.

This included the absorption of the cost associated with the creation of the air platform, solely by the KSIA (King Shaka International Airport) business venture.

No consideration was given to the national strategic value of creating an intercontinental air capability equivalent to that of the Johannesburg International Airport.

This new capability of providing a 3,200 in runway is in comparison to an existing runway length at the Durban International Airport of 2,440 metres.

In addition, the initial analysis does not consider the residual value of the existing land utilised for the existing air platform and passenger terminal.
On the basis of an independent appraisal, the land value at the Durban International Airport is estimated at approximately Rand 400 million.

Consequently, it is proposed that the KSIA –V (King Shaka International Airport Venture) financial analysis incorporate a capital offset for the air platform expenditure of Rand 500 million.

This figure approximates the cost to provide the required intercontinental air capability including; civil works, infrastructure, lightning and navaids.

An evaluation of the feasibility of the project should therefore take this capital offset amount into consideration as a result of its national strategic value.

13.4 Financial Analysis Including Capital Offset

An evaluation of the financial feasibility of the King Shaka International Airport including the air platform offset results in a reduced capital expenditure requirement of Rand 868 million.

In addition, the equity investment in the passenger airport venture according to this scenario, would remain the same as:

KZN-SPV – Rand 300 million
Private Sector Participants – Rand 500 million
On this basis, a positive net annual cash flow including interest, but excluding depreciation and taxes, would be achieved by the end of the first year of operation.

In addition, a positive NPV would be achieved at a 10% Discounted Current Value.

Therefore, should the strategic investment partner elect not to receive the same return on invested capital as the private sector partner, then the benefit to the private sector partner a 15% Discounted Current Value.

Consequently, it is apparent that with the air platform offset the King Shaka International Airport would be a viable business unit.

The viability of this project is however dependent on:

- Utilising the creation of an airport as part of a continental logistics gateway to expand on the existing operational concept
- Capitalising on the creation of a new airport to achieve improved operating margins to those achieved at the existing Durban International Airport
- Developing the passenger as part of an integrated master plan including associated projects such as the hotel, world trade mart and commercial/retail developments.
These issues need to be addressed in more detail as part of the business implementation plan with its resulting facility needs.

The implementation of the Dube TradePort and the King Shaka International Airport as viable business ventures can therefore be successfully achieved on the basis of the assumptions and proposed business methodology.

The creation of a Logistics Gateway incorporating the two projects as part of overarching plans therefore brings both financial and economic benefits to KwaZulu-Natal and the surrounding regions.