KZN INTEGRATED AEROTROPOLIS STRATEGY (IAS)

5th Draft October 2014

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FOREWORD

The global economy remains highly uncertain following the global economic recession that engulfed the international markets a few years ago. In recent times, the centre of events and much attention in global Markets revolved substantially around the United States of America (US), the unstable sovereign debt in the Euro region, the Arab Springs and the Ukraine crisis. The uncertainty prevailing in the global economy requires that emerging and developing countries develop clear policies and implement programmes to cushion their economies from these external vagaries and address the triple challenges of unemployment, poverty and inequality.

In KwaZulu-Natal, the provincial growth and development strategy (PGDS) is aligned to national macroeconomic policy frameworks such as the national development plan (NDP). The PGDS has identified a number of catalytic programmes that are aimed at advancing economic development and job creation. One of the programmes identified as a job driver and catalytic to economic development is Aerotropolis development.

The KwaZulu-Natal Provincial Government adopted the Aerotropolis concept as a catalytic project to advance industrialisation and drive economic development in the province. Significant strides towards this endeavour have been made with the commissioning of King Shaka International Airport and Dube Trade Port in 2010, marking an exciting chapter for the entire province. This multi-billion Rand development was the most significant infrastructure investment in the province over the past 20 years and provided the province with a truly world class facility. KZN is ideally positioned to respond to the changing nature of economic development and city building. Already, we have witnessed the impact the airport development has had on the north of Durban, Ballito area and the entire province. This region is becoming one of the fastest developing regions in the province and already attracted substantial private sector investment in property developments, looking to take advantage of proximity to an international airport.

The KwaZulu-Natal Integrated Aerotropolis Strategy (IAS), is a commitment by provincial government to ensure that the opportunities presented by King Shaka International Airport, the Dube Trade Port, the ports of Durban and Richards Bay, and other infrastructural assets such as roads and rail are fully exploited to drive the economic development in the province. The strategy seeks to synergise operations in and around the airport by bringing together competing visions for the area, especially those of municipalities, government departments, state-owned entities and other major private sector landowners to foster a truly strategically competitive airport-linked enterprise network that attracts new private investment.

The IAS is developed to be a living document that integrates plans of stakeholders to achieve goal congruence toward the development of the Durban Aerotropolis. It is, therefore, an

integrated provincial strategy, which commits stakeholders to its effective implementation. This collaboration has already been shown throughout the development of this strategy. We envisage all the stakeholders in the province to contribute fully to its implementation. The success of the province will be determined by all working together in harmony to better the lives of our people.

I take this opportunity to thank all our provincial role-players, investors and the business community for the hard yards made collectively since the advent of democracy in 1994. Let us once again, demonstrate the spirit of working together and put the main objective of building the economy of the province at the forefront of our collective engagements.

Michael Mabuyakhulu (MPP)	**Date**
MEC for Economic Development, Tourism and Environmental Affairs (EDTEA)	

VISION STATEMENT

The Durban Aerotropolis: The anchor of the province's Vision 2030 and Economic Development in KwaZulu-Natal.

The Provincial Government is in its second year of implementing the Provincial Growth and Development Strategy (PGDS). The PGDS sets out the provincial vision for 2030, which is aligned to the National Development Plan. Through this vision, the province aims among other things, to be the gateway to South Africa and the entire Southern African region.

To attain this vision, the PGDS identified a number of catalytic projects ranging from infrastructure development, investment attraction, business development and spatial economic development. One of these projects is the Aerotropolis. The Provincial Government is embracing the Aerotropolis concept as an anchor programme for modernisation and industrialisation and to advance our policy imperatives.

As part of implementing the PGDS, the Department of Economic Development, Tourism and Environmental Affairs (EDTEA) identified four critical programmatic interventions, namely, Aerotropolis, Maritime, Tourism, and Industrial Economic Hubs. The Aerotropolis project is identified as one, which will promote the gateway status of the province whilst engendering economic growth and job creation. This is expected to turn the region into a bustling hive of economic activity and become a regional economic powerhouse. The department is ardently pursuing the development of an Aerotropolis that impacts the entire province through connecting KZN regional economies to South Africa, the Southern African region and the entire global economy through King Shaka International Airport (KSIA). It is against this backdrop that the provincial Cabinet tasked the Economic Sectors and Infrastructure Development Cluster (ESID) to develop the Integrated Aerotropolis Strategy (IAS) with the aim of mapping the concept, bringing together all KZN stakeholders to a common purpose, and harmonise their plans for implementation. The success of the Aerotropolis project therefore requires the ability of government, municipalities, entities and the private sector to work together in implementing the strategy. The IAS is therefore a forward-looking roadmap to implement the Aerotropolis concept in the province.

The Aerotropolis is envisaged to bolster the already existing plans to develop a modern airport-driven city around King Shaka (Dube City) and the proposed Dube Trade Port Special Economic Zone (SEZ). With regard to industrial development, KSIA has the potential to become a magnet for firms to gravitate to, thereby allowing them to take advantage of economic linkages, connectivity, infrastructure and location. This is possible given the state of the art cargo facility, our road connectivity, and the two largest ports of Durban and Richards Bay. Clusters of business parks, logistics parks, industrial parks, distribution centres, information

technology complexes, and wholesale and retail trade centres can logistically benefit by locating themselves around this airport and along the transportation corridors surrounding them.

The Durban Aerotropolis is one of the few around the world utilising a "greenfield site" which is purposely tailor made as a platform to support air logistics. This creates the opportunity to put in place a plan that responds and capitalises on the location of the airport. We are thus able to manoeuvre and implement plans without any obstruction of already built-up areas experienced in other airports in the country and beyond. However, being a "greenfield site" means it would take considerable time and money in the long term. This is the comparative advantage that the IAS Strategy seeks to capitalise on, and explore all the opportunities that will grow the KwaZulu-Natal economy and uplift our people from unemployment and poverty.

Desmond Golding,   **Date**
Head of Department (HOD)
Economic Development, Tourism and Environmental Affairs (EDTEA)

EXECUTIVE SUMMARY

The KwaZulu-Natal Integrated Aerotropolis Strategy (IAS) is the culmination of an extensive consultative process and research into the viability of developing an Aerotropolis anchored around the King Shaka International Airport and the Dube Trade Port. This strategy is premised on ten strategic levers grouped into three (3) pillars, viz.:

a. **Foundational Pillar:** This pillar drives the viability of an Aerotropolis and the three (3) strategic levers within this pillar are as follows:

- *Growing Air Services and Connectivity* – An ideal Aerotropolis is characterized by an international airport that sees well over 10 million passengers and is connected to major international hubs like those in North America, South America, Europe, the Middle East, Asia, Africa, and South East Asia.

- *Integrated and Coordinated Spatial Planning* – Whilst air services define the functionality of the Aerotropolis, this lever has a lot to do with its urban or physical form. Given the fact that most Aerotropoli cut across municipal and sometimes provincial boundaries, the need to coordinate spatial planning amongst various municipalities is imperative. In the case of the KZN, the Aerotropolis straddles geographically along the boundaries of eThekwini, uMgungundlovu and iLembe. In the implementation of the strategy, these municipalities need to integrate their Spatial Development Frameworks (SDFs) and future planning has to be coordinated centrally to the extent that such planning includes the designated Aerotropolis area.

- *Equitable and Inclusive Growth* – This lever is an acknowledgement of the economic realities facing the province and the country at large especially as related to the historical background of the country. The triple challenges facing the country, namely unemployment, poverty and inequality, are largely a symptom of an economy where the majority of South Africans are excluded from the mainstream economy. Whilst this strategic lever would not be categorized as Foundational in other developed economies, it is nonetheless imperative in the case of South Africa.

b. **Core Pillar:** This second pillar is important in the medium to long term in that it supports and sustains economic growth in the Aerotropolis. The strategic levers under this pillar include the following:

- *Business Growth and Development* – The Aerotropolis has to be attractive to businesses that seek to locate near an international airport that is connected to various international destinations. Therefore, the success of an Aerotropolis will be measured by its ability to attract new foreign direct investments from those multinational corporations that are defined by "economies of speed to market". This strategic lever is about positioning the Durban Aerotropolis in that regard.

- *Knowledge Support and Human Capital* – One of the main considerations for locating a business is the availability of sector-specific skilled labour that can be deployed at relatively competitive rates. This strategic lever deals with the manner in which the Durban Aerotropolis will approach issues like shortage of skilled labour and/or how this labour can be attracted or retained for the local economic growth.

- ***Integrated Multimodal Transport Networks*** – Global economies thrive not only on connectivity, but also on integration, and multimodal transportation is an enabler in this regard. The efficiency of air travel is largely affected by the ease of travel between one's departure point to the departure airport and from the destination airport to the final destinations, the so-called first and last miles of air travel. This strategic lever identifies the areas that need to be improved to make the ground transportation of goods and passengers smooth and efficient.

c. **Support Pillar:** The support pillar serves to strengthen the other pillars, and whilst not specific to the Aerotropolis, it nevertheless supports various economic activities therein. The following strategic levers have been identified under this pillar:

- ***Place Marketing*** – This strategic lever is about the marketability of the Aerotropolis and its strategic positioning to potential investors, tourists, airlines, etc.

- ***Advanced Telecommunications Infrastructure*** – The growing importance of telecommunications technology is fast becoming a major contributor to the economic growth of global city economies. In this strategic lever the issues of cost, internet speed and accessibility are addressed.

- ***Infrastructure and Engineering Services*** – Inadequate and ageing bulk infrastructure is stifling economic growth in all three municipalities of eThekwini, uMgungundlovu and iLembe. Unless the backlogs in infrastructure, provision for water, sanitation, municipal roads, storm water and electricity are addressed soon, the development of the Aerotropolis could be negatively impacted.

- ***Environmental Sustainability*** – This strategy not only looks at environmental, but also institutional, economic, and social drivers of sustainability.

The KZN Strategic Roadmap

The Integrated Aerotropolis Strategy can be summarized as follows:

Table 1: KZN Integrated Aerotropolis Strategy Summary

Strategic Goal	Strategic Objectives	Proposed Interventions
1. Enhanced Air Services at KSIA and its Connectivity to Major International and Continental Hubs for both Cargo and Passenger Movements.	1.1 To develop KSIA into an alternate air passenger and cargo hub for South Africa with direct connectivity to other major hubs in Sub-Saharan Africa, London, Central Europe, Asia, North and South America.	▪ Escalate the KZN air services and route development agenda to higher government forums like MIN-MEC's on transport, tourism and economic development. ▪ Influence the granting of future rights that will benefit KSIA like those granted to Emirates for the KSIA frequencies. ▪ Ensure that the type of air traffic rights granted to the civil aviation authorities where those airlines are domiciled guide all KZN airline negotiations. ▪ Ensure full KZN representation and participation at all future air services negotiations led by NDoT. ▪ In improving relations with the national carriers, take full advantage of the forum initiated by the office of the MEC for Economic Development, Tourism and Environmental Affairs with the Ministry for Public Enterprises and the South African Airways. ▪ Use the hosting of World Routes 2015 in Durban and other related events to reach out to senior representatives of targeted airlines. ▪ Continually lobby airlines at industry shows like World Routes, IATA Slot Conferences and through regular visits to their headquarters. ▪ Work with major national and international tour operators (e.g. Tourvest, Thompson's and Thomas Cook) to develop travel packages in conjunction with the airlines serving KSIA and future potential ones. ▪ Ensure that KZN takes an integrated approach to airline negotiations that will include input from TIKZN, TKZN, Durban Tourism, Durban Investment Promotion Agency, etc. ▪ Develop an integrated airlift strategy and align it to that of NDoT and aviation policies. ▪ Establish a Route Development Fund and a Comprehensive Airline Incentive Program to grow air services at KSIA. ▪ Develop joint marketing programs around destination marketing between airlines and KZN entities, viz., DTP, TKZN, TIKZN, DKZNCB, City of Durban, etc. ▪ Investigate potential solutions, both infrastructural and operational, which will allow for the

Strategic Goal	Strategic Objectives	Proposed Interventions
		sustainable operation of Part 135 air services from KSIA without constraints on runway capacity.
	1.2 To grow air cargo to achieve full utilisation of the cargo facility at KSIA.	▪ Take advantage of the relaxation of air traffic restrictions for the airlines that seek 5th freedom rights for cargo. ▪ Identify passenger and cargo latent demand for air links to KZN regional airports, prioritising infrastructure upgrades at airports that will support KZN IAS strategic goals. ▪ Influence (through NDoT) the granting of 5th Freedom traffic rights for cargo, like those recently granted to Qatar Airways for Durban and Cape Town. ▪ Identify and classify the freight types to grow the air cargo industry. ▪ Identify and establish infrastructure required to support the air cargo industry. ▪ Identify, analyse and quantify the logistics requirements to grow air cargo (i.e. size of warehouse, location of warehouse relative to airport, security arrangements, etc.). ▪ Target key express freighters like FedEx and UPS to establish hubs at KSIA. ▪ Analyse the logistics requirements for express freight (e.g. warehousing, handling equipment, security, x-ray scanners, etc.). ▪ Establish an advanced documentation process in the Aerotropolis.
2. Integrated and Coordinated Spatial Planning by all KZN Governmental Stakeholders at Local, District and Provincial Levels.	2.1 To create a sustainable and functional urban environment that will support transit-orientated developments around key nodes that in turn underpin the development of the Durban Aerotropolis.	▪ Map out the Aerotropolis Core Area. ▪ Identify, analyse and classify current destinations/nodes within the Aerotropolis. ▪ Identify, analyse and quantify the existing transport linkages / corridors which relate to the nodes. ▪ Identify spatial opportunities and development priorities in accordance with these linkages. ▪ Follow a "no-boundaries" approach in the Aerotropolis. ▪ Develop a Spatial Development Framework for the Aerotropolis Core Area. ▪ Intensify the density of existing built-up areas through infill development and setting growth limits. ▪ Promote spatial concentration and densification. ▪ Guide cross-sectoral project implementation and integration. ▪ Identify areas where the fringes of the built-up areas are to be extended. ▪ Compact land pattern through medium-high densities and the promotion of mixed land use. ▪ Cluster economic activity around nodes and corridors. ▪ Improvement of vehicular access, particularly those with high occupancy and those carrying goods. ▪ Spatial inputs will take cognisance of the following elements:

Strategic Goal	Strategic Objectives	Proposed Interventions
		o Densification, diversification and intensification of land uses along key corridors.
		o The classification of the transport node / facility in terms of its role and function.
		o The ideal activity mix that should be established in and around this node/facility.
		o The corresponding housing typologies, including the ideal densities.
		o The commercial / employment types that should form part of the land use.
		o The proposed scale of development in and around this node / facility.
		o Connectivity in terms of the road system, transport network and intermodal functions.
		▪ Identify and delineate Economic / Industrial hubs.
		▪ Identify optimal land use mix to encourage clustering (what land use, where and why).
		▪ Modify the nodes and corridors as determined in the PGDS, NUDC, DTP plans, etc.
3. Equitable and Inclusive Growth that will address the Triple Challenges of Inequality, Unemployment and Poverty as Identified in the NDP.	3.1 To bridge the economic divide that is evidenced by the huge gap between the rich and the poor.	▪ Programme for incorporation of emerging enterprises (new entrants and SMMEs) into key clusters ▪ Develop a programme to leverage off existing state-owned entity offers such as Ithala, SEDA, etc. ▪ Develop a programme to leverage off existing national government programmes like the EPWP, Jobs Fund and the Employment Tax Incentive schemes. ▪ Develop an integrated programme that addresses economic transformation. ▪ Enterprise development programme that would focus on raising skills levels for start-ups and the creation of business opportunities for SMME's, particularly those in the marginalized communities (including an SMME Skills Plan) ▪ In coordination with the National SEZ implementation programme, identify relevant incentives for SMMEs and key and prioritised business clusters in townships and rural areas that can qualify for available SEZ incentives. ▪ Develop an up skilling and retraining programme to increase labour absorption rate in all new investments ▪ Develop an Aerotropolis SMME Participation Plan
4. Full Commercial Development and Occupation of all Available Land around in the	4.1 To position the Aerotropolis Core Area (DTP/KSIA) and its surrounding areas	▪ Strategic land acquisition to identify and release affordable, suitably zoned land to stimulate manufacturing-related investment in and around the Aerotropolis; ▪ Establish a programme to champion bulk service delivery and ensure alignment with planning levers ▪ Encourage the development of joint ventures with domestic partners to ensure that SEZ establishment is undertaken as a supporting tool to local business development

Strategic Goal	Strategic Objectives	Proposed Interventions
Aerotropolis Core Area (DTP/KSIA) and its Immediate Surroundings.	as an ideal location for businesses that primarily seek to locate near a growing international airport to enhance their global competitiveness.	▪ Implement a programme to ease the regulatory burden related to new investments (easy guide to establishment, dedicated support mechanisms like single point of interaction with Aerotropolis team) and eliminate red tape in the establishment of businesses and property development; ▪ Emerging business development programme, including assisting identification and packaging of new business specific incentives and partnerships with agencies like SEDA and Ithala, and negotiate favourable financing options for SMMEs ▪ Critical infrastructure development and planning programme ▪ Develop a national incentive access programme (i.e. DTI, etc.) ▪ Develop a package of existing local municipal incentives and engage with local government and stakeholders to develop local incentives that will encourage and stimulate investment ▪ Programme towards investigation of PPP option for DTP site to optimize desirability ▪ Investigate alternative models for partnerships between the public and private sector to optimize desirability of the DTP and wider Aerotropolis ▪ Develop a programme to encourage partnerships within the SEZ and Aerotropolis region between existing firms and new entrants by actively marketing local firm capabilities ▪ Business retention and expansion programme (including after-care / after-sales ▪ Investment promotion and facilitation programme to promote niche opportunities and sectors, ensure that inward investment targeted through integrated implementation of the SEZ at the DTP and surrounding areas (including related incentives), and create a competitive investment climate for new businesses that seek to locate within the Aerotropolis. ▪ Devise a programme towards the development of an optimal environmental, economic and social planning balance.

Strategic Goal	Strategic Objectives	Proposed Interventions
5. Optimum Knowledge Support, Thought Leadership and Human Capital that	5.1 To attract, develop and retain the specialised skills	**Thought Leadership – Aerotropolis Institute** In partnership with the four KZN tertiary institutions conduct the feasibility of establishing an Aerotropolis Institute. This Institute could be fashioned along the lines of the mooted KZN Maritime Institute and could be tasked with the following:

Strategic Goal	Strategic Objectives	Proposed Interventions
Meet the Industrial and Commercial Needs of the Growing Durban Aerotropolis with Potential to Export such Skills and Knowledge.	required for the development of the Durban Aerotropolis that will enhance its global competitiveness and establish thought leadership base from which other regions throughout Africa can benefit.	▪ Mobilizes pertinent data, information, and conduct research contributing to better Aerotropolis development. ▪ Establish benchmarks of performance and milestones of progress. ▪ Evaluate performance and progress in cooperation with Aerotropolis stakeholders, helping them redirect efforts when necessary. ▪ Educate the next generation of South African and African Aerotropolis leaders. ▪ Use the Aerotropolis development to create a knowledge economy and thought leaderships around the Aerotropolis concept. **Continuous Supply-Demand Analysis** ▪ Determine the skills requirements for the Aerotropolis. ▪ Monitor periodic changes in demand and supply patterns. ▪ Collaborate closely with the HRD team in the Office of the Premier. **Deployment** ▪ In Pillar 3 of the HRD Strategy it is proposed that there be Improved Governance and Management of the Human Capital. The implementation of this strategic pillar will ensure proper management of the scarce skills required to develop the Durban Aerotropolis, particularly in developing, attracting and retaining such skills. The results of the continuous skills demand-supply analysis will inform the management of all available human capital required for the Durban Aerotropolis.
6. Efficient Integrated Multimodal Transport Networks that Meet the International Standards of First and Last Mile of Air Travel.	6.1 To influence the development of efficient road and rail linkages to KSIA those that connect the major commercial nodes within the Aerotropolis study area.	The following interventions are proposed to provide an appropriate road-based freight and logistics corridors linking to KSIA: ▪ Mapping and analysis of all freight generating activities in the region and surrounding areas; ▪ Identify, analyse and classify the freight types being transported on the N2 and N3 corridors; ▪ Identify the origin and destination of freight types which could potentially benefit from the Aerotropolis; ▪ Establish the required infrastructure to support freight on the corridor; ▪ Identify connectivity requirements between the Aerotropolis and the corridors; ▪ Determine the logistic requirements of freight on the corridor and how the Aerotropolis can support or benefit from it (e.g. parcel sizes, infrastructure, security, etc.); ▪ Establish the logistics requirements to support freight along the corridor (i.e. warehousing, cold

		storage facility, truck stop facility, transhipment, etc.);
		▪ Establish intelligent transport capacity.
		▪ Prioritise road-based transport corridors that link townships and rural areas with the airport.
	6.2 To develop an efficient public transport system that will discourage the use of private vehicles.	▪ Mapping of public transport networks relative to the Aerotropolis development; ▪ Identify, analyse and classify public transport requirements to and from tourism nodes, areas of work, job opportunities and households; ○ Identify the most appropriate transport system within the Aerotropolis to connect all activities and the airport terminal; ▪ Identify the most appropriate transport system between the Aerotropolis and the existing rail network; ▪ Identify through PRASA infrastructure requirements/upgrades on the existing rail link. ▪ Determine the most applicable link between the Aerotropolis and the existing railway network. ▪ Identify the most efficient public transport system between the Aerotropolis and the Durban CBD; ▪ Develop the most appropriate public transport system between the Aerotropolis and the surrounding economic clusters; ▪ Integrate the different public transport modes as identified. ▪ Identify facilities to support the different modes of transport and Phasing of public transport initiatives
	6.3 To divert time sensitive road-based freight destined for Gauteng and other neighbouring states to air cargo.	▪ Identify and analyse existing air routes/destinations served by KSIA; ▪ Identify and analyse freight types which could potentially benefit from direct shipments; ▪ Establish a freight corridor between the Port of Durban and New Durban Dig-out port. ▪ Develop mechanisms to release containers with high-value goods on arrival at the port for distribution via the KSIA; ▪ Determine the logistics support systems required between the port and the KSIA. ▪ Support freight forwarders in the Aerotropolis. ▪ Establish a call centre equipped with advanced technologies in the airport city.

Strategic Goal	Strategic Objectives	Proposed Interventions
7. A Globally	7.2 To design, create and	▪ Research the brand elements and attributes of Durban Aerotropolis brand that are consistent with a

Strategic Goal	Strategic Objectives	Proposed Interventions
Competitive and a Strong Place Brand: Durban Aerotropolis, as Positioned in the Minds of International Tourists and Executives of Airlines, Supply Chain Community and Companies Seeking Location near a Major International Airport Hub.	position to the target market Brand: Durban Aerotropolis as the top of mind corporate identity that will project a globally competitive and attractive region.	generic Aerotropolis. ▪ Position the brand in the market place to target primarily airlines, investors, businesses seeking ideal airport city locations, tourists, etc. ▪ Test the new brand in the target market, ▪ Develop a brand manual with a set of guidelines that will maintain brand integrity. ▪ Ensure full buy-in of the brand: Durban Aerotropolis amongst all stakeholders, including those in the private sector. ▪ Develop a strong identity for the brand in terms of how it should be perceived by the target market. ▪ Develop a set of values for the brand that will build a competitive advantage for the Aerotropolis. ▪ Ensure that the development of the Durban Aerotropolis brand should embody the brand promises contained in the brand positioning statement. ▪ Subscribe to the Anholt-GfK Roper Global City Index to track the world's perception of Durban.
	7.3 To influence the development of an urban form that is consistent the Durban Aerotropolis brand attributes.	▪ Ensure strong links between the functionality of the airport city (DTP/KSIA) and the design and form that will meet the needs of travellers, businesses, etc. ▪ Ensure that the urban form resulting from the design of the Aerotropolis core informs and guides the design of the larger Aerotropolis. All this will be driven by the functionality of the airport city (DTP/KSIA). Landmarks, recognizable but not necessarily monumental or even well loved, provide points of reference.
	7.4 To position the Aerotropolis as the best tourist destination in Africa.	▪ Engage Tourism KZN, Trade and Investments KZN, National Department of Tourism, SA Tourism and Brand South Africa to align the Aerotropolis brand positioning in the minds of existing and potential KZN international tourists. ▪ Influence the implementation of the various strategies of these organisations, in particular the KZN Tourism Strategy and the NDT's National Tourism Sector Strategy.
	7.5 To position KSIA and the Aerotropolis as the most profitable destinations for airlines looking for a secondary hub in	▪ Continuously lobby global airlines in events like World Routes, IATA Slot Conference and through regular visits to their headquarters. ▪ Advertise in key publications focused on airline executives and other stakeholders in the aviation industry. ▪

Strategic Goal	Strategic Objectives	Proposed Interventions
	South Africa.	
	7.6 To position the Aerotropolis as the best place to locate one's business and as the best investment destination.	▪ Participate and showcase the Durban Aerotropolis at various targeted business forums, conferences, exhibitions, etc. ▪ Advertise in selected business publications with targeted readership.
	7.7 To position the Aerotropolis as the best host for major international events in areas of sport, MICE, cultural, etc.	▪ Highlight Durban's history of hosting major events like the 2010 FIFA World Cup, 2011 International Olympic Committee Session, 1995 Rugby World Cup, 2003 Cricket World Cup, 2013 African Cup of Nations, 2011 COP 17, Durban July, Comrade Marathon, etc. ▪ Link the hosting of major events with the other strategic plans like those in tourism, investment promotion and marketing to airlines. ▪ Showcase key assets like Moses Mabhida and the Durban ICC. ▪ Explore PR opportunities in all events hosted in Durban. ▪ Create opportunities for targeted airlines to partner on favourable terms with KZN in all the events hosted in the Aerotropolis.

| 8. An Advanced Telecommunications Infrastructure that Supports a Total Smart City Solution for Durban Aerotropolis. | 8.1 To develop the most technologically advanced, smart city solution in Africa that will provide the cheapest and fastest broadband connectivity at the lowest cost for businesses and residents located within the Aerotropolis | Costs of Accessing the Telecommunications Infrastructure
▪ Exploit infrastructure provided by the three undersea broadband cables that have been rolled out at Mtunzini with two (EASSY and Seacom) being active and the third one (SAEX) going live in 2014.
▪ Collaborate with all major role players including Telkom, Neotel, and Dark Fibre Africa (DFA), which have put extensive fibre backbones linking Mtunzini to Durban along the N2 corridor.
▪ Establish a collaborative forum of Aerotropolis stakeholders to pool the buying power for fixed and mobile broadband to drive costs down.
▪ Use the forum to negotiate lower prices from suppliers.
▪ Take advantage of the deals made through organs of state like the Department of Communications, SITA, etc.
Smart Aerotropolis Solution
▪ Pursue the design and implementation of the Total Smart Aerotropolis Solution, adapted using the Smart City Concept to enable the development of the following projects:
  o Remote flight check in, custom clearance, air cargo movements, tourist information, etc.
  o Smart Economy – competitive costs of doing business, attractive rates, etc. (Business Growth and Development);
  o Smart People – e-learning (Knowledge Support and Human Capital);
  o Smart Governance – On-line government services for residents, businesses, travellers, etc. (Business Growth and Development);
  o Smart Mobility – On-the-go business services suites (Business Growth and Development);
  o Smart Living – quality of life for residents (Sustainability);
  o Smart Environment – sustainable communities, health, safety, etc. (Sustainability);
  o Smart Buildings – energy efficient;
  o Smart Transportation – intelligent traffic management, intermodality, etc. |
| 9. A Solid Municipal Infrastructure and Engineering Services that Support a Continuous Supply of Services like | 9.1 To develop and maintain an infrastructure that will ensure that no municipal services are | ▪ Identify infrastructure investment needs especially in the case of ageing infrastructure for water and electricity reticulation.
▪ Explore the setting up of a special fund to finance bulk infrastructure for water, sanitation, electricity and municipal roads in priority development areas with the envisaged SEZ.
▪ Explore the use of SEZ incentive schemes to encourage private sector to make contributions for bulk infrastructure. |

Electricity, Water, Sanitation, Roads, etc.	interrupted, which would affect the businesses and residents located within the Aerotropolis.	▪ Align and consolidate the IDP's of the three municipalities (eThekwini and those in the districts of iLembe and uMgungundlovu) into one programme that addresses the needs of the Aerotropolis. ▪ Ensure that the major property developments in the Aerotropolis are not hampered by lack of basic infrastructure. ▪ Ensure that infrastructure investments are guided by the integrated spatial planning mooted in Strategic Lever II above.
10. A Sustainable Durban Aerotropolis that Embodies Economic Viability, Environmental Integrity, Social Inclusion and Strong Leadership.	10.1 To ensure that the development of the Durban Aerotropolis is sustainable in areas of economic, environmental, social and leadership	▪ Include and build on the local economic base. ▪ Support local economy – also regional hinterland in terms of applicable economic contributions. ▪ Create local skills base. ▪ Encourage local job creation ▪ Establish specific market focus areas for focused development and investment. ▪ Enhance the import and export capacity of the Aerotropolis concept. ▪ Promote sustainable local tourism. ▪ Focus on resource efficiency. ▪ Develop strategic mitigation measures where minimisation or conservation is not possible. ▪ Reduce carbon emissions. ▪ Minimise waste. ▪ Develop green corridors and allow for active and passive open spaces as a critical component to the design of the Aerotropolis. ▪ Assessment and understanding of local social needs and capacities. ▪ Active communication with local stakeholders and communities. ▪ Ensure transparency in information sharing. ▪ Facilitate local involvement to encourage buy-in. ▪ Focus on local job creation through long-term focused skills development programmes. ▪ Integration across all sectors, development focus areas and districts. ▪ Engagement with local stakeholders and communities. ▪ Commitment towards sustained growth, starting with a localised economic focus. ▪ Continuity in planning and growth.

Aerotropolis Governance Structure

The governance structure for the Durban Aerotropolis will start with the establishment of a multi-stakeholder body representative of governmental and private sector representatives. These stakeholders will sign a MoU that will commit them to support the development of the Aerotropolis. The Aerotropolis Unit within EDTEA, which will also provide a secretariat for Aerotropolis Steering Committee, will convene the meetings. There will also be a reporting line to the SIP 2 Stakeholder Engagement Forum. The steering committee will then oversee the implementation of the KZN Integrated Aerotropolis Strategy by the DTPC. The proposed structure is as per Figure 1 below.

Figure 1: Institutional Framework for the Implementation of KZN IAS
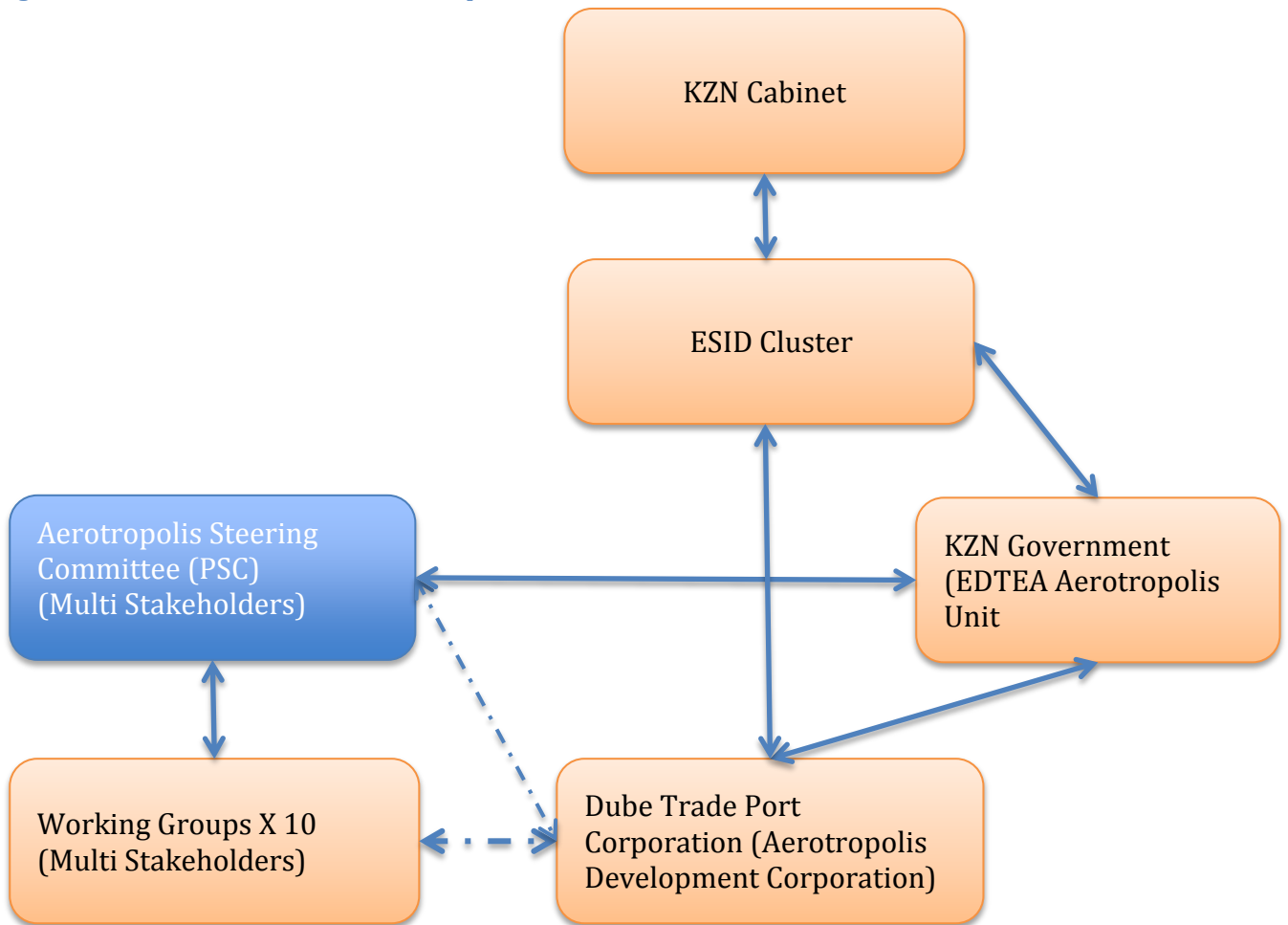
Monitoring and Evaluation

The Monitoring and Evaluation system will be based on the notion that "*what cannot be measured cannot be managed and what gets measured gets done*!" A set of quality indicators has been developed to measure performance on a biannual basis to inform the day-to-day management of the Aerotropolis by the Development Corporation. In order to ensure independence, the Aerotropolis Unit of the EDTEA will perform this monitoring and evaluation function.

2   INTRODUCTION

2.1   What is an Aerotropolis?

A new strategic approach to airport planning and associated industrial and commercial land use is gaining prominence around the world. This is the Aerotropolis model. An Aerotropolis is a city built around an airport offering its businesses speedy connectivity to their suppliers, customers and enterprise partners nationally and worldwide. These businesses (majority in the high-tech and high-value service sectors) are often more dependent on distant suppliers and customers than those located in their own metropolitan region.

An Aerotropolis also contains a full set of logistics and commercial facilities that support aviation-linked businesses and millions of air travellers who pass through the airport annually. These include, among others, forwarding, warehouse and distribution facilities, hotels, recreation, medical, convention, and exhibition complexes, and office buildings along with shopping, dining, and entertainment venues.

The U.S. Federal Aviation Administration defines an Aerotropolis as a 'planned and coordinated multimodal freight and passenger transportation complex which provides efficient, cost-effective, sustainable, and intermodal connectivity to a defined region of economic significance centred around a major airport.' Aerotropolis planning therefore spans land use planning and transportation planning. More specifically, with respect to Aerotropolis planning, land use planning includes reconciling firstly, the business site and profitability objectives of individual firms making capital investments, secondly, airport and surface transportation planning objectives of ensuring maximum access to the airport and business sites at the lowest possible cost, and thirdly, the urban planning objectives of overall economic efficiency, aesthetic appeal, and social and environmental sustainability. With respect to transportation planning, Aerotropolis planning also includes designing systems for efficient, secure cargo logistics and for safe personal mobility.

Aerotropolis planning is unique in that business, urban, airport, and surface transport objectives noted above are addressed together to create economically efficient, attractive, and sustainable airport area development. This replaces the chaos, confusion, congestion and unsightliness evident at and around many major airports detracting from their image.

Integrated surface transportation planning around the airport is particularly important because people and product air journeys neither begin nor end at the passenger and cargo terminals. Passengers and cargo often spend considerable time, and expense, in getting to and from airports and in negotiating airport obstacles, creating "last mile" and "terminal" costs. Because "terminal" and "last mile" costs can be substantial whereas the marginal costs of flying an extra mile are often insignificant, those airports and surrounding areas,

which successfully minimise those costs, are often able to enhance their economic competitiveness, and therefore their attraction, as a location for business investment.

Aerotropolis planning, therefore, differs from conventional airport planning by considering "inside the fence" terminal, mutually beneficial "outside-the-fence" development, and "last mile" costs holistically. We learned years ago that the battle for airfreight and thus the industries using airfreight is increasingly won on the ground through good surface accessibility. The same is true with passenger travel. For example, in the United States, more than half the time spent on air journeys between Chicago's downtown and New York City's downtown is famously spent on the ground, locked in freeway gridlock, terminal congestion, or backed up on airport taxiways.

2.2 Purpose of this Report

The purpose of this report is to present the KwaZulu-Natal Integrated Aerotropolis Strategy. This also presents the institutional arrangement (structure) that is necessary to implement the strategy.

The scope of this report is limited to the presentation of an Integrated Aerotropolis Strategy for KZN, but does not go into detail about the implementation of this strategy, save for an Implementation Framework. It is envisaged that the implementation plan will follow the approval of this strategy.

2.3 Project Implementation

2.3.1 The Project Brief

The KwaZulu-Natal Provincial Government, through the Department of Economic Development, Tourism and Environmental Affairs (EDTEA), adopted the Aerotropolis concept, which informed the development of the Dube Trade Port and the relocation of the Durban International Airport to the new King Shaka International Airport (KSIA). In order to expand on the initial phase of developing an Aerotropolis around Dube Trade Port, the EDTEA sought to formulate a comprehensive Aerotropolis strategy for the KwaZulu-Natal Province. To this end, a study was commissioned to develop the KZN Integrated Aerotropolis Strategy with the following deliverables:

- **Phase I:** To undertake a detailed background study, which must address some key objectives:
- **Phase II:** To develop an implementable KwaZulu-Natal Integrated Aerotropolis Strategy and a detailed implementation and monitoring framework; and
- **Phase III:** To provide technical advisory support in implementing the Strategy.

The Department established a Project Steering Committee with the following organisations represented:

- EDTEA and its entities: Trade and Investments KZN, Tourism KZN, Dube Trade Port Corporation, Durban KZN Convention Bureau, Richards Bay Industrial Development Zone and Ithala Development Finance Corporation.
- Municipalities: eThekwini, iLembe, UMgungundlovu, Msunduzi and KwaDukuza.
- KZN Departments: Cooperative Governance and Traditional Affairs, Transport, Planning Commission Secretariat, Treasury, Agriculture, Environmental Affairs and Rural Development;
- State Operated Entities: Transnet National Ports Authority, Transnet Freight Rail, Passenger Rail Agency of South Africa (PRASA) and South African National Road Agency Limited (SANRAL), Airports Company of South Africa Limited, South African Airways, SA Express and Mango Airlines.
- Other non-governmental and private sector organisations: Ingonyama Trust, KZN Growth Coalition, South African Property Association (SAPOA), iLembe Chamber of Commerce and Durban Chamber of Commerce.

The function of this Steering Committee has been to oversee the development of the KZN Integrated Aerotropolis Strategy.

2.3.2 Project Execution Methodology
The process followed in drafting the Integrated Aerotropolis strategy is depicted on Figure 2.

Figure 2: IAS Formulation Methodology
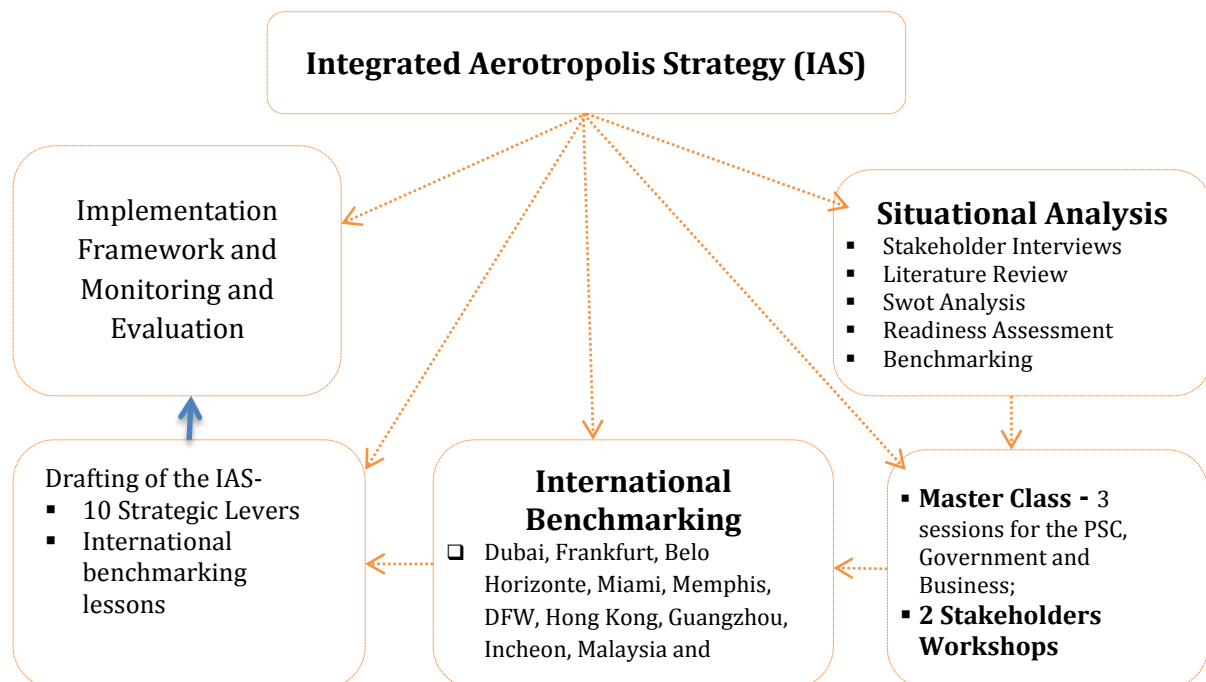
Source: EDTEA 2014

2.3.2.1   Phase I – Situational Analysis

▪ ***Stakeholder Interviews:*** Various KZN and national stakeholders were interviewed with a view to soliciting their input and also to align their thinking and position in relation to Aerotropolis KZN.

▪ ***Literature Review:*** The choice of literature that was reviewed was guided by the extent to which those selected documents have a bearing on the development of the KZN Integrated Aerotropolis Strategy. The starting point was the over-arching KwaZulu-Natal Provincial Growth and Development Strategy (PGDS) and the Provincial Growth and Development Plan (PGDP). The team was also guided by the 4 strategic key focus areas of the then KZN Department of Economic Development and Tourism, viz., Aerotropolis, Industrial Hubs, Tourism and Maritime.

▪ ***Stakeholder Workshops and Master Class:*** This workshop was the culmination of stakeholder consultations and literature review. The workshop was also an opportunity for stakeholders to deliberate on all information gathered to the extent that such information is relevant to the development of the KZN Integrated Aerotropolis Strategy. This one-day workshop incorporated an Aerotropolis Master Class presented by Professor John D. Kasarda, who pioneered the Aerotropolis concept. In attendance at this workshop were members of the Project Steering Committee, KZN stakeholders and other relevant private sector stakeholders. Two guests from the State of Minas Gerais in Brazil also attended the workshop to share their experiences in developing the Belo Horizonte Aerotropolis. Another workshop and Aerotropolis Master Class were organized to test the strategic framework.

Phase I – Data Analysis

The analysis of the information gathered was analysed under the following headings:

▪ Readiness Assessment;
▪ Competitor Analysis;
▪ Economic Analysis; and
▪ SWOT Analysis.

Phase 2- Implementation Framework and Monitoring & Evaluation Framework

Phase 2 involved the drafting of the Integrated Aerotropolis Strategy (IAS) and the Implementation framework including the Monitoring and Evaluation plan. This phase entails identifying the key stakeholders and specific projects to implement the strategy. The monitoring and evaluation framework provides a mechanism to monitor implementation progress and evaluating the impact of specific interventions.

2.4   Report Structure

The body of this report is structured as follows:

▪ ***Section 2 – Where We Are Now? (Status Quo):*** This section sets the scene for the strategy and gives insight into the status quo, vis-à-vis the development of the Durban Aerotropolis.

- ***Section 3 – Where We Want to Go? (Strategic Choices):*** This section covers the strategic choices that are presented to the Durban Aerotropolis.
- ***Section 4 – How to Get There? (Strategic Roadmap):*** This section charts the strategic roadmap for the development of the Durban Aerotropolis and identifies the strategic levers that will guide this development.
- ***Section 5 – What Will it Take to Get There? To Get There (Implementation Framework):*** This section is a full discussion of various options for an implementation structure for the proposed strategy.
- ***Section 6 – Are We Getting There? (Monitoring & Evaluation):*** This section includes the Monitoring and Evaluation Framework for the implementation of the KZN Integrated Strategy.
- ***Section 7 – Strategic Imperatives:*** This section is about what matters most in the implementation of this strategy.
- ***Section 8 – Conclusion:*** This is the overall concluding remark on the whole project.
- ***Section 9 – Annexures:*** Some detailed information has been moved to this section owing to its size.

3   WHERE WE ARE NOW? (STATUS QUO)

3.1   Durban Aerotropolis Situational Analysis

3.1.1   Summary

3.1.1.1   The KZN Economy

The robustness or resilience of the KZN will remain a crucial determining factor in the growth of the Durban Aerotropolis. Certain sectors could play a major role in sustaining this growth. Agriculture, forestry and fishing are key industries to develop and grow, as they and the Aerotropolis are mutually beneficial. The Dube AgriZone presents massive opportunities for exports of high quality produce to regional and overseas markets.

Manufacturing is another key sector for the Aerotropolis given the key role that this sector plays in the international import and export market environment. The sector is one of the strategic pillars of the KZN PGDP and is expected to enhance industrial development through trade, investment and exports. Whilst these primary and secondary sectors will continue to provide KZN with a competitive edge, other sectors are emerging that have a support role for the Durban Aerotropolis. Some of these sectors include financial services, transportation, communications, construction, tourism, etc. Clustering of these sectors through industrial hubs can harness the potential of the Aerotropolis and King Shaka International Airport to reach international markets and improve efficiency.

The then KZN Department of Economic Development and Tourism has identified four strategic pillars to grow the KZN Economy, namely Maritime, Aerotropolis, Tourism and Industrial Economic Hubs. The three pillars (Maritime, Tourism and Industrial Economic Hubs) are of strategic importance in developing and growing the Durban Aerotropolis. The Maritime industry provides the Durban Aerotropolis with the opportunity to harness a supply for light and time-sensitive goods that need to be moved to and from Sub-Saharan Africa and other international destinations. Industrial Economic Hubs, particularly those in light manufacturing and value-adding activities will boost air cargo movement at King Shaka International Airport. Tourism and aviation are intricately linked and interdependent. Growth in tourism will improve passenger movements, particularly from long haul source markets, and will ultimately build a case for direct connectivity to KSIA.

In reference to the National Strategic Infrastructure Projects (SIPs), SIP 2 has identified development of the Durban Aerotropolis as key project in order to improve the efficiency of connectivity between Durban and Johannesburg. This supports the vision for KZN as identified in the PGDS, which seeks to establish KZN as a gateway to South and Southern Africa.

3.1.1.2 "In the Air" Connectivity

King Shaka International Airport, the tenth busiest airport on the African continent and third busiest in South Africa, serves Durban, the third largest city in South Africa and KwaZulu-Natal, the country's second most populous province. Owned and operated by Airports Company South Africa (ACSA), KSIA is currently linked to 5 international destinations and 8 domestic destinations by ten commercial airlines. Together, they handled 4 668 467 passengers in 2012-13, including 226 764 international passengers. This represents a 7% decline in passenger numbers compared to figures for the similar period in the preceding year, a decline that can partially be attributed to the demise of low cost carriers 1-Time and Velvet Sky, as well as the continuing effects of the 2008 Global Economic Crisis. KSIA is a hub for low-cost carrier Kulula and a hub for South African Express and SA Airlink.

The viability of the Durban Aerotropolis hinges on the continued growth in passenger and cargo airlift out of KSIA. It is for this reason that KZN embarked on a global campaign to develop air services through direct connectivity of KSIA to other international hub airports in cities like Dubai, London, etc. The start of direct connectivity with Dubai was a huge milestone in this campaign, since the Dubai International Airport has the second (only to Heathrow) most international connections in the world.

Airlines are always looking for more profitable markets in their route development strategies. The growth of tourism in KZN through better and expanded product offerings is envisaged to boost air travel from key markets with a huge impact on air services at KSIA.
In order to improve "In the Air" connectivity, KSIA will have to overcome some of its inherent challenges. On the passenger side, the airport is still being considered by SAA and ACSA as a feeder airport to OR Tambo International Airport (ORTIA). Major airlines like British Airways do not view KSIA as a perfect candidate for direct connectivity from their hub airports like Heathrow. These airlines are happy to bring passengers to the ORTIA hub and then do backward distribution to KSIA.

On the air cargo side, KSIA faces stiff barriers, which make airfreight costly as compared to road travel. The airfreight costs are 4 to 5 times more expensive than road freight and up to 16 times more expensive than sea freight. As a result, commodities that are sent via airfreight usually have high value per unit or are time sensitive. None of the KZN top 20 export products are viable for airfreight.

Increasing airlift out of KSIA for both cargo and passengers is a very daunting task for KZN, but the strategies that are being implemented by DTP and KZN are beginning to bear fruit. KZN is the only destination in the whole country that is actively and aggressively pursuing a strategy of growing air services. The province is very active in international events like World Routes in reaching out to international airlines.

3.1.1.3 "On the Ground" Connectivity

Air travel is the cornerstone of the so-called economies of speed, which embodies the new economy. Air travel accounts for up to 40% of the value of global trade, but only 2% in weight. It is for this reason that ground transportation to and from international airports has to match air travel through swift connectivity. This is what is referred to as the first mile and last mile of air travel. Any delays and bottlenecks in travel to and from an international airport negate the swiftness of air travel, and this has huge negative implications for air services.

Ground connectivity by road and rail is therefore critical in supporting "in the air" connectivity. Whilst all three spheres of government have been keeping up with the growth of motor vehicles by building and expanding roads, the peak hour congestions still pose a challenge for airport access. Peak hour bottlenecks at intersections like the EB Cloete N2/N3 Interchange; the Umngeni and the Gateway interchanges are negating the speed advantage of air travel. Fortunately, the new upgrades at the Umngeni and the Gateway interchanges will go a long way in alleviating some of these bottlenecks.

Lack of rail connectivity is also not helping the cause of KSIA. PRASA have responded to this shortcoming by proposing a rail line that runs parallel to the N2 and will connect Durban central, Umhlanga, KwaDukuza and runs through the airport and will proceed to Tongaat. Currently a study is in progress where the following options are considered:

- **Option 1**: Improved / modernised North Coast Line
    - Use of the existing North Coast Rail Line
    - An option of an Express service with fewer stops could be introduced for airport passengers
- **Option 2**: Durban – Mt Edgecombe/Cornubia – KSIA – Tongaat
    - In this scenario a new Metrorail Link (off the existing North Coast Line) is proposed from Mt Edgecombe to Cornubia, past the Airport and to connect at Tongaat.
- **Option 3**: New High-Speed Rail Link: Durban – Umhlanga - KSIA
    - High-speed line starting at the Durban station, and ending at the King Shaka International Airport, with possible extensions to Ballito or Tongaat.

3.1.1.4 Airport Terminal-Linked Development

A key opportunity to maximise development value within a walkable radius from the terminal building needs to be optimised. This opportunity exists at the point of modal transfer, in the space between where arriving passengers alight from aircraft and board a bus or taxi, collect a hire car or enter the car parks, or vice versa for departing passengers. This opportunity exists within a 5-minute/400m walking radius from the terminal building, in line with recognized principles of Transit-Oriented Development nodes.

Ideally, during early phases of airport city development, it is advisable to locate early commercial phases directly adjacent to terminal around the piazza, possibly via a joint venture between ACSA and DTP, to offer convenience to passengers and a competitive advantage to businesses. The commercial precinct could subsequently have been grown southwesterly towards the site of 29 South building. In time, Dube City will benefit from a potential collective critical mass of a single commercial precinct linking from the terminal precinct. For this to occur, the location and design of future phases of car parking and car hire holding areas on the ACSA land portions will need to be considered to avoid them interrupting seamless walkability and urban continuity between the Terminal Precinct and Dube City.

3.1.1.5 Aerotropolis Governance

The governance of the Durban Aerotropolis is overly fragmented. There is currently no unitary governance structure or single overarching institutional structure to oversee the planning and implementation of the Aerotropolis concept at the provincial level. This fragmentation is having an adverse effect upon progress in building consensus around the Aerotropolis concept and shaping a single holistic vision for the development of the Durban Aerotropolis to the mutual benefit of all key stakeholders. The fragmented governance model also allows the situation to develop where municipalities, SOEs and private landowners effectively compete for the same businesses and tenants, negating the potential advantages of building economies of scale through clustering of interlinked land uses.

Ideally, the actions of all KZN stakeholders with regard to the Durban Aerotropolis should be guided by a single purpose. KZN should speak with a single united voice to potential businesses, airlines, investors and decision makers, rather than the current cacophony of conflicting messages, all competing for the same attention and market share.

3.1.1.6 Knowledge Support

For a growing and viable Durban Aerotropolis, KZN has to commit to the following initiatives:
- Establish solid partnerships with KZN tertiary institutions.
- Bridge the knowledge gap on the part of the Durban Aerotropolis stakeholders.
- Establish a knowledge hub on key sectors like aviation, light manufacturing, tourism, maritime, etc.
- Establish partnerships with national and international research foundations.
- Build a knowledge centre for further education.
- Ability to attract and retain the skills required for the development of an Aerotropolis.

3.1.1.7 Telecommunications Infrastructure

Broadband connectivity within the Durban Aerotropolis is an indispensible economic infrastructure that is required to integrate all economic nodes within the larger area. The

initiatives around the Dube iConnect and the eThekwini MetroConnect solutions are very encouraging but will have to develop into an Aerotropolis wide smart city solution with applications in, inter alia, the following areas:

- Intelligent traffic management;
- Travel planning;
- Business Process Outsourcing;
- Energy usage;
- Environmental sustainability;
- Exports and Imports processing;
- E-commerce;
- Banking and money market;
- Global interface and integration;
- Knowledge economy;
- Customs;
- Business Intelligence;
- Security and surveillance;
- Research and Development;
- Seaport integration;
- Supply chain processes;
- Logistics support; etc.

The biggest hurdle that KZN faces is the cost at which fixed and mobile broadband is accessed at speeds higher than national averages.

3.1.2 Competitor Analysis

The 7 international airports that have been identified as main competitors for KSIA are as follows:

- South Africa: OR Tambo and Cape Town;
- Regional: Lagos, Jomo Kenyata (Nairobi), Addis Ababa, Cairo;
- Middle East: Dubai.

KSIA boasts some 4.7 million passengers per annum, but only less than 5% of these passengers are international travellers and the rest are domestic passengers. The 2 main local competing airports for KSIA are OR Tambo International Airport and Cape Town International Airport, which have better connectivity and passenger numbers.

In the Sub-Saharan African region, KSIA might compete well in terms of passenger statistics, but the picture changes when one looks at the direct connectivity of airports such as Jomo Kenyatta, Lagos and Addis Ababa. Their proximity to the major aviation hubs of Europe, North America and the Middle East make these airports good prospects for direct connectivity. The growing economies of the countries wherein these airports are located, further dilutes the competitive advantage for KSIA.

The inclusion of Dubai as a competitor for KSIA is that the UAE airport has over the years positioned itself as the de facto gateway to African markets through the aggressive strategy of Emirates Airlines. This airport, which has the 2nd best international connectivity (1st is Heathrow), serves as a benchmark for any African airport that seeks global expansion.

Notwithstanding the shortcomings in connectivity and air services at KSIA, the Durban Aerotropolis has the best prospects after Dubai. The green field nature of the development around KSIA gives the Durban Aerotropolis a competitive advantage over potential Aerotropolis developments around airports like OR Tambo (which is said to be a "brown field" development). The fact that KSIA is a state of the art airport with the best cargo logistics facility makes it the best airport in Africa. The Durban Aerotropolis therefore has the best prospects for development and growth in the continent, made possible through the growth in air services and direct connectivity.

3.1.3   Relative Comparative Strengths

Table 2: KSIA Comparative Analysis

DUR KZN/KSIA (Included for benchmarking purposes)	JNB OR Tambo International Airport, Gauteng	CPT Cape Town International Airport	NBO Jomo Kenyatta International Airport, Nairobi	ADD Addis Ababa Bole International Airport	HRE Harare International Airport	LOS Murtala Muhammed International Airport, Lagos	CAI Cairo International Airport
▪ World Class airport and road Infrastructure. ▪ Home to Sub-Saharan Africa's busiest container port. ▪ Coastline and pleasant sub-tropical climate.	▪ Air connectivity. ▪ Strength of provincial economy. ▪ World-class airport and road infrastructure. ▪ Financial services hub ▪ Home to numerous Corporate Head Offices. ▪ Gautrain Rapid Rail Link to airport.	▪ Air connectivity ▪ Strength of tourism market ▪ World class infrastructure ▪ BRT link to airport	▪ Air connectivity. ▪ Growth in air cargo market. ▪ Ambitious flag carrier. ▪ Centrally located within Africa & Middle East Region.	▪ Ambitious flag carrier. ▪ Centrally located within Africa & Middle East Region.	▪ Domestic market size. ▪ Poised for growth.	▪ Domestic market size (population is the largest in Africa at 168 million) ▪ City size (Lagos is home to 7 million people).	▪ Air connectivity. ▪ Domestic market size. ▪ Strength of tourism market. ▪ Centrally located between key markets: Europe, Asia and North America.

AIR SERVICES AND CONNECTIVITY

▪ Recorded 4,6 million passengers in 2012/13. ▪ Direct airlinks to 5 Africa & Middle East and 8 Domestic destinations. ▪ Active and aggressive air services development programme. ▪ State of the art cargo logistics facility.	▪ Recorded 18,6 million passengers in 2012/13. ▪ Direct airlinks to 21 Long Haul, 56 Africa & Middle East and 18 Domestic destinations. ▪ Busiest airport in Africa.	▪ Recorded 8,4 million passengers in 2012/13. ▪ Direct airlinks to 7 Long Haul, 7 Africa & Middle East and 10 Domestic destinations.	▪ Recorded 5,8 million passengers in 2011. ▪ Direct airlinks to 11 Long Haul, 42 Africa & Middle East and 5 Domestic destinations.	▪ Recorded 5.1 million passengers in 2011. ▪ Direct airlinks to 19 Long Haul, 52 Africa & Middle East and 16 Domestic destinations.	▪ Direct airlinks to 2 Long Haul, 12 Africa & Middle East and 2 Domestic destinations. ▪ Active air services development programme in place.	▪ Recorded 6.7 million passengers in 2011. ▪ Direct airlinks to 10 Long Haul, 23 Africa & Middle East and 15 Domestic destinations.	▪ Recorded 13 million passengers in 2011. ▪ Direct airlinks to 30 Long Haul, 33 Africa & Middle East and 13 Domestic destinations. ▪ Active air services development programme.

GROUND CONNECTIVITY & INTERMODALITY

▪ Good road links via the N2 and N3 highways. ▪ No rail link currently, although investigations are underway for a link to CBD and/or Umhlanga.	▪ Gautrain Rapid Rail Link connects OR Tambo to all major centres within 1-hour travel time. ▪ Excellent and newly upgraded highway links to the continental economic.	▪ Good road links via the N2 and N3 highways ▪ No rail link currently, although investigations are underway	▪ Access to CBD via the four-lane A109 Mombassa Road. ▪ No rail link currently.	▪ Located just 6km southeast of CBD. ▪ No rail link currently.	▪ Access to CBD via the two-lane Airport Road. ▪ No rail link currently.	▪ Current travel time from airport to Victoria Island is up to 3 hours due to road congestion. ▪ No rail link currently although Lagos Light Rail link to airport is proposed.	▪ Road connection via the six lane El-Orouba Road to the CBD 15 km away. ▪ No rail link currently, although Line 3 of the Cairo Metro is currrenty being extended to link to the airport.

TERMINAL-LINKED AIRPORT CITY DEVELOPMENT

▪ 5,000m2 of retail space within the KSIA Terminal and around the piazza. ▪ 4,700m2 office building on south side of the piazza. ▪ Dube City precinct. ▪ Hotel planned.	▪ Three hotels located adjacent to terminal. ▪ 10,000m2 office development planned. ▪ Significant terminal retail offering.	▪ Road Lodge hotel is located within terminal precinct. ▪ Plans have been formulated to develop a commercial office component within the terminal precinct.	The headquarters of the Kenya Civil Aviation Authority, the Kenya Airports Authority and African Express Airways are located on the airport grounds.	No significant Airport City development, other than the headquarters of Ethiopian Airlines and Ethiopian Airports Enterprise.	No significant Airport City development other than the headquarters of Air Zimbabwe and the Civil Aviation Authority of Zimbabwe.	Arik Air Aviation Centre is located on the grounds of the airport.	▪ AirMall, a shopping mall located next to Terminal 1. ▪ New 350 rooms 5 star Le Meridien hotel opened in 2012, linked to terminal via a moving

							walkway.

SEAPORT SYNERGY

▪ Currently small but with potential for growth. ▪ Dube Cargo Terminal geared to process up to 100,000 metric tonnes of cargo per annum.	Goods currently being transported by truck from Durban harbour and airlifted via ORTIA to inland airports within the SADC region.	▪ Some synergy built around cruise liner tourism sector. ▪ Growing Western Cape based E-Commerce sector.	-Minimal	-Minimal	-Minimal	None currently, although expansion of cargo capacity is currently being investigated.	Cairo Cargo City planned adjacent to airport.

AEROTROPOLIS GOVERNANCE

▪ Dube Trade port Corporation oversees planning of the Airport City and Air Services Strategy. ▪ Governance of greater KZN-wide Aerotropolis is currently fragmented, but the establishment of a multi-stakeholder Steering Committee signals clear intention to address this shortcoming. ▪ DTPC would naturally assume fully the role of an Aerotropolis Development Corporation (ADC), but would require an extended mandate that goes beyond the "DTP Region[1]".	▪ No institutional vehicle exists, but a consultant team is about to be appointed to prepare an Ekurhuleni Aerotropolis Master plan. ▪ A tripartite MOU was mooted in 2011 to be signed by the City of Ekurhuleni, ACSA and Gauteng Provincial Government.	▪ No institutional vehicle exists that incorporates the City of Cape Town, Airport and other role players. ▪ ACSA Commercial mainly drives current initiatives.	No institutional vehicle exists.	No institutional vehicle exists.	None	Federal Airports Authority of Nigeria is driving the Aerotropolis Nigeria initiative.	Airport operator, Cairo Airport Company, is currently driving the Cairo Airport City Initiative.

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[1] DTP Region as defined in the DTP Act

STRATEGIC CONTROL OVER AIRPORT, AIRLINE & AEROTROPOLIS

▪ The airport is owned and operated by ACSA, which is majority state-owned. ▪ South African Airways, Mango and SA Express are state-owned by a different national department. ▪ Airport City, DTP and ACSA together control the bulk of the land surrounding the airport. ▪ Tongaat Hulett owns substantial land within a 30km radius. ▪ There is an "in principle" support of the current DTP Aerotropolis initiatives from ACSA/KSIA, eThekwini and other role players	▪ The airport is owned and operated by Airports Company South Africa, which is majority state-owned. ▪ South African Airways, Mango and SA Express are state-owned. ▪ The bulk of the land around the airport is controlled either by ACSA or by defence parastatal Denel.	▪ -The airport is owned and operated by Airports Company South Africa, which is majority state-owned ▪ -South African Airways, Mango and SA Express are state-owned	▪ -The airport is owned and operated by government entity, Kenya Airports Authority ▪ Flag carrier, Kenya Airways is 29.8% owned by the state, 26.73% by KLM with the remainder of the shares traded on the stock exchange	▪ -The airport is operated by Ethiopian Airports Enterprise (EAE) ▪ EAE also operates restaurants, hotels, banking, shopping, car parking and support facilities	▪ The airport is state-owned and operated by the Civil Aviation Authority of Zimbabwe ▪ Air Zimbabwe is state-owned	▪ The airport is owned and operated by ▪ state-owned agency, Federal Airports Authority of Nigeria ▪ -Nigeria has no state owned airline (largest airline, Arik is in private ownership)	▪ The airport is operated under a management contract by Cairo Airport Company, a subsidiary of Fraport AG Frankfurt Airport Services Worldwide ▪ EgyptAir, the Egyptian flag carrier utilising the airport as a hub, is state-owned

KNOWLEDGE SUPPORT

▪ Flying Schools located at nearby Virginia Airport. ▪ DUT has embraced the Aerotropolis concept and are considering ways to include it in their town planning programmes.	▪ SAA Technical at ORTIA is home to a Training Centre. ▪ The ACSA Training Academy is located in Bonaero Park on the eastern side of ORTIA.		Kenya Airways Technical Training School is located on the northern side of JKIA.	Home to the Ethiopian Aviation Academy.	None	▪ The planned expansion of the Arik Air Aviation Centre includes a training centre. ▪ The Aerotropolis Nigeria initiative is also focusing upon increasing the number of aviation	EgyptAir Training Centre is located at the airport.

						professionals in the country via support for the Aviation College in Zaria.	

ADVANCED TELECOMMUNICATIONS

Dube iConnect is a DTP initiative to address the ICT needs of operators and tenants within the airport city.	City of Ekurhuleni has developed an extensive fibre network, which has not yet been put into use by local businesses.		▪ Kenya has ambitious plans to become Africa's ICT hub and to build a knowledge-based economy as part of its Vision 2030 ▪ The National ICT Master Plan, Connected Kenya 2017 aims to ensure that every citizen is connected and that public services are available to all through ICT ▪ The Konza Techno City, a planned ICT hub located 45km east of JKIA, is currently in planning phase				

ENVIRONMENTAL SUSTAINABILITY

Various measures in place to limit and mitigate the environmental impact of the airport.	Various measures in place to limit and mitigate the environmental impact of the airport.	Various measures in place to limit and mitigate the environmental impact of the airport.					

COMMERCIAL DEVELOPMENT (ON AIRPORT, OFF AIRPORT AND EDGE CITY)

▪ Umhlanga CBD. ▪ Cornubia proposed new development along the N2 corridor.	▪ Sandton CBD is the fastest developing edge city that is inspired by the 15-minute Gautrain airport connection. ▪ Others are fragmented and include: o Airways Park (SAA Headquarters).	Two industrial precincts located on ACSA-owned land adjacent to airport.	▪ Inland Container Depot Embakasi (ICDE). ▪ Headquarters of Kenya Airways and JetLink Express located in Embakasi.		None currently	As part of the Aerotropolis Nigeria initiative, plans are afoot to build cargo capacity with a view to increasing the export of perishable agricultural products from Nigeria.	▪ AeroCity (family leisure park). ▪ Oasis Project, a business park.

o Emperor's Palace Precinct.						
o Pomona and the R21 corridor.						
o Giloolys and Bedfordview						
o Longmeadow and Linbro Park						
o Buccleuch and Sunninghill						

3.1.4 SWOT Analysis

In any SWOT analysis, strengths and weaknesses represent those variables that are within the sphere of control of an organisation, the so-called internal factors. Opportunities and threats are external and fall outside the control of an organisation either in the short-term or ever.

These are the results of the SWOT analysis done on the Durban Aerotropolis:

Table 3: SWOT Analysis

Strengths	Weaknesses
▪ World Class Airport infrastructure with room for growth	▪ Lack of Long Haul Wide body Air Connectivity
▪ Abundance of available land immediately adjacent to airport and along key transport corridors	▪ High Labour Costs and Inflexible Labour Regime
▪ Critical mass - Umhlanga Town Centre	▪ Lack of Suitable Skills
▪ World Class Road Infrastructure	▪ Development Costs
▪ Pleasant Sub-Tropical Climate	▪ High Taxation Regime
▪ Coastline	▪ Out-dated Rail Infrastructure
▪ Sub-Saharan Africa's Busiest Container Port	▪ Poor Public Transport Infrastructure
▪ An Integral Part of Integrated SIP2 Economic and Logistics System	▪ Cost of Air Freight vs Road Freight to Gauteng
▪ Established Automotive Sector	▪ Lack of Tourism Product Diversity
▪ Support from Provincial and Local Government	▪ Travel Time between Automotive Cluster and KSIA
▪ Large Labour Pool	

Opportunities	Threats
▪ Agro-Processing ▪ Cut Flowers ▪ Aviation Biofuels ▪ Port-Airport Synergy ▪ Retail Tourism ▪ Retail Distribution to SADC region ▪ Growth of Automotive Sector ▪ Electronics ▪ Renewable Energy Technology ▪ Clothing and Textiles ▪ Pharmaceuticals	▪ Port Congestion ▪ Road Congestion ▪ Lack of Adherence to Highest and Best Use of Land ▪ Lack of Coordinated Vision and Purpose Between Key State and Parastatal Role-players ▪ Energy Constraints ▪ Water Scarcity

There is not much that can be done about some of the aforementioned weaknesses and threats, due to them being part of the bigger national problem and/or being external uncontrollable variables affecting the KZN economy. The broader purpose of this Aerotropolis strategy is not to agonise about these factors, but seek to exploit those factors that give the Durban Aerotropolis a competitive edge. One area that stands out for the Durban Aerotropolis is the fact that the airport city is a green field development that has huge opportunities for further development. Other than the site of the new Al Makthoum International Airport in Dubai, none of the competing airport cities identified in the competitor analysis have so much available developable land such as the one around KSIA. Furthermore the air cargo logistics facility at KSIA is the best in Africa, and this is a strength that should be fully exploited.

4 WHERE WE WANT TO GO? (STRATEGIC DIRECTION)

4.1 Strategic Policy Alignment

An attempt to determine the extent of Alignment of the KZN Integrated Aerotropolis Strategy (IAS) with a number of policy frameworks nationally and provincially was carried out. This exercise shows that the Aerotropolis concept is derived from a number of policy frameworks both nationally and provincially as depicted on Figure 3.

Figure 3: Alignment of the Aerotropolis Strategy to provincial and National Policy Frameworks
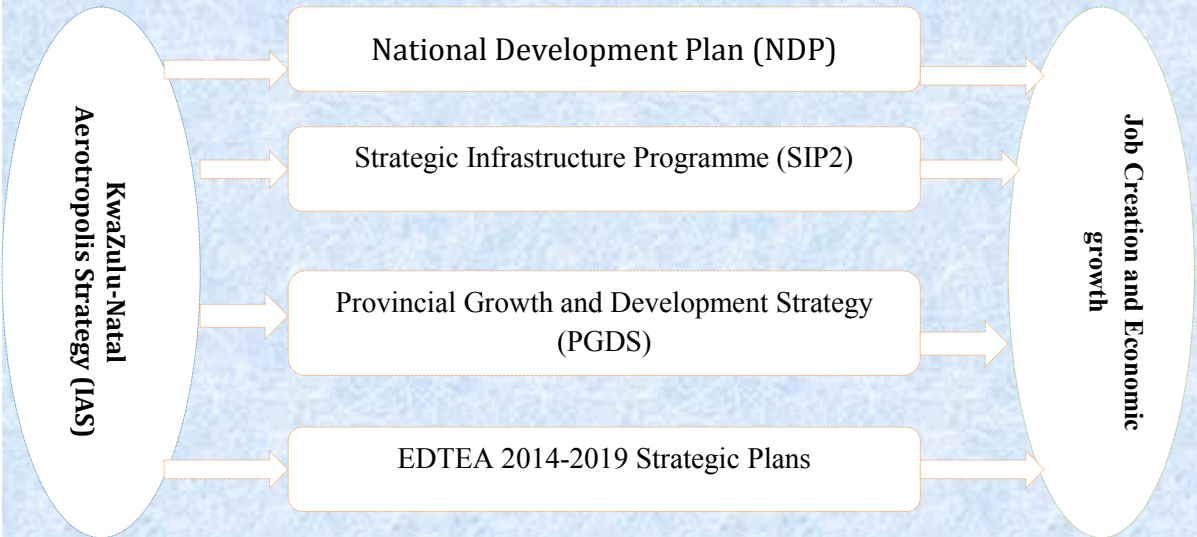
Source: EDTEA 2014

4.1.1 National Development Plan (NDP) and SIP

Nationally, while the NDP does not mention the Aerotropolis concept per se, it strongly brings out and prioritises the Strategic Infrastructure Projects (SIPs). It makes a number of references to the Durban-Free State-Gauteng logistics and industrial corridor (namely SIP2), which is envisaged to play a catalytic role in job creation. The Durban Aerotropolis falls directly under the SIP2's list of priority projects. In addition, the NDP makes reference to a number of transport strategic interventions to increase capacity and logistical bottlenecks to improve the flow of goods and services as well as growing the tourism industry.

4.1.2 Provincial Growth and Development Strategy (PGDS)

The guiding principles of the KZN Integrated Aerotropolis Strategy are contained in two strategic documents that have been published by the KZN Government. The primary one is the Provincial Growth and Development Plan (PGPD), which has been aligned to the National Development Plan (NDP). The second document is the KZN Department of Economic Development and Tourism's 2014 – 2019 Strategic Plan. It is well worth relooking at the strategic goals of these two documents to the extent that they could be impacted by or can influence the Durban Aerotropolis Strategy.

4.1.3 The Provincial Growth and Development Plan

i. **Job Creation:** The Provincial Planning Commission has set a target of creating some 2 million new jobs by 2030. The implementation of the Durban Aerotropolis Strategy will have to quickly identify all job opportunities that can contribute to this target. However, this function is dependent on the availability of specialized skills and the rate at which those skills can be absorbed by the growing economy. The issue of job creation is addressed in the strategic pillars IV: Equitable and Inclusive Growth and strategic lever.

ii. **Human Resource Development:** In this area the PGDP makes reference to the alignment of skills to economic growth and also emphasizes youth skills. This matter is covered in detail in strategic pillar VI below.

iii. **Human and Community Development:** The PGDP seeks to provide an environment that will lift people out of poverty whilst providing safe and liveable conditions with high health standards. Furthermore, this strategic goal of the PGDP also emphasizes food security. Strategic Pillar IV: Equitable and Inclusive Growth is about the equitable share of the economic growth in the Aerotropolis.

iv. **Strategic Infrastructure:** This strategic goal identifies major catalytic projects like the dugout port and the Aerotropolis as some of the economic drivers of future growth. Strategic levers III, V, VII and VIII below are about key infrastructure developments that are required to build a viable Aerotropolis in KZN.

v. **Environmental Sustainability:** The PGDP makes reference to renewable energy and biodiversity. Strategic lever X: Sustainability addresses this topic but goes beyond environmental sustainability.

vi. **Governance and Policy:** This strategic goal is about promoting participative, facilitative and accountable inter-governmental structures. Chapter 9 of this report is about building an efficient governance structure that will oversee the implementation of the Durban Aerotropolis.

vii. **Spatial Equity:** This strategic goal seeks to foster coordination in land development and facilitate integrated land management. Strategic lever III is about coordinated and integrated spatial planning amongst all role players.

4.1.4   The KZN EDTEA 2014 - 2019 Strategic Plan

 In its strategic planning exercise for 2014-2019 period, EDTEA identified the Aerotropolis as one of the pillars to drive economic development in the province, among other programmes that include, inter-alia, Tourism, Maritime, Industrial Economic Hubs/SEZs and Environment (see Figure 4 below).

Figure 4: EDTEA Strategic Programmes 2014-2019
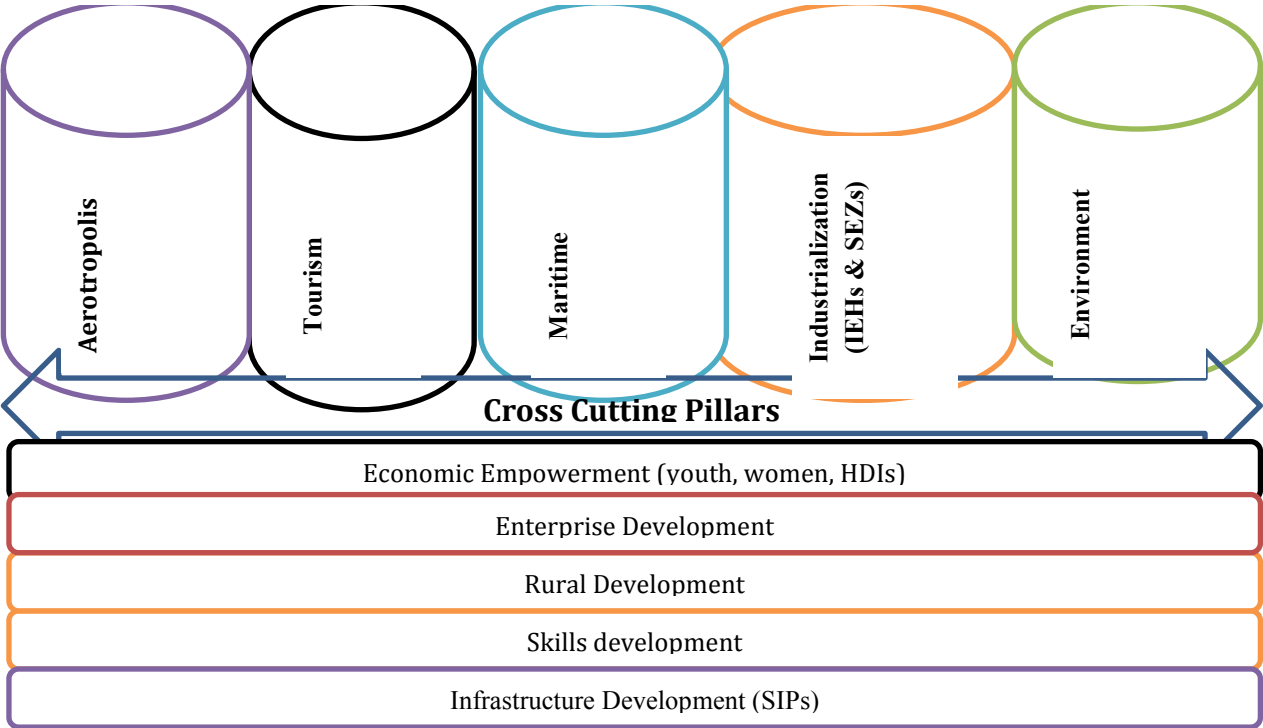
Source: EDTEA 2014

4.2   Strategic Choices for KwaZulu-Natal (Red Ocean versus Blue Ocean)

Red Ocean versus Blue Ocean strategic thinking is about choosing where to compete. A Red Ocean strategy entails going into a crowded market place with a view to gain market share by breaking through clutter. A Blue Ocean strategy on the other hand is about choosing to compete in a completely different market place by creating a dominant position and building barriers to entry by new market entrants. The choice for the Durban Aerotropolis Strategy will employ both Red and Blue Ocean strategic thinking. For instance, in targeting UK tourists, it will be to grow market share of tourists who normally come to Southern Africa for holiday (Red Ocean). In establishing direct air connectivity between London and Durban, the strategy would be to get new tourists who would otherwise not have considered KZN as their tourist destination (Blue Ocean).

There are a number of strategic choices facing the Durban Aerotropolis, however due to limited resources there is a need to prioritise those projects that will have the biggest impact in the shortest possible time. The strategic choices will also need to consider the feasibility

of implanting the chosen strategic roadmap during the period spanning 16 years to 2030. The Durban Aerotropolis strategic choices are now discussed hereunder.

4.2.1 "In-the-Air" Connectivity

At 4.7 million passengers per annum, one would naturally assume that KSIA competes well with Addis Ababa and Nairobi at 5.1 million and 5.8 million passengers respectively. However a quick look at the connectivity of these latter airports reveals a different picture. Addis Ababa is connected to 19 long haul and 52 regional (mainly African) destinations and Nairobi 11 long haul and 47 regional destinations. KSIA is connected to only 4 regional and 1 long-haul destinations. Whilst KSIA has very good passenger numbers, they are mostly domestic from OR Tambo International.

Of the other 7 direct competing airports for KSIA, most of them are highly connected to international and regional destinations. The busiest route out of KSIA is to OR Tambo, which happens to be the 2nd busiest route after the OR Tambo-Cape Town one. The bulk of the KZN international visitors fly into the province via OR Tambo International Airport. This status quo presents a good business case for international airlines to consider flying directly to KSIA.

The strategic choices for "in-the-air" connectivity should therefore be more focused on increasing the number of direct flights from key regional and overseas tourism markets.

4.2.2 "On-the-Ground" Connectivity

Aerotropolis development is about investing in key transit-oriented developments that connect key economic nodes to an international airport. In the case of KSIA, air travellers seek to spend the least amount of time from their place of business, residence, etc. to the airport. For instance, it would not make sense to travel one hour to the airport, only to spend less time flying. This scenario has made the Sandton CBD popular for businesses that seek to minimize travel time to the airport. Being located in this fast-growing business district has given air travellers an assurance that they can be at the airport in a quarter of an hour.

Planning for the development of the Durban Aerotropolis should therefore ensure that travel from most key business districts should not take longer than 30 minutes, even at peak hour. Any uncertainty on travel time will have a negative impact on the general attractiveness of air travel. It is for this reason that a rail line connecting Durban Central or South going through the airport and connecting Northern areas like KwaDukuza should be prioritized, given the uncertainties surrounding road-based travel.

4.2.3 Compete Directly or Compliment OR Tambo?

The Gauteng Province, which is the seat for the busiest airport in Africa (OR Tambo International Airport), is KZN's most important market and defines to a large extent the latter's economic profile. The imports and exports that pass through the Durban port generate huge economic activity for the province of KZN. According to the Transnet SIP 2 project team the port of Durban accounts for over 60% of the country's import and exports. This makes the Johannesburg-Durban corridor the busiest in the country and is of strategic significance.

On the aviation front, the Durban-Johannesburg route is the second busiest in the country. The efficiency of road-based transportation of goods and people between the two cities makes aviation the most competitive form of travel. On air cargo, OR Tambo is a direct competitor to KSIA in that it is easier to transport goods by road to Johannesburg and fly them from OR Tambo, as opposed to sending them from KSIA. On the air passenger side, airlines use OR Tambo as their hub and code share with some of the local operators to send passengers to KSIA. The latter airport has to contend with the attractiveness of OR Tambo as the first entry point into South Africa.

The implied strategies of the SAA and ACSA are that KSIA should be a feeder airport for OR Tambo, and this does not advance the cause for the Durban Aerotropolis development. Notwithstanding this position, KZN should still collaborate on some aspects to develop the Durban Aerotropolis.

4.2.4 Which Sectors are to be prioritised?

The National Development Plan (NDP) highlighted the need for South Africa to ensure that beneficiation occurs within the primary sectors (agriculture and mining) and that value is added to production within the manufacturing sector. This will assist in pushing South Africa onto an accelerated growth path in order to create the levels of employment required to significantly reduce poverty and inequality.

In line with the NDP, the Provincial Growth and Development Plan has highlighted a number of critical interventions that are required in order to create jobs within the Province, not only within the current dominant sectors, but also within sectors with potential to accelerate growth.

The Provincial economy is predominately driven by the manufacturing, finance and business, wholesale and retail, transport and logistics and general government sectors in terms of direct contribution to the total provincial Gross Value Added. As such, the economy is largely reliant on tertiary sectors for expansion of output and employment creation. Guided by national and provincial policy and strategy recommendations, the Province requires a significant boost of investment into the sectors of agriculture (and agro-processing)

manufacturing, tourism, as well as the maritime sector, to enable an environment where sufficient employment opportunities can be created.

In the context of the Durban Aerotropolis, a number of opportunities are available within these key sectors. Given the agricultural potential of the province and the need to reverse the current 'net-importer' status of the province, there are numerous opportunities within agriculture and agro-processing. With regard to the manufacturing sector there is potential to create linkages to existing automotive, textiles, and electronics industries, while taking advantage of new opportunities within green-manufacturing industries. The tourism and maritime sectors are key pillars of the Provincial Department of Economic Development and Tourism, and again present numerous opportunities for linkages within the Aerotropolis.

As such, the key sectors suggested for targeting in relation to the Aerotropolis study are:

- Agriculture and agro-processing
    - Fresh produce
    - Cut, process and packing
- Manufacturing
    - Automotive components
    - Electronics
    - Pharmaceuticals
    - Clothing and textiles
- Tourism (including linkages to Marine and Cruise Tourism)
- Wholesale and retail (linked to tourism and manufacturing)

4.2.5   What Markets Should be Served or Prioritised?

The following countries have been identified as important trading partners based on current trade agreements between themselves and South Africa.

Table 4: Priority Markets for Tourism and Air services

Africa		Europe		South America	North America

- Mozambique
- Swaziland
- Botswana
- Lesotho
- Namibia
	- Zimbabwe
	- Other SADC (Tanzania, Zambia, Angola, Zambia)
	- Other African countries (Kenya, Ethiopia, Nigeria, Ghana, Egypt)
		- Germany
		- UK
		- Netherlands
		- France
		- Iceland
		- Liechtenstein
			- Norway
			  Switzerland
			- Turkey
			  Russia
				- Argentina
				- Brazil
				  Paraguay
				  Uruguay
					- USA
					- Canada

Asia				**Australasia**	
- Japan - China - India		- UAE - Taiwan - Thailand		- Australia - New Zealand	

4.2.6 The Gauteng-KZN Relationship

As mentioned earlier, the Gauteng Province is the biggest and most important market for KZN. However, to the extent that KZN is able to beneficiate the imports and exports that are processed through Durban, Gauteng is an important partner for KZN. Furthermore, to the extent that goods that originate in Durban and trucked to OR Tambo to be flown from there can be diverted to the KSIA-OR Tambo routes; Gauteng would be a partner. However, this option has proven not to be viable in that it costs five times more to send goods by air from KSIA to OR Tambo. The KZN and the Gauteng economies are part of a single integrated unit and this notion is the basis of the SIP2 programs. It is proposed that in terms of Aerotropoli development in these two regions there is need for strong collaboration to ensure that the common good for the country.

5 THE INTEGRATED AEROTROPOLIS STRATEGY (IAS)

5.1 Durban Aerotropolis Strategic Vision

> To develop a **globally and regionally connected**, **viable and sustainable** Aerotropolis that spans the area **covering one-hour trave**l from the KSIA terminal.

The strategic vision of the Durban Aerotropolis is intricately linked to the Provincial Government's 2030 Vision of developing KZN into becoming a gateway to Africa and the world. To contribute to this vision, Durban Aerotropolis will need to be globally and regionally connected. It is further envisaged that by 2030 the King Shaka International will have grown its passenger and cargo airlift with direct connectivity to major international hubs in Africa, Europe, Asia Pacific, South America and North America. Furthermore, connectivity also implies that the Aerotropolis region must also be characterised by efficient ground connectivity. It is also envisioned that by 2030, the airport city covering the area defined on Figure 5 be a fully developed commercial zone. Furthermore, the airport city will be connected to other major economic nodes in the Aerotropolis through efficient roads and rail transport networks by 2030. The Durban Aerotropolis will have become the most competitive metropolitan region in Africa for businesses seeking a unique location, tourists wanting to visit, investors wanting the high return on investment, etc.

The KZN Integrated Aerotropolis Strategy presents a set of guidelines for achieving this vision, and KZN has a first mover advantage in this regard. No other initiatives in the country and the rest of the continent are at this stage of development which is characterised by a developable green field around the KSIA. However, the test of the ability of the Province to achieve this vision will be determined by how it stays ahead of the pack and maintain this comparative advantage for as long as possible.

5.2 KwaZulu-Natal Aerotropolis Footprint

In defining Durban Aerotropolis footprint it is important to differentiate between the Aerotropolis and the Airport city. The actual mapping and spatial planning of the Aerotropolis will be undertaken at the Master planning stage.

The Aerotropolis area contemplated in this report covers almost all of the eThekwini Municipality and some parts of iLembe and uMgungundlovu municipalities. The defining criterion for the catchment area is the concept of **one-hour travel distance** from King Shaka International Airport (KSIA). The Aerotropolis consists of two elements, the 'inside-the-fence' and 'outside-the-fence', where the former refers to the airport city and the later defines activities that take place outside the airport city or the broader Aerotropolis region.

The footprint as shown on Figure 5 shows that Durban Aerotropolis cuts across a number of municipal boundaries. The aim, therefore, is to ensure that people can travel with easy between the airport and various destinations (nodes) and reduce the travel time. These nodes could be places such as Howick, Pietermaritzburg, Kranskop, Eshowe, and Mandini and to some extend Port Shepstone. For this to be achieved there has to be efficient ground connectivity characterised by speed and agility. As such, for Durban Aerotropolis to work there is need for government to invest substantially in road and rail infrastructure to achieve ground connectivity and widen KSIA catchment area. The Aerotropolis boundary defined on figure 5 is based on the concept of one hour travel radius.

Figure 5: Durban Aerotropolis Foot print- One hour travel Radius
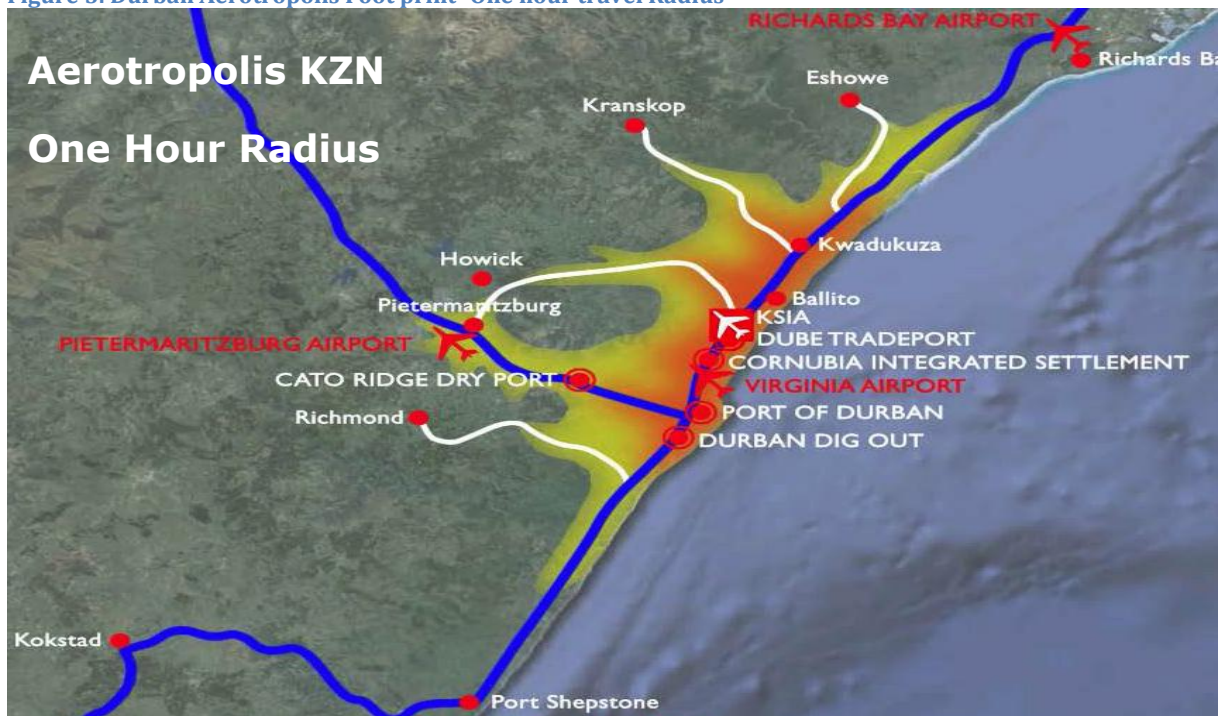
5.3 The Airport (Dube) City

It is generally believed that in the 21st century airports are much more than aviation infrastructures. They have become multimodal, multifunctional enterprises generating considerable commercial development within and well beyond their boundaries. The Airport city is characterized by commercial functions locating on and immediately around major airport sites. The airport city is, therefore, the nucleus/epicenter of an Aerotropolis characterized by a hive of activities where the city grows outward to various nodes and corridors. As defined by Professor Karsada, commercial functions in the airport city could be in the following form:

- **Airside-** Shopping mall concepts merged into passenger terminals
    - Retail (including streetscapes & upscale boutiques)
    - Restaurants (increasingly higher-end and themed)
    - Leisure (spas, fitness, recreation, cinemas, etc…)
    - Culture (museums, regional art, musicians, chapels)

o   Dube Trade Port (DTP)
▪ **Landside**
o   Hotels and entertainment
o   Office & retail complexes
o   Convention & exhibition centers
o   Free trade zones & SEZs
o   Time-sensitive goods processing

This is what is commonly referred to as the **inside-the-fence** activities of the Aerotropolis. In the case of KZN, the catchment area of the airport city will be approximately a 14 square kilometre radium stretching from Umhlanga to Umhlali river, north of ballito and extending east west from the Ocean to the western part of R102 (**see Figure 6**). The Aerotropolis Master Plan will clearly map out this area including the land use plan.

Figure 6: KwaZulu-Natal Airport (Dube) City Catchment Area

Source: DTP Master plan

5.4   How to Get There? (Strategic Roadmap)

The strategic roadmap outlined in this section is the culmination of having articulated the KZN's status quo through the situational analysis and having considered strategic choices available for the Province.

Figure 7: Alignment of Pillars, Lever, Goals, Strategic Objectives and Interventions

Pillars	Levers			
Support	7. **Place Marketing** 8. **Advanced Telecommunications Infrastructure** 9. **Infrastructure and Engineering Services** 10. **Sustainability**	Strategic Goals	Strategic Objectives	Interventions
Foundational	1. **Growing Air Services and Connectivity** 2. **Integrated & Coordinated Spatial Planning** 3. **Equitable and Inclusive Growth** 4. **Business Growth and Development** 5. **Knowledge Support and Human Capital** 6. **Integrated Multimodal Transport**			

The 2014-2019 Integrated Aerotropolis strategy is built around two pillars namely foundational and support, which are further decomposed into ten strategic levers as shown on Figure 7, the ten strategic levers formed the basis of Durban Aerotropolis readiness assessment and international benchmarking. The levers are not only unique to KwaZulu-Natal but have also been applied in a number of countries as per the findings of the international best practice section. Each lever contributes a goal. Strategic objectives are then defined for each specific goal. The strategy further articulates the interventions necessary to achieve all the set of strategic objectives.

5.5 Aerotropolis Foundational Pillar

The following strategic levers have been identified as being Foundational in developing a viable Aerotropolis:

- Growing Air Services and Connectivity;
- Integrated and Coordinated Spatial Planning; and
- Equitable and Inclusive Growth.

5.5.1 Strategic Lever I: Growing Air Services and Connectivity

The South African National Department of Transport (NDoT) is the custodian of, inter alia, all air transport policies and takes a lead on all negotiations relating to air traffic rights or Freedom of the Air[2]. The Department of Public Enterprises, which is responsible for the three national carriers (Mango, SAA and SA Express), has vested interest in these negotiations and therefore normally attends all negotiations led by NDoT. In all these negotiations, NDoT is always guided by the need to comply with the Yamoussoukro

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[2] See Annexure 13.3

Declaration[3] and also to protect the interests of the South African and African aviation industry against unfair competition by international airlines.

The Case for KSIA

Unlike some international airport operators, the Airports Company of South Africa (ACSA) does not have a strategy or plan to negotiate with various international airlines for the nine airports it owns and manages. This function is left to the NDOT to facilitate as part of its negotiations with civil aviation authorities of various countries. At the recent forum on air services negotiations (ICAN 2013), it was clear that all negotiations are only centred on OR Tambo International Airport, and airlines are granted further rights to fly to Durban or Cape Town only after they have exhausted their allocated frequencies at OR Tambo. For instance the use of these two airports by Emirates Airlines, was not out of choice but because the airline had exhausted its allocated frequencies at OR Tambo.

The implied positioning of the two airports (Cape Town and KSIA) by NDOT is that they be feeder airports to support the air services at OR Tambo. It is no coincidence that this strategy of NDOT is in line with the "hub-and-spoke" strategy of the South African Airways. The competitor analysis done earlier revealed that the main shortcoming of KSIA is its lack of good connectivity to regional and major international hubs. Airports like OR Tambo, Jomo Kenyatta, Cairo and Addis Ababa have very good connections to the biggest hubs. Airlines still prefer to use OR Tambo as their hub and code share for backward distribution to other airports like KSIA.

Potential New Routes for KSIA

United Kingdom is still the largest long-haul tourist market for South Africa at 442,000 (+1%) arrivals per annum, followed by USA at 349,000 (+7%), Germany 304,000 (+14%), China 151,000 (+15%), France at 134,000 (+10%), Australia at 125,000 (+4%), Netherlands at 122,000 (+4%) and India at 106,000 (+6%)[4]. The percentages in brackets are increases from 2012 to 2013.Within the continent the leading markets, which can contribute to KSIA air services are SADEC: Zimbabwe 1,976,000 (+7%), Mozambique 1,117,000 (+1%), Botswana 537,000 (+19%), Namibia 201,000 (+11%), Zambia 182,000 (+7%), Malawi 142,000 (+22%), Nigeria 73,000 (+15%), Angola 57,000 (+20%), Tanzania 38,000 (+7%), Kenya 36,000 (+8%) and Ghana 27,000 (+19%).

The European Union remains South Africa's biggest tourism market and also happens to be the nation's biggest trading partner, followed by China and USA. India, Nigeria, Angola and Mozambique also feature in the top 10 trading partners of South Africa.[5]

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3 See Annexure 13.3

4 Statistics SA for 2013

5 European Commission Trade Report 2013

Based on the statistics above the most promising long-haul routes with very good growth prospects for KSIA are United Kingdom, Germany, USA, China and India. Within the African continent the priority markets should be Zimbabwe, Botswana, Namibia, Zambia, Nigeria and Kenya.

KZN Regional Airports

A number of Regional Airports are located within the KZN Province and the KZN Provincial Treasury is currently championing a Regional Airports Strategy focused upon the development of a Regional Airport Network and Feeder Route System linking to KSIA (see Situational Analysis report, Section 4.2.5).

An attempt was made to incorporate the Regional Airports Strategy within the KZN Integrated Aerotropolis Strategy (KZN IAS). Despite the fact that the two strategies enjoy an overlap in relation to their shared focus upon the aviation sector in KZN Province, it should be noted that in many spheres their strategic thrusts are divergent and their directions are competitive rather than complimentary. Examples of this are as follows:

- The international benchmark for a travel time radius beyond which it starts to become economical to fly is 3 hours. All of the KZN regional airports, perhaps with the exception of Newcastle, Dundee and Vryheid, are located within 3 hours travel time by road from KSIA, calling into question the long term sustainability of scheduled air links between the regional airports and KSIA;

- The passenger and cargo demand that does exist out of many of the KZN Regional Airports is for scheduled or charter air links to O R Tambo International Airport (ORTIA). Development of the regional airports to satisfy this demand has the potential to support the bypassing of KSIA and the diversion of air traffic originating from or terminating in KZN to ORTIA, working directly in competition with the strategic goals of the KZN IAS;

- ACSA is reluctant to accommodate smaller aircraft using the single runway system at KSIA due to a concern that the slow approach speed of smaller aircraft is a potential constraint upon runway capacity, a scenario that would potentially have adverse consequences on the achievement of the strategic goals of the Durban Aerotropolis Strategy.

IAS identifies the following interventions that align KZN regional airports with the Aerotropolis:

- Identify passenger and cargo latent demand for air links to KZN regional airports, prioritising infrastructure upgrades at airports that will support KZN IAS strategic goals
- Develop regional airport infrastructure to support Aerotropolis initiative
- Identify developments that should take place in regional airports to support the Aerotropolis

STRATEGIC GOAL 1 - ENHANCED AIR SERVICES AT KSIA AND ITS CONNECTIVITY TO MAJOR INTERNATIONAL AND CONTINENTAL HUBS FOR BOTH CARGO AND PASSENGER MOVEMENTS.

Strategic Objective 1.1 - To develop KSIA into becoming an alternative air passenger hub for South Africa with direct connectivity to major hubs in Sub-Saharan Africa, Europe, Asia, North and South America.

(a) **Proposed Interventions – Passenger Air Services:**

- Escalate the KZN air services and route development agenda to higher government forums like MIN-MEC's on transport, tourism, trade and investments and economic development.
- Influence the granting of future rights that will benefit KSIA like those granted to Emirates for the KSIA frequencies.
- Ensure that the type of air traffic rights granted to the civil aviation authorities where those airlines are domiciled guides all KZN airline negotiations.
- Ensure full KZN representation and participation at all future air services negotiations led by NDoT.
- In improving relations with the national carriers, take full advantage of the forum initiated by the office of the MEC for EDTEA with the Ministry for Public Enterprises and the South African Airways.
- Use the hosting of World Routes 2015 in Durban and other related events to reach out to senior representatives of targeted airlines.
- Continually lobby airlines at industry shows like World Routes, IATA Slot Conferences and through regular visits to their headquarters.
- Work with major national and international tour operators (e.g. Tourvest, Thompson's and Thomas Cook) to develop travel packages in conjunction with the airlines serving KSIA and future potential ones.
- Ensure that KZN takes an integrated approach to airline negotiations that will include input from TIKZN, TKZN, Durban Tourism, Durban Investment Promotion Agency, etc.
- Develop an integrated airlift strategy and align it to that of NDoT and aviation policies.
- Establish a Route Development Fund and a Comprehensive Airline Incentive Program to grow air services at KSIA.
- Develop joint marketing programs around destination marketing between airlines and KZN entities, viz., DTP, TKZN, TIKZN, DKZNCB, City of Durban, etc.
- Investigate potential solutions, both infrastructural and operational, which will allow for the sustainable operation of Part 1356 air services from KSIA without constraints on runway capacity.

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[6] Deals with aircraft operating requirements under air services regulations

(b)   Proposed Interventions – Cargo Air Services:

▪ Take advantage of the relaxation of air traffic restrictions for the airlines that seek 5th freedom rights for cargo.

▪ Identify passenger and cargo latent demand for air links to KZN regional airports, prioritising infrastructure upgrades at airports that will support KZN IAS strategic goals.

▪ Influence (through NDoT) the granting of 5th Freedom traffic rights for cargo, like those recently granted to Qatar Airways for Durban and Cape Town.

▪ Identify and classify the freight types to grow the air cargo industry.

▪ Identify and establish infrastructure required to support the air cargo industry.

▪ Identify, analyse and quantify the logistics requirements to grow air cargo (i.e. size of warehouse, location of warehouse relative to airport, security arrangements, etc.).

▪ Target key express freighters like FedEx and UPS to establish hubs at KSIA.

▪ Analyse the logistics requirements for express freight (e.g. warehousing, handling equipment, security, x-ray scanners, etc.) to easy logistical bottlenecks.

▪ Establish an advanced documentation process in the Aerotropolis.

(c) Regional Airports: To the extent that these airports support the growth of air services at KSIA, the following interventions are proposed:

▪ Premium passenger tourism charter services linking KSIA to northern and southern KZN (air links to Margate and Mkuze Airports have been mooted). A study to determine the demand for such services is recommended.

▪ Potential air links between KZN regional airports and KSIA to serve high-value cargo markets linked to the Industrial Economic Hubs initiative. A study to determine the demand and location for such air links is recommended.

5.5.2   Strategic Lever II: Integrated and Coordinated Spatial Planning

There exists a dynamic relationship between transportation (being air, road or rail based) and spatial planning. Due to the recent shift in metropolitan planning towards compact, more environmentally sustainable and more equitably accessible cities, the effective and functional integration of land use and transportation planning is becoming increasingly important to achieve development solutions, which will facilitate and contribute towards liveable and more efficient cities. This implies that the integration of transportation and land use planning should assist aspects such as strategic densification, and transit oriented development in development proposals and growth strategies.

EThekwini Municipality's Northern Urban Development Corridor (NUDC) plan states as one of its development principles that "fully integrated multi-modal transport systems must be promoted through the integration of land use and transportation (e.g. densification[7])[8]. The

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[7] Densification refers to optimum land use especially residential.
[8] NUDC – Phoenix INK LAP v3.1 Final – 18 February 2011, p6

Figure 8 below sets out Minimum Density targets for various spatial elements, including nodes "Within and in proximity to Rail or Mass Transit Stations".

Figure 8: Density Targets for NUDC

Spatial Element	Minimum Density	Applicability
Within and in Proximity to Sub-Metropolitan Nodes	Net Density[5] of 80-150du/ha	Bridge City
Within and in Proximity to Local Urban Nodes	Net Density of 40-80du/ha	Newlands Town Centre KwaMashu Town Centre Phoenix Town Centre
Within and in Proximity to Neighbourhood Nodes	Net Density of 40-80du/ha	KwaNozaza Emtshebheni Dube Village Lindelani MR577 (Dumisani Makaye Drive) /Ntuzuma Main Rd
Within and in Proximity to Rail or Mass Transit Stations	Net Density of 80-150du/ha	In the residential areas that are within 2 km proximity to major public transport facilities and within 400-800m of all existing and proposed rail stations and sub-metropolitan bus or taxi ranks
Within and in Proximity to Development Spines	Net Density of 80-150du/ha	In the residential areas that are within 2 km of the R102 and other recognised Development Spines
Other Areas Urban Suburban Rural	Net Density of 40-80 units/ha Net Density of 15-40 units/ha Net Density of 1-15 units/ha	
Interface with UDL and Environmentally Sensitive Areas	Net Density of 5-15du/ha	Within 400m proximity to the Urban Development Line — must take cognisance of local context

Source: NUDC – Phoenix INK LAP v3.1 Final – 18 February 2011, p40

Transportation decisions affect land use patterns, and the resulting economic, social and environmental impacts. These include direct impact on land use for transportation facilities, and indirect impact caused by changes to land use development patterns. Transportation provides a means of access not only from home to activity, but also to opportunities. Furthermore, transportation plays a major role in sustaining development, whilst development directly affects transport demand.

Growing air connectivity has resulted in the increased interconnectivity of cities across the globe and in increasing economic competition between cities and regions. This has an effect on the spatial planning of a region as it becomes important for a region to position itself in terms of its regional distinctiveness. Thus, regional economic development can be seen as the focus for trade between regions. The result of the above-mentioned is that the agglomeration of economies plays an important role in driving the competitive advantage of a region.

In a global economy – which boasts rapid transportation, high-speed communications and accessible markets – one would expect location to diminish in importance. But the opposite is true; as research has shown that different business sectors have different locational needs to be close to the airport. Business sectors can be divided into the following categories in terms of their locational needs:

- Businesses that locate at the airport itself (i.e. car hire companies, airport services, etc.);
- Businesses that locate immediately adjacent to the airport (within 5-10km) (i.e. air cargo, freight forwarding, logistics, etc.);
- Businesses that locate in close proximity to the airport but also some distance away (i.e. warehouses, shipping agents, container services); and
- Businesses that locate at any distance from the airport (travel agents, hotel accommodation, conference venues, etc.).

The area of influence can define the footprint of the Durban Aerotropolis by means of a 1-hour travel distance from KSIA and complimentary land uses. Therefore the Durban Aerotropolis consists of:

- The airport itself;
- The core area around the airport (Dube Trade Port);
- Corridors leading up to the airport (N2);
- Activity / mixed nodes that are in close proximity to the airport;
- Residential neighbourhoods;
- Economic Value Adding and Economic Support Areas;
- Agricultural Investment Areas;
- The major freight / cargo terminals / ports (SIP 2 Projects);
- Other airports: Virginia and Pietermaritzburg;
- Developing edge nodes like Umhlanga Ridge, and
- Tourism attractions.

STRATEGIC GOAL 2: TO ENSURE/ENABLE INTEGRATED AND COORDINATED SPATIAL PLANNING BY ALL KZN GOVERNMENTAL STAKEHOLDERS AT LOCAL, DISTRICT AND PROVINCIAL LEVEL.

Strategic Objective 2.1: To   inform, improve and guide development interventions with a view to promoting spatial concentration.

Proposed interventions:

- **Map out the Aerotropolis Core Area** - **Figure 10** shows the delineation of the Aerotropolis Area in terms of a 30-minute travel distance. In order to indicate where infrastructure investment will be targeted and where land use applications are to be expedited in order to stimulate a favourable environment for private sector investment, a focus area (Aerotropolis Core Area) within the 30min travel distance boundary needs to be demarcated. A point of departure in this regard may be the evaluation of the suitability of the study area which formed the focus of the Aerotropolis KZN master plan, prepared by DTPC and Tongaat Hulett. This area spans a 30 km corridor from Umhlanga and Cornubia in the south to Compensation and Ballito in the north and Verulam and Tongaat in the west (see Figure 10 below).

Figure 10: Current and proposed nodes as identified in the various policy documents
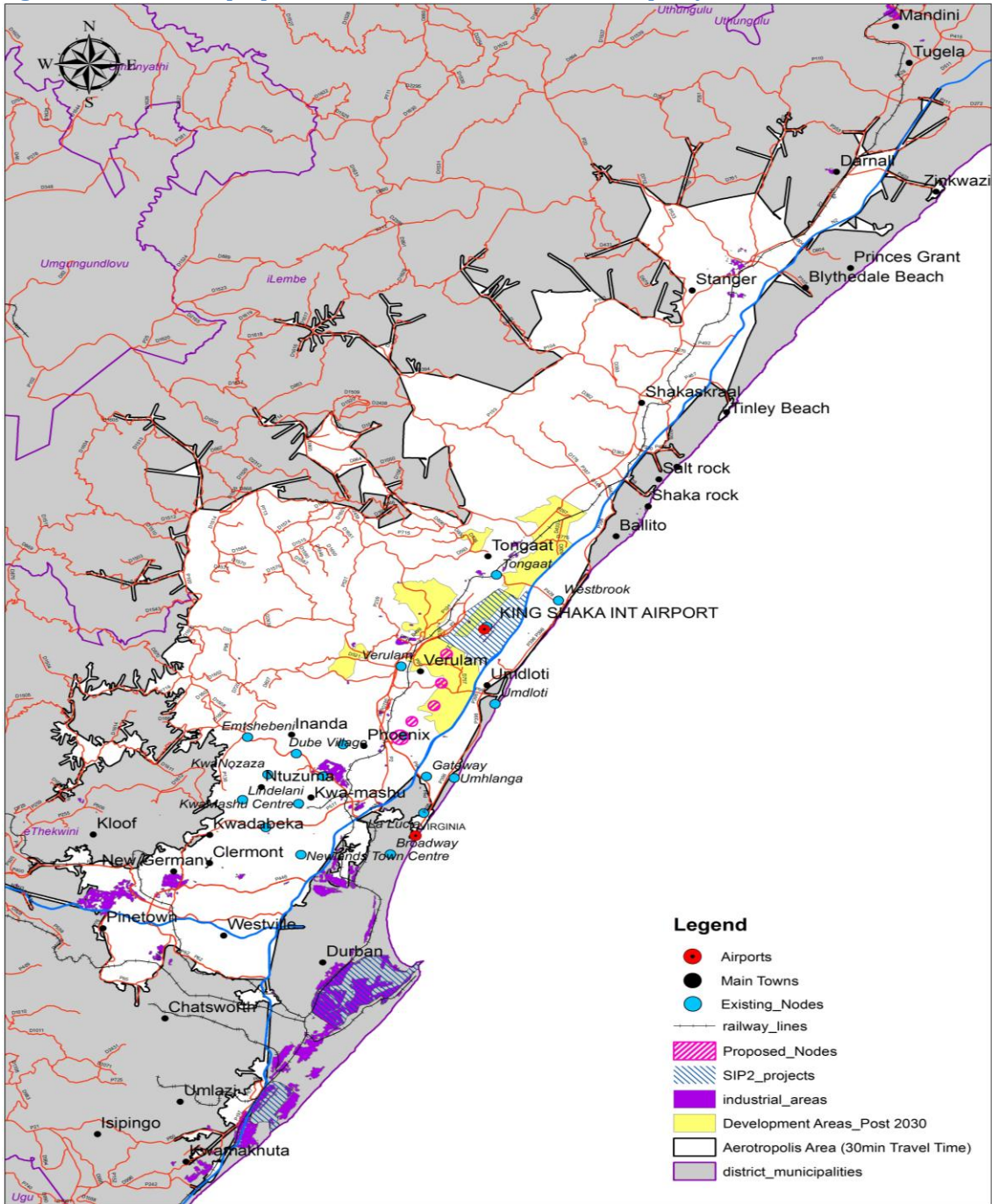
Figure 11: Aerotropolis KZN Master plan

- **Identify, analyse and classify current destinations/nodes within the Aerotropolis -** Figure 12 indicates the current and proposed nodes as well as the future growth areas within the Aerotropolis Area. In order to prioritise infrastructure investment, ensure integrated development and establish if the current status of nodes, proposed nodes and urban extension areas are still valid, it is crucial to identify, analyse and classify current destinations/nodes (i.e. areas of work, retail, entertainment, etc.) within the Aerotropolis Core Area.

- **Identify, analyse and quantify the existing transport linkages/corridors, which relate to the nodes. -** Figure 12 indicates the current and future development spines in the eThekwini Municipality. Current and future development spines for the iLembe District Municipality need to be identified. It is important to identify, analyse and quantify the existing transport linkages/corridors which relate to the nodes (existing, new, modified and proposed) to ensure an integrated transport network and functional corridors.

Figure 12: Current and future development corridors as per various policy documents
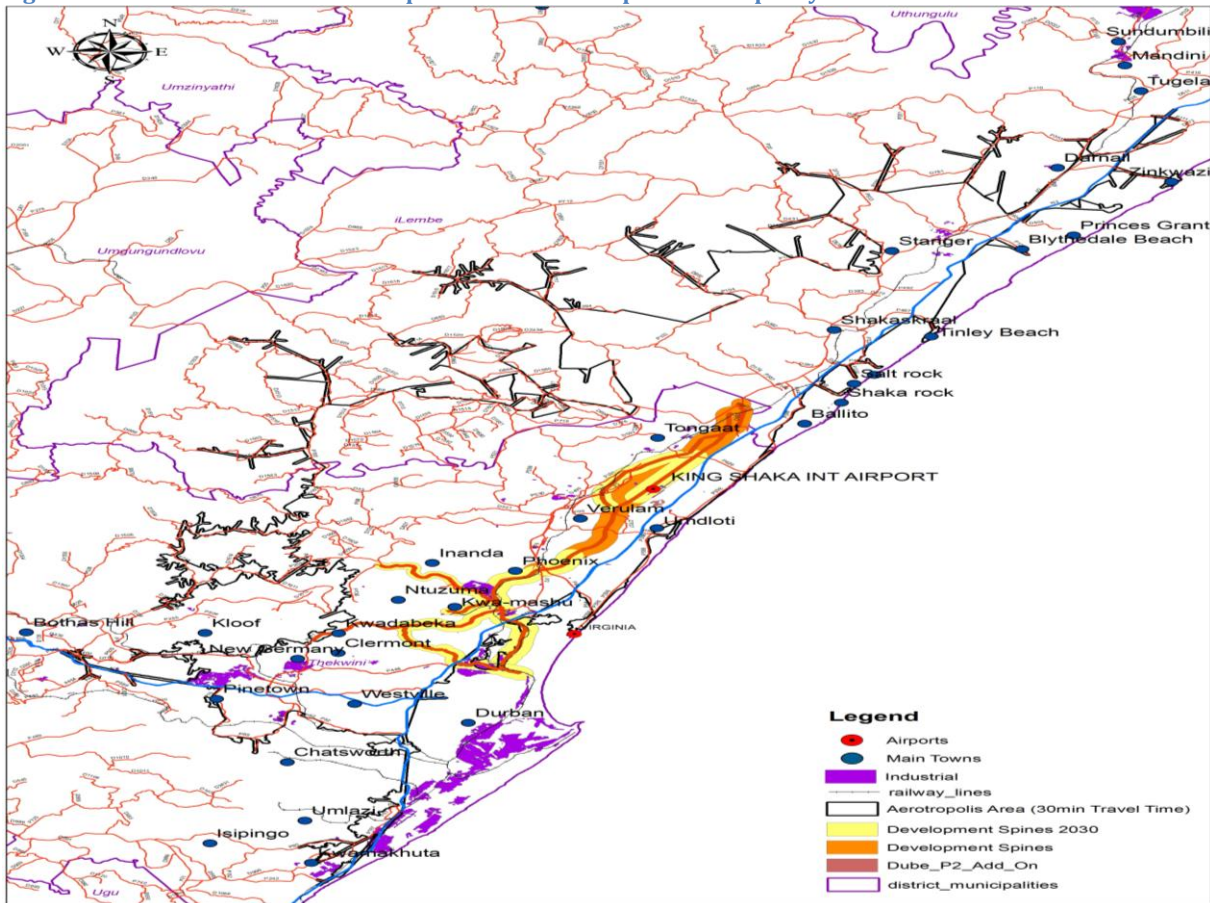
- **Identify, analyse and quantify the density zones within the Aerotropolis Core Area and analyse how they relate to the existing nodes and corridors.** Through this process, areas that are under development pressure and favourably located for development and investment within the Aerotropolis Core Area can be identified and opened up for growth.
- **Identify, analyse quantify and modify nodes in the Aerotropolis Core Area.** The above-mentioned will ensure that nodes, as identified in the various municipal areas, relate to each other and will contribute to the clustering of development at these nodes. This will entail the identification of alternative nodes and corridors within the Aerotropolis Core Area and Region.

Strategic Objective 2.2: To guide cross-sectoral project implementation and integration.
Proposed interventions:
- Identify spatial opportunities and development priorities along corridors and at strategic nodes within the Aerotropolis Core Area.
- Link the need for effective land use, road network and mobility integration with practical spatial principles and identify spatial opportunities and development priorities in accordance with the identified corridors and the strategic development nodes.
- Follow a "no-boundaries" approach in the Aerotropolis Region to accommodate the one (1) hour travel time.

- Set-up a "cross-border" steering committee.
- The Department of Agriculture, Forestry and Fisheries, need to be consulted (by the governing body of the Aerotropolis) once the Aerotropolis Core Area has been identified to ensure that the land that is affected by the Subdivision of Agricultural Land Act, Act 70 of 1970, are isolated for development.
- Prepare a Regional Spatial Development Framework (which includes a Road and Public Transportation Plan, Service Infrastructure Focus and Provision Plan as well as an Open Space Plan) in line with the Spatial Planning and Land Use Management Act, Act 13 of 2013 (SPLUMA) for the Aerotropolis Core Area (this will assist in aligning all current Local Area Development Plans and Spatial Development Frameworks within the various municipal areas into an over-arching plan for the Aerotropolis Core Area).
- The purpose of the Regional Spatial Development Framework is to provide a broad strategic guide for the various municipalities and need to be incorporated into the Regional Spatial Development Frameworks of the various municipalities, which are located within the Aerotropolis Core Area.

Strategic Objective 2.3: To create a sustainable urban environment which is functional and supportive in terms of Transit Orientated Development and the various transport modes active within the Aerotropolis Region.

Proposed Interventions:
- Intensify the density of existing built-up areas through infill development and setting growth limits.
- Identify areas where the fringes of the built-up areas are to be extended to ensure that there is enough land to accommodate development and people.
- Compact land pattern through medium-high densities and the promotion of mixed land use.
- Cluster economic activity around nodes and corridors.
- Improve vehicular access.
- Prioritise public transport modes.
- Prioritise infrastructure (bulk services as well as transport) investment in the Aerotropolis Core Area.

Objective 2.4: Formulate guidelines and proposals for the densification, diversification and intensification of land uses along appropriate movement routes and within strategic nodal points

Proposed Interventions:
- Identification of Economic / Industrial hubs within the Aerotropolis Core Area.
- Identify optimal land use mix to encourage clustering (this requires the identification of land use types that are to be encouraged within the Aerotropolis Core Area and where these land uses are to be promoted).

- Identify opportunities for strategic densification and infill development within the Aerotropolis Core Area, particularly along public transport corridors with direct linkage to KSIA.
- Evaluate the suitability of the NUDC Density Targets (see Figure 13) for implementation across the broader Aerotropolis region.
- Develop urban design guidelines governing land use mix, public space design and layout, walkability and movement for the densified corridors.
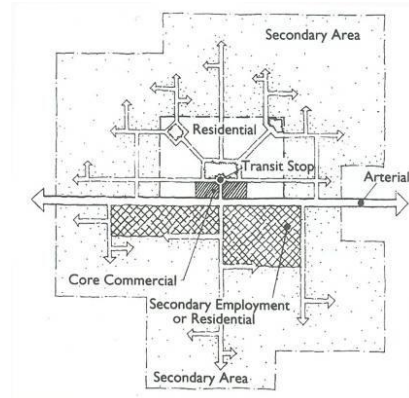
Figure 13: Indicative Spatial Typologies for Transit-Oriented Development Nodes
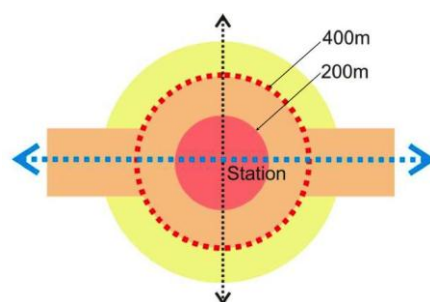
5.5.3 Strategic Lever III: Equitable and Inclusive Growth

South Africa faces three critical structural challenges, namely, poverty, inequality and unemployment. These challenges are not mutually exclusive, and efforts to combat these social ills generally target all three. Within KwaZulu-Natal, 60.2% of the population falls within the upper-bound poverty line (less than R577 per month), with 33% of the population also falling below the food poverty line (less than R305 per month). Within the food poverty line, 26% of the total national population is attributable to KZN, the largest in the country. In addition, the Gini Coefficient[9] has increased from 0.59 in 2009 to 0.64 in 2012. This highlights the high levels of inequality and poverty that plague the Province.

The PGDS highlights that "the highest concentration of population densities are found within the eThekwini and Msunduzi complexes", indicating two of the most densely populated urban areas fall within the Aerotropolis area of influence. Additionally, the PGDS notes that "the most densely populated areas described above, also represent the areas where the highest number of social challenges including lack of access to services such as education, markets, health care sanitation, roads, transportation and communications occur." This supports the need for the anticipated economic benefits of the Aerotropolis to positively impact on those in the high density urban-areas, where the greatest level of poverty and inequality exists.

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[9] The Gini Coefficient is a measure of income inequality ranging from perfectly equality (0) to total inequality (1).

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When considering large-scale developments such as an Aerotropolis, and particularly within the context of South and Southern Africa, a key objective must always be to ensure that the development is able to create employment within marginalized communities, to level income disparities, and ultimately reduce poverty. Given that a large part of the province's population is located within rural or traditional settlements, and much of the large-scale economic development occurs within relatively urban areas, development needs to be able to bridge the current economic divide.

The National Development Plan identifies the following two key outcomes relating to equitable and inclusive growth:
- Decent employment through inclusive growth; and
- Skilled and capable work force to support an inclusive growth path.

It is crucial that the Aerotropolis development creates an inclusive growth path, by ensuring that decent employment is generated, and that skills and the capacity of the Provincial workforce are further developed and strengthened. A number of key aspects need to be considered in relation to this. These are geographic inclusivity, accessibility, the quality of work opportunities, and small enterprise development.

A key principle in driving equitable and inclusive growth is geographic inclusivity. It is no coincidence that the marginalized communities are still the same as those that were targeted for exclusion by the Apartheid regime, and after almost 20 years of democracy meaningful change is yet to come. In addition to existing interventions on inclusivity, there is a need to take a bold step that will see the reversal of the effects of Apartheid. Such steps should include not only bringing the majority of the people closer to economic opportunities, but also taking such economic opportunities to them.

The area of influence of the Aerotropolis reaches far beyond the King Shaka Airport and DTP. The hinterland comprises numerous communities, many of which are rural or peri-urban areas. The opportunities that will be generated by new investment into the region must be guided by the principle of geographic inclusivity, to ensure that decent employment and skills are created for the marginalized communities that fall within the area of influence. In addition to this, the principles of accessibility and quality of opportunities become important. Accessibility relates to the provision of an integrated transport network that is inclusive and allows access to opportunities within the Aerotropolis, and accessibility within the Aerotropolis. This speaks directly to Lever VI - Integrated Multimodal Transport Networks.

With regard to generating employment opportunities, the principles of 'quality of opportunity' and 'small enterprise development' are crucial. On the one hand, employment opportunities will be created through new and expansionary investment. On the other hand,

various opportunities will be created for small enterprises, particularly small, micro and medium B-BBEE enterprises, within key sectors.

In order to take advantage of the anticipated opportunities for the inclusion of marginalized communities, to create decent employment, and grow small and B-BBEE enterprises, supply and value-chains need to be deepened to ensure that local economies and employment are stimulated. This requires the value-adding of commodities within the Aerotropolis, deepening of logistics supply chains, and creating sustainable economic systems, and relates closely to Strategic Level IV - Business Growth and Development.

STRATEGIC GOAL 3: EQUITABLE AND INCLUSIVE GROWTH THAT WILL ADDRESS THE TRIPLE CHALLENGES OF INEQUALITY, UNEMPLOYMENT AND POVERTY AS IDENTIFIED IN THE NDP.

Strategic Objective 3.1: To bridge the economic divide that is evidenced by the huge gap between the rich and the poor.

Proposed Interventions:
- Programme for incorporation of emerging enterprises (new entrants and SMMEs) into key clusters.
- Develop a programme to leverage off existing state-owned entity offers such as Ithala, SEDA, etc.
- Develop a programme to leverage off existing national government programmes like the EPWP, Jobs Fund and the Employment Tax Incentive schemes.
- Develop an integrated programme that addresses the economic transformation.
- Enterprise development programme that would focus on raising skills levels for start-ups and the creation of business opportunities for SMME's, particularly those in the marginalized communities (including an SMME Skills Plan).
- In coordination with the National SEZ implementation programme, identify relevant incentives for SMMEs and key and prioritised business clusters in townships and rural areas that can qualify for available SEZ incentives.
- Develop an up skilling and retraining programme to increase labour absorption rate in all new investments.
- Develop an Aerotropolis SMME Participation Plan.

5.5.4 Strategic Lever IV: Business Growth and Development
The Provincial Growth and Development Strategy and Plan (PGDP) highlight the importance of the agricultural sector as a major driver of economic development and job creation within the Province. It was noted within the Strategy "If appropriately harnessed, the agricultural sector in KZN has the potential to create a substantially higher number of jobs in a shorter time frame. Over the short to medium term, the agricultural value chain can support labour-

intensive absorbing activities, generating large-scale employment. This in turn contributes towards addressing food security and enabling sustainable livelihoods."

The Province does however face significant challenges regarding agricultural expansion. Some of the major challenges relate to access to land, funding for infrastructure, and international competition. Specific interventions are identified within the PGDP and are aimed at addressing some of these challenges, including support to small-scale farmers, value-adding and marketing within the sector, expansion of irrigation schemes, water-use efficiency, resolution of land claims, and protection and rehabilitation of agricultural resources.

In relation to the Aerotropolis, the Province's focus on value adding and marketing within the Agricultural Sector is important. Given that KZN is a net importer of agricultural commodities, the majority of agricultural commodities produced locally will continue to serve the domestic market. Many of these commodities are also produced in large volumes and are of low value (such as sugar and bananas). As a key tactic of the Aerotropolis, the Province must ensure value-addition and niche market focus. Specifically, the cutting, processing and packaging of higher-value niche market commodities for export such as table-ready vegetables and sub-tropical fruits, mixed and packed fruits and vegetables (fruit salads, mixed vegetables), as well as seeds and nuts. Additionally, the Province has ample potential to expand on the market for essential oils as well as indigenous plants and medicines.

In addition to the commodity-driven opportunities that exist, a major thrust within the Agriculture sector is ensuring that research and innovation occurs to support and enhance growth and new opportunities within the sector. Although not reliant on air-freight and being directly within the core of the Aerotropolis, research and development activities can be located within the wider Aerotropolis zone, given the location of telecommunication infrastructure within the DTP, such activities would be ideally suited.

The Aerotropolis platform must be effectively engineered to support the production of electronic goods in KwaZulu-Natal and supplied to emerging African markets. At present, there are numerous local small and medium scale electronic and especially component manufacturers based within the Aerotropolis catchment area from which initial production levels can be leveraged into 'agile manufacturing'.

The manufacturing and knowledge economy is intrinsically interlinked, with technology playing a major role in the ability of producers to innovate for new products and new markets. Actively pursuing supporting mechanisms for the development of bespoke manufacturing solutions, destined for African markets is a key tactic that the Aerotropolis can help unlock to the KZN economy. Opportunities for the deepening of manufacturing of

specialist electronics (electronic control units) within automotive and heavy machinery can be enhanced by the growing African market for these goods; the Aerotropolis provides a nexus of market opportunity meeting domestic capability.

South African telecommunication firms have largely penetrated the African continent as network providers, while international firms have remained the majority of handset suppliers. Opportunities for repairs and servicing of these handsets could be centrally located within the Durban Aerotropolis, as part of a fly in service. Eventually the development, manufacturing and after-care facility for handsets designed for the African market could be realized locally.

Business growth and development encompasses both existing businesses and emerging businesses in KZN as well as the deepening of investment. Broadening existing businesses' footprint locally, regionally and through the available air platform internationally, as well as the creation of a meaningful space for emerging businesses, is a critical pillar of the Aerotropolis concept. Job creation can only be realized through the strengthening of local businesses and the encouragement of new business formation in the key associated sectors of manufacturing, agro-processing, transport and logistics, and the green economy. These sectors are also viewed as key areas of intervention identified in PGDS and PGDP's focus on job creation.

In addition, it should be noted that small businesses are the drivers of employment in KZN. The Aerotropolis should be a catalyst to facilitate SMME development. Business support tools specifically aimed at SMME's could include active encouragement by established large businesses to utilise second tier supplying from smaller firms, and this could be tracked through the share of spend by large firms and the absolute numbers of additional SMME's established as well as the numbers employees generated.

Promoting inward investment into the Aerotropolis region should align to the key sectors identified and be focused on unlocking critical infrastructure to complement the air platform offering. Firm level investment and investment in plant should be supported through the active promotion of existing national incentives. Additional investment onto the DTP site should focus on optimizing the offering and ensuring full take-up of the site, interventions related to PPPs for services could be considered to realize this.

STRATEGIC GOAL 4: FULL COMMERCIAL DEVELOPMENT AND OCCUPATION OF ALL AVAILABLE LAND AROUND IN THE AEROTROPOLIS CORE AREA (DTP/KSIA) AND ITS IMMEDIATE SURROUNDINGS.

Strategic Objective 4.1: To position the Aerotropolis Core Area (DTP/KSIA) and its surrounding areas as an ideal location for businesses that primarily seek to locate near a growing international airport to enhance their global competitiveness.

Proposed Interventions:

- Strategic land acquisition to identify and release affordable, suitably zoned land to stimulate manufacturing-related investment in and around the Aerotropolis.
- Establish a programme to champion bulk service delivery and ensure alignment with spatial planning levers.
- Encourage the development of joint ventures with domestic partners to ensure that SEZ establishment is undertaken as a supporting tool to local business development.
- Implement a programme to ease the regulatory burden related to new investments (easy guide to establishment, dedicated support mechanisms like single point of interaction with Aerotropolis team) and eliminate red tape in the establishment of businesses and property development.
- Emerging business development programme, including assisting identification and packaging of new business specific incentives and partnerships with agencies like SEDA and Ithala, and negotiate favourable financing options for SMMEs.
- Critical infrastructure development and planning programme.
- Develop a national incentive access programme (i.e. DTI, etc.).
- Develop a package of existing local municipal incentives and engage with local government and stakeholders to develop local incentives that will encourage and stimulate investment.
- Programme towards investigation of PPP option for DTP site to optimize desirability
- Investigate alternative models for partnerships between the public and private sector to optimize desirability of the DTP and wider Aerotropolis.
- Develop a programme to encourage partnerships within the SEZ and Aerotropolis region between existing firms and new entrants by actively marketing local firm capabilities.
- Business retention and expansion programme (including after-care / after-sales
- Investment promotion and facilitation programme to promote niche opportunities and sectors, ensure that inward investment targeted through integrated implementation of the SEZ at the DTP and surrounding areas (including related incentives), and create a competitive investment climate for new businesses that seek to locate within the Aerotropolis.
- Devise a programme towards the development of an optimal economic, environmental and social planning balance.

5.5.5   Strategic Lever V: Knowledge Support and Human Capital

The extent to which the KZN economy has been struggling to develop, attract and retain specific skills in certain key sectors has had adverse knock-on effect that slows down economic growth. This problem has been compounded by the brain drain that has affected the province over the past few years. Acute skills shortages have been experienced in various sectors, which include the following:

- Artisans: Electricians, fitters, turners, welders, tool and die makers, plumbers, diesel and petrol mechanics, etc.
- Maritime: boat builders, marine engineers, electricians.
- Marine Biology: Veterinarians, marine resource health specialists, etc.
- ICT: Technicians, database administrators, etc.
- Manufacturing: Chemical engineers, etc.
- Agriculture.

The provincial and local government has also been affected by the shortage of specific skills in, inter alia, the following areas:

- Education: Math and science teachers, ICT specialists, etc.
- Health: Specialists health practitioners, etc.
- Built Environment: Urban planners, civil engineers, structural engineers, etc.
- Finance: Economists, etc.
- Transport: Engineers, planners, etc.

These shortages are mere examples and are by no means exhaustive. In dealing with this problem the Office of the Premier commissioned a study with a view to developing a Human Resource Development Strategy. The result of this study was a strategy that seeks to tackle the problem in four areas as follows:

I.   *Pillar 1:* Building a Sound Foundation in General Education for All
- Giving children a flying start
- Enhanced achievement and success in education

II.   *Pillar 2:* Building Educational Foundations for Employment and Entrepreneurship
- General education foundation for employment
- Formal education for employment – Further Education and Training (FET) and Higher Education Institutions (HEI)
- Enhanced workplace learning for employee development

III.   *Pillar 3:* Improved Governance and Management of Human Capital
- HRD Council with permanent secretariat
- Adoption of critical points of coordination in an organizational framework for streamlining HRD
- Geographic management of supply stream and demand potential

IV.   *Pillar 4:* Improved Management of Employment Demand
- Economic sector focus through sector studies and sector education coordination
- Profiling and management of scarce and critical skills
- Coordinating job creation and employment promotion interventions

- Managing sector-based entrepreneurial opportunities

STRATEGIC GOAL 5: OPTIMUM KNOWLEDGE SUPPORT THOUGHT LEADERSHIP AND HUMAN CAPITAL THAT MEET THE INDUSTRIAL AND COMMERCIAL NEEDS OF THE GROWING DURBAN AEROTROPOLIS WITH POTENTIAL TO EXPORT SUCH SKILLS AND KNOWLEDGE.

Strategic Objective 5.1: To attract, develop and retain the specialised skills required for the development of the Durban Aerotropolis that will enhance its global competitiveness and establish thought leadership base from which other regions in the whole of Africa can benefit.

Proposed Interventions

- In collaboration with the HRD Strategy team in the Office of the Premier and the Knowledge Economy Work Group, develop programs that will address the skills gaps in the following sectors:
  - ICT: sales, special repair technicians, business process outsourcing, etc.
  - Research and Development;
  - Financial Services;
  - Tourism: business (MICE), events tourism, leisure, cruising, etc.
  - Retail – Cross border shopping, clothing and textile;
  - Aviation – Specialist repair and maintenance technicians, etc.
  - Pharmaceuticals;
  - Hospitality, Entertainment and Leisure;
  - Supply Chain Management: Freight forwarders, distribution agents, logistics specialists, shipping agents, etc.
  - Light and Time-sensitive Manufacturing and Processing: Electronics, automotive, ICT, etc.
- Thought Leadership - In partnership with the four KZN tertiary institutions (Mangosuthu, UKZN, DUT, UniZulu) and the Aerotropolis Business Concepts establish an Aerotropolis Institute, which will be tasked with, inter alia, the following functions:
  i. Training and development of Aerotropolis practitioners from various parts of the country and the whole continent.
  ii. Mobilize pertinent data, information, and conduct research contributing to better Aerotropolis development.
  iii. Establish benchmarks of best practices for Aerotropolis development in Africa.
  iv. Evaluate performance and progress in cooperation with Aerotropolis stakeholders - helping them redirect efforts when necessary.
  v. Educate the next generation of South African and African Aerotropolis leaders.
- Continuous Supply-Demand Analysis of critical skills that are in high demand.

5.5.6 Strategic Lever VI: Integrated Multimodal Transport Networks

The economy of KZN is the second largest within South Africa, contributing approximately 17% to the GDP of South Africa in 2011. KZN also provides a critical link to Gauteng, which has the largest economy in South Africa. Figure 14 below illustrates the contribution made by each Province's economy relative to the GDP of South Africa.

Figure 14: KZN relative to SA Provinces
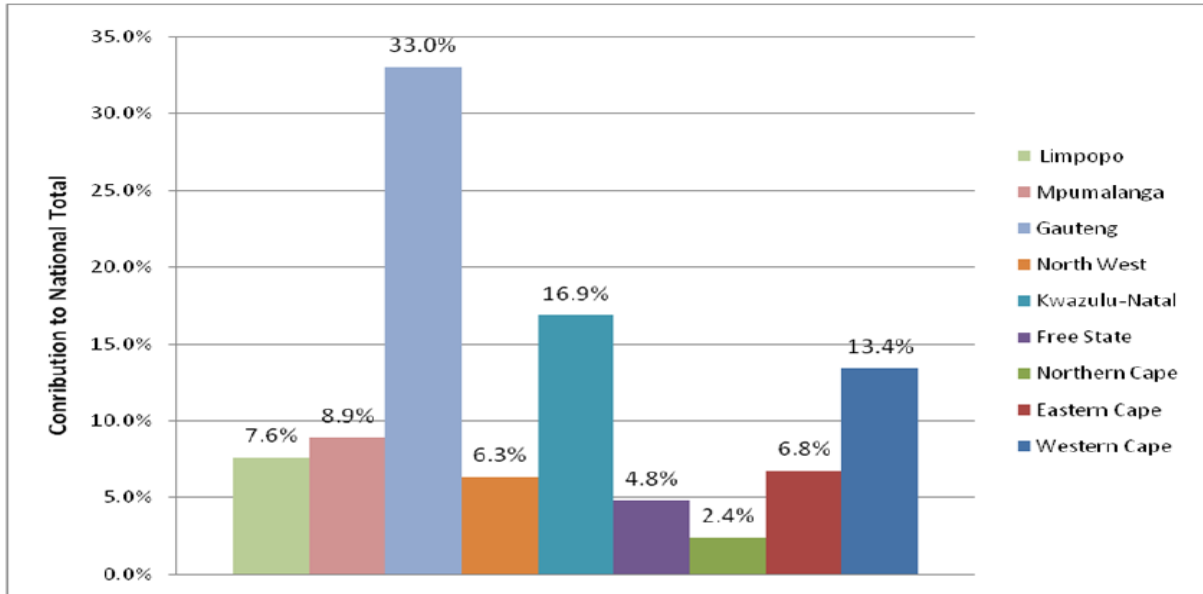
Source: KZN PGDS Augusts 2011

The Port of Richards Bay and Port of Durban are located in KZN. The Port of Richards Bay is mainly utilized as a mineral and chemicals export facility while the Port of Durban, an import/export port, is mainly utilized for general freight, containers, fuel and chemicals and automotive. Figure 15 depicts the different ports in KZN as well as a graphic illustration of the New Durban Dig-Out Port

Figure 15: Ports in KZN

Source: Transnet LPTF 2013

Figure 16 illustrates the diversity of the economic base within the Province. It is important to note that the manufacturing sector contributed 22% to the economy and transport, storage and communication sector contributes 14% to the economy in 2011.

Figure 16: KZN Economic Composition
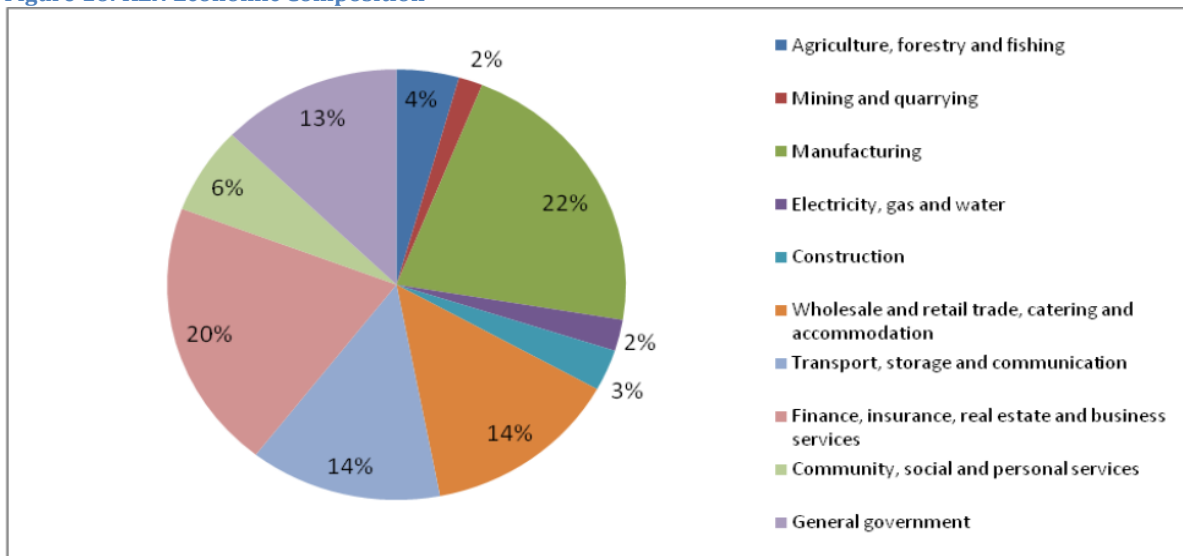
Source: KZN PGDS Augusts 2011

Currently more than 80% of freight between Durban and Gauteng is transported by road, which results in an overburden on the road network and also contributes to the transport logistics cost in South Africa. The objectives of the SIP2 programs are aimed at alleviating this situation. The following economic sectors are relevant to the Aerotropolis and they are:

- Light manufacturing;
- Wholesale and retail;
- Catering and telecommunication and lastly; and
- Transport storage and business services.

A highly efficient public transport system supports the economic activities by means of providing connectivity to all modes of transport and the integration thereof. Furthermore, it provides basic infrastructure and advanced communication network for the Aerotropolis as well as logistic tools and software.

In future, freight will continue to be transported via a combination of road, rail and air. The development of nodes in the interior of the Province and the enhancement of rail, road and airfields will be critical to enable the Province to unlock sufficient transport capacity to ensure the movement of fast moving consumer goods and light manufactured goods between KZN and Gauteng as well as to coastal areas.

STRATEGIC GOAL 6: EFFICIENT INTEGRATED MULTIMODAL TRANSPORT NETWORKS THAT MEET THE INTERNATIONAL STANDARDS OF FIRST AND LAST MILE OF AIR TRAVEL.

Strategic Objective 6.1: To influence the development of efficient road and rail linkages to KSIA that connects the major commercial nodes within the Aerotropolis study area.

Proposed Interventions:

- Mapping and analysis of all freight generating activities in the region and surrounding areas.
- Identify, analyse and classify the freight types being transported on the N2 and N3 corridors (Bulk, Break bulk, Fuel and chemicals, Automotive), using the SIP2 database.
- Identify the origin and destination of freight types which could potentially benefit from the Aerotropolis.
- Establish the required infrastructure to support freight on the corridor.
- Identify connectivity requirements between the Aerotropolis and the corridors.
- Determine the logistic requirements of freight on the corridor and how the Aerotropolis can support or benefit from it (e.g. parcel sizes, infrastructure, security, etc.).
- Establish the logistics requirements to support freight along the corridor (i.e. warehousing, cold storage facility, truck stop facility, transhipment, etc.);
- Establish intelligent transport capacity.
- Prioritise road-based transport corridors that link townships and rural areas with the airport.

Figure 17 : Existing Rail Line Relative to KSIA and Public Transport Link
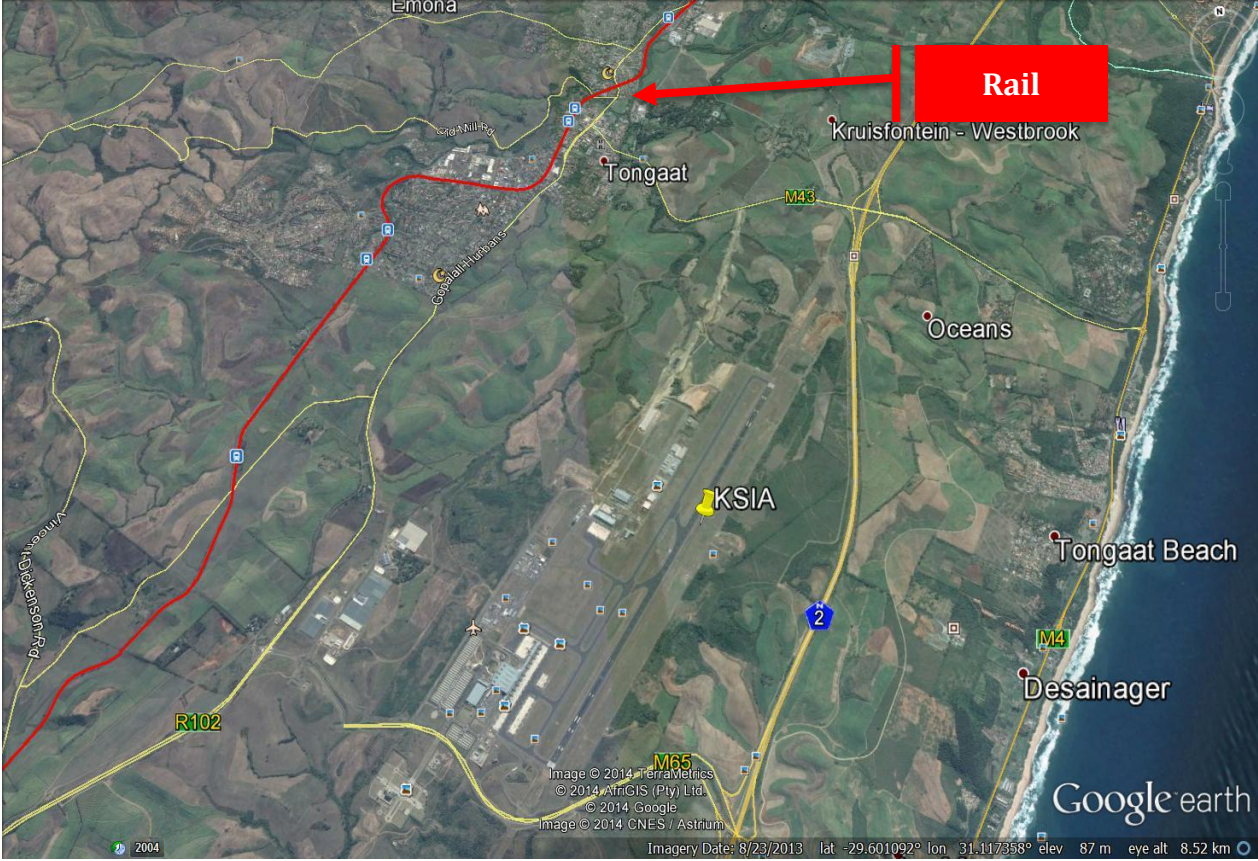
Strategic Objective 6.2: To develop an efficient public transport system that will discourage the use of private vehicles.

Proposed Interventions:

- Mapping of public transport networks relative to the Aerotropolis development;
- Identify, analyse and classify public transport requirements to and from tourism nodes, areas of work, job opportunities and households.
- Identify the most appropriate transport system within the Aerotropolis to connect all activities and the airport terminal.
- Identify the most appropriate transport system between the Aerotropolis and the existing rail network.
- Identify through PRASA infrastructure requirements/upgrades on the existing rail link.
- Determine the most applicable link between the Aerotropolis and the existing railway network.
- Identify the most efficient public transport linking the airport with the CBD's of Durban and Stanger/Ballito (PRASA has undertaken a study to identify the most efficient public transport system between the Aerotropolis and the Durban CBD.
- Develop the most appropriate public transport system between the Aerotropolis and the surrounding economic clusters.
- Integrate the different public transport modes as identified.
- Identify facilities to support the different modes of transport and Phasing of public transport initiatives.

Strategic Objective 6.3: To divert time-sensitive road-based freight destined for Gauteng and other neighbouring states to air cargo.

Proposed Interventions:

- Identify and analyse existing air routes/destinations served by KSIA.
- Identify and analyse freight types which could potentially benefit from direct shipments.
- Establish a freight corridor between the Port of Durban and New Durban Dig-out port. The freight corridors will be aligned with the outcome of the Freight study undertaken by eThekwini.
- Develop mechanisms to release containers with high valued goods on arrival at the port for distribution via the KSIA.
- Determine the logistics support systems required between the port and the KSIA.
- Support freight forwarders in the Aerotropolis.
- Establish a call centre equipped with advanced technologies in the airport city.

5.6 Aerotropolis Support Pillar

The support pillar comprises a set of enablers that create an ideal environment and the economic infrastructure that is essential for the development of an Aerotropolis. The support pillar includes the following strategic levers:

- Place Marketing;
- Advanced Telecommunications Infrastructure;
- Infrastructure and Engineering Services; and
- Sustainability.

5.6.1   Strategic Lever VII: Place Marketing

The process of developing a generic product, branding and packaging it to launch into a cluttered consumer market place has always been a relatively simple and straightforward exercise, assuming that all the market research and gap analysis have been done. How does one then take this process to an intangible entity like a city, a province or a nation? This brings the concept of place marketing and branding into the marketing mix. There is a plethora of literature on this subject but consensus has not always existed, as is the case with generic products like toothpaste. Huge strides have been made in this field of marketing and this has been spearheaded by government agencies wishing to pitch their destinations to potential investors, tourists, citizenry, etc.

Executing a place marketing strategy for a country or a province with clearly defined boundaries and administrative structures, can be achieved with relative ease when compared to that of an Aerotropolis, which has amorphous boundaries. Global Aerotropoli are seldom confined to a single municipal boundary and Durban Aerotropolis is no exception.

Airport executives, planners and architects have attempted to infuse terminals with local identity and symbolism. Naming or renaming the airport or terminal, local food and specialty shops and focused public art programs are three prominent strategies currently being used to achieve this goal. The easiest and most common strategy, naming, creates ties to people and history and thus identity. For example, King Shaka, John F Kennedy and Charles de Gaulle International Airports evoke a stronger sense of identity than the names like Munich International Airport. Likewise, OR Tambo International Airport creates associations that Johannesburg, the airport's former name, never had. Having said this there is a danger of renaming an airport from a very strong brand like Johannesburg. The renaming of Johannesburg to OR Tambo International Airport caused huge problems in the aviation community, but the retention of the JNB code mitigated this confusion.

The second strategy, creating commercial space in airports, has likewise been an integral component to creating community significance for many years. A growing number of airport restaurants were elevated from nameless cafeteria fare to franchise restaurants as the amount of passengers increased, but sameness persisted. As a result, Memphis barbecue, Philly cheese steaks and Indy 500 Authentics can now be found in their respective airports, using local food and speciality shops as a way to connect with a regional identity.

The naming of the Durban Aerotropolis has huge implications for place marketability of the Aerotropolis. Rather than take a relatively unknown brand name with less international appeal, KZN would be well advised to take advantage of the 3rd most recognisable place brand in South Africa: "Durban". Notwithstanding the fact that the envisage study area of Durban Aerotropolis covers about four local, two district and one metropolitan municipalities, the largest area is still within the boundaries of Ethekwini. Drawing on the brand attributes and strengths of Durban will make the task of marketing the Aerotropolis so much easier.

STRATEGIC GOAL 7: A GLOBALLY COMPETITIVE AND A STRONG PLACE BRAND: DURBAN AEROTROPOLIS, AS POSITIONED IN THE MINDS OF INTERNATIONAL TOURISTS AND EXECUTIVES OF AIRLINES, SUPPLY CHAIN COMMUNITY AND COMPANIES SEEKING LOCATION NEAR A MAJOR INTERNATIONAL AIRPORT HUB.

Strategic Objective 7.1: To design, create and position to the target market Brand: Durban Aerotropolis as the top of mind corporate identity that will project a globally competitive and attractive region.

Proposed Interventions:
- Research the brand elements and attributes of Brand: Durban that are consistent with a generic Aerotropolis.
- Position the brand in the market place to target primarily airlines, investors, businesses seeking ideal airport city locations, tourists, etc.
- Test market the new brand amongst the target market,
- Develop a brand manual with a set of guidelines that will maintain brand integrity.
- Ensure full buy-in of the brand: Durban Aerotropolis amongst all stakeholders, including those in the private sector.
- Develop a strong identity for the brand in terms of how it is to be perceived by the target market.
- Develop a set of values for the brand that will build a competitive advantage for the Aerotropolis.
- Ensure that the development of the Durban Aerotropolis brand should embody the brand promises contained in the brand positioning statement.
- Subscribe to the Anholt-GfK Roper Global City Index to track the world's perception of Durban.

Strategic Objective 7.2: To influence the development of an urban form that is consistent with the Durban Aerotropolis brand attributes.

Proposed Interventions:
- Ensure strong links between the functionality of airport city (DTP/KSIA) and the design and form that will meet the needs of travellers, businesses, etc.

- Ensure that the urban form resulting from the design of the Aerotropolis core informs and guides the design of the larger Aerotropolis. All this will be driven by the functionality of the airport city (DTP/KSIA). Landmarks, recognizable but not necessarily monumental or even well loved, provide points of reference.

Strategic Objective 7.3: To position Durban Aerotropolis as the best tourist destination in Africa.

Proposed Interventions:

- Engage Tourism KZN, Durban Tourism, Trade and Investments KZN, National Department of Tourism (NDT), SA Tourism and Brand South Africa to align the Aerotropolis brand positioning in the minds of existing and potential KZN international tourists.
- Influence the implementation of the various strategies of these organisations, in particular the KZN Tourism Strategy and the NDT's National Tourism Sector Strategy.

Strategic Objective 7.4: To position KSIA and the Aerotropolis as the most profitable destinations for airlines looking for an alternative hub in South Africa.

Proposed Interventions:

- Continuously lobby global airlines in events like World Routes, IATA Slot Conference and through regular visits to their headquarters.
- Advertise in key publications focused on airline executives and other stakeholders in the aviation industry.

Strategic Objective 7.5: To position the Aerotropolis as the best place to locate one's business and as the best investment destination.

Proposed Interventions:

- Participate and showcase Durban Aerotropolis at various targeted business forums, conferences, exhibitions, etc.
- Advertise in selected business publications with targeted readership.

Strategic Objective 7.6: To position the Aerotropolis as the best host for major international events in areas of sport, MICE, cultural, etc.

Proposed Interventions:

- Highlight Durban's history of hosting major events like the 2010 FIFA World Cup, 2011 International Olympic Committee Session, 1995 Rugby World Cup, 2003 Cricket World Cup, 2013 African Cup of Nations, 2011 COP 17, Durban July, Comrade Marathon, etc.
- Link the hosting of major events with the other strategic plans like those in tourism, investment promotion and marketing to airlines.
- Showcase key assets like Moses Mabhida and the Durban ICC.
- Explore PR opportunities in all events hosted in Durban.

- Create opportunities for targeted airlines to partner on favourable terms with KZN in all the events hosted in the Aerotropolis.

5.6.2 Strategic Lever VIII: Advanced Telecommunications Infrastructure

An advanced telecommunications infrastructure is the backbone of a growing Aerotropolis and the Durban Aerotropolis will require a solid infrastructure in this regard. The current status, nationally and provincially, does not augur well for the Durban Aerotropolis. According to the latest Statistics SA National survey only 34% of households have access to Internet, however the picture gets worse in the case of KwaZulu-Natal. At 33% Internet access this province ranks fifth behind Gauteng (54.7%), Western Cape (54.3%), Free State (42.1%) and Mpumalanga (40%). These statistics do not compare well with other countries, especially in Africa. Top European countries enjoy Internet access of 86% to 96%. On the African continent South Africa does not even feature in the top 5. These spots are taken by Morocco (53%), Seychelles (47%), Egypt (44%), Tunisia (41%) and Mauritius (41%)[10].

Whilst Internet access remains a challenge in South Africa, the speed at which the Internet is accessed leaves much to be desired. South Africans are accessing the Internet at an average speed of 2.3Mbps, whilst the global average stands at 14Mbps. The world's top 10 best performers in terms of internet speed range from 38Mbps to 82Mbps[11]. The highest speed that has been achieved in South Africa is in Midrand at 11Mbps[12].

The problems associated with our poor Internet broadband can be summarized in terms of the WEF's Global IT Report, which was released in April 2013 and surveyed 144 economies:

Table 5: WEF Global IT Report 2013

Area of Ranking	RSA Ranking
ICT infrastructure and digital content of economies account for a total of over 90% of global GDP.	59th
Mobile network coverage	40th
Companies' ability to use ICT to improve productivity	33rd
How importantly government regards ICT policy and online government services	102nd

This report further states that a good broadband Internet access may account for up to 1.4 percentage points of economic growth.

In its draft policy, which was finalized in November 2013, the Department of Communications unveiled a very ambitious plan to increase Internet access to 100% at

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[10] Source: Broadband Commission of ITU and UNESCO
[11] Source: WEF Global IT Report 2013
12 Source: www.mybroadband.co.za

average speed of 5Mbps by 2020 and plans to increase this speed to 100Mbps by 2030. This is a very tall order given the current Internet access of 34% at an average speed of 2.3Mbps. The other major barrier to high-speed Internet access has to do with the cost of broadband access. In the latest Nokia Net Index 64-nation survey showed South Africa as having the highest average price per Mbps for broadband access, at US$ 30.72.

Cost-effective Internet penetration of over 50% and at average speed higher than national average of 2.3Mbps could be a "game changer" for the economy of the Durban Aerotropolis. However in order to fully exploit this advantage the target will have to outdo national averages in internet access and speed thereof. KZN currently lags behind the national averages, though the area covered by the Durban Aerotropolis could be higher than the rest of the province. Nevertheless, none of the Durban Aerotropolis areas feature in the Top 10 Broadband Town Survey. The target will have to be to perform better than Midrand, which is the best node in terms of Internet speed and access.

In addition to the City's MetroConnect and DTPC's Dube iConnect, the KZN Government developed the Provincial Broadband Strategy and Action Plan. The objective of this strategy is to provide "high speed always on" Internet access for all the province's citizens. The implementation of this strategy seems to prioritise the areas with the lowest Internet access, whilst leaving the Aerotropolis core areas to be served by the DTPC's and City's programs.

STRATEGIC GOAL 8: AN ADVANCED TELECOMMUNICATIONS INFRASTRUCTURE THAT SUPPORTS A TOTAL SMART CITY SOLUTION FOR THE DURBAN AEROTROPOLIS.

Strategic Objective 8: To develop the most technologically advanced smart city solution in Africa that will provide the cheapest and fastest broadband connectivity with the highest "up time" for businesses and residents located within the Aerotropolis.

Proposed Interventions:
- Cost of Accessing Internet:
  - Exploit infrastructure provided by the three undersea broadband cables that have been rolled out at Mtunzini with two (EASSY and Seacom) being active and the third one (SAEX) going live in 2014.
  - Collaborate with all major role players including Telkom, Neotel, and Dark Fibre Africa (DFA), which have put extensive fibre backbones linking Mtunzini to Durban along the N2 corridor.
  - Establish a collaborative forum of Aerotropolis stakeholders to pool the buying power for fixed and mobile broadband to drive costs down.
  - Use the forum to negotiate lower prices from suppliers of fixed and mobile broadband.

- Take advantage of the deals made through organs of state like the Department of Communications, SITA, etc.

Smart Aerotropolis Solution
- Pursue the design and implementation of the Total Smart Aerotropolis Solution, adapted using the Smart City Concept to enable the development of the following projects:
  - Remote flight check in, custom clearance, air cargo movements, tourist information, etc.
  - Smart Economy – competitive costs of doing business, attractive rates, etc. (Business Growth and Development);
  - Smart People – e-learning (Knowledge Support and Human Capital);
  - Smart Governance – On-line government services for residents, businesses, travellers, etc. (Business Growth and Development);
  - Smart Mobility – On-the-go business services suites (Business Growth and Development);
  - Smart Living – quality of life for residents (Sustainability);
  - Smart Environment – sustainable communities, health, safety, etc. (Sustainability);
  - Smart Buildings – energy efficient;
  - Smart Transportation – intelligent traffic management, intermodality, etc.
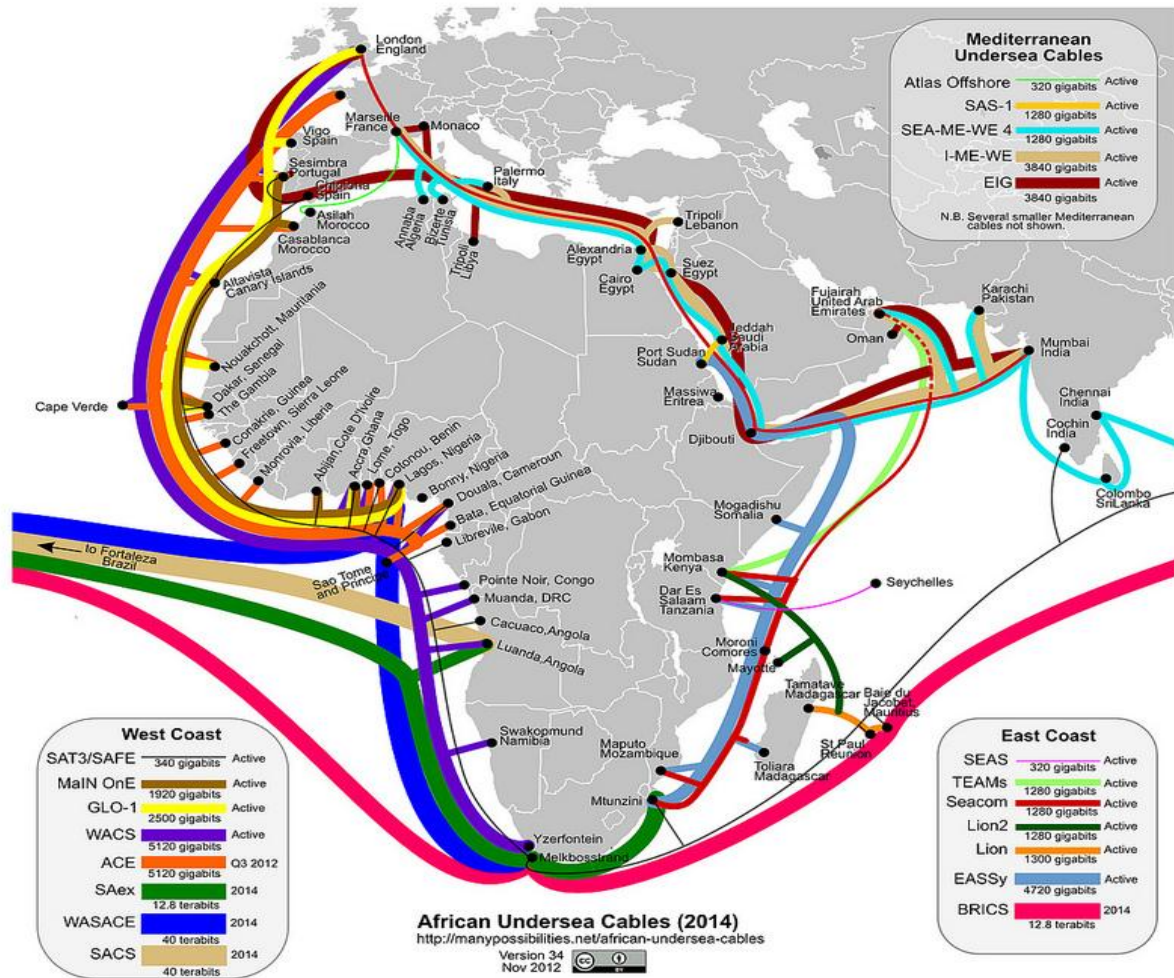
5.6.3 Strategic Lever IX: Infrastructure and Engineering Services

The pace at which the Durban Aerotropolis is developed will largely be determined by the speed at which the Municipalities of eThekwini, uMgungundlovu and iLembe are able to deliver key infrastructure projects in, inter alia, the following areas:

- Electricity;
- Water;
- Wastewater Treatment Works;
- Roads and Storm Water Drainage;
- Public Transport Infrastructure, especially the rapid rail link between the airport and CBD;
- Tongaat Waste Water Treatment Works;
- Northern Waste Water Treatment Works;
- Eastern Arterial (R102 uShukela Drive)
- Ushukela Drive Upgrade;
- Dube West Road Link (M41 – R102); etc.

Ethekwini Municipality's investment on infrastructure projects has been declining in the past 20 years. The most severe risk in not delivering this basic infrastructure has to do with

wastewater treatment. The lack of investment in other inland municipalities like Msunduzi has had a negative impact on the quality of Durban water. Poor and ageing infrastructure has resulted in environmental degradation and ultimately compromises key natural resources. In the case of KwaDukuza the municipality has been unable to cope with the increased demand in basic infrastructure necessary for property development. Problems like interrupted electricity supply in this municipality has been very well documented.

Unless these three municipalities are able to address the infrastructure backlogs the pace of the development of Durban Aerotropolis might be slowed down. Furthermore, the City of Durban is unable to deliver the infrastructure at the rate which business development requires. Whilst these municipalities have been able to mobilise huge Municipal Infrastructure Grants (MIG) in their Medium Term Expenditure Frameworks, these funds might fall short of the requirements of developing the Aerotropolis. Furthermore these funds may be prioritized for programmes like social housing, electrification of informal settlements, etc. It is therefore imperative that the Durban Aerotropolis team lobbies these municipalities to prioritise the provision of the infrastructure required to develop the Durban Aerotropolis. It might be in the best interest of these municipalities to prioritise this infrastructure, as it will generate the necessary income for use in poorer areas.

STRATEGIC GOAL 9: A SOLID MUNICIPAL INFRASTRUCTURE AND ENGINEERING SERVICES THAT SUPPORT A CONTINUOUS SUPPLY OF SERVICES LIKE ELECTRICITY, WATER, SANITATION, ROADS, ETC.

Strategic Objective 9: To develop and maintain an infrastructure will ensure that no municipal services are interrupted that would affect the businesses and residents located within the Aerotropolis.

Proposed Interventions:
- Identify infrastructure investment needs, especially in the case of ageing infrastructure for water and electricity reticulation.
- Explore the setting up of a special fund to finance bulk infrastructure for water, sanitation, electricity and municipal roads in priority development areas with the envisaged SEZ.
- Explore the use of SEZ incentive schemes to encourage private sector to make contributions for bulk infrastructure.
- Align and consolidate the IDP's of the three municipalities (Ethekwini and those in the districts of Ilembe and uMgungundlovu) into one programme that addresses the needs of the Aerotropolis.
- Ensure that the major property developments in the Aerotropolis are not hampered by lack of basic infrastructure.
- Ensure that infrastructure investments are guided by the integrated spatial planning mooted in Strategic Lever II above.

5.6.4   STRATEGIC LEVER X: SUSTAINABILITY

The Aerotropolis concept forms the centre of commercial development that has transformed global city airports into airport cities. The Aerotropolis positions cities as 21st century drivers of economic growth in urban areas, business locations and global economic integration. With the rapid growth and development of an Aerotropolis also comes increasing pressure on the environment – both socially and ecologically.

Globally we are increasingly aware of the impact of the loss, limitation, minimisation and excessive use of the natural resource base to accommodate the increasing demands due to rapid development. Simultaneously there is an increase in the generation of waste that impacts on natural resources, including air and water quality. Within the context of a carbon constrained environment and the risks associated with climate change, issues of increasing importance include pressured resources, the need to continuously monitor and improve on risk management and socio-economic inclusion. This brings the notion of sustainability, and planning for and managing sustainable development to the fore as a critical component to the development of South Africa across all levels of government.

Sustainability does not merely relate to the environment and "green issues". The social and economic components must be taken into consideration to ultimately ensure the balanced integration of the natural, social and economic contexts in planning for development and implementation. Pro-actively integrating sustainability provides a unique and effective platform to encourage and facilitate cross-sectorial interaction pertaining to the various development pillars of the Durban Aerotropolis.

5.6.4.1   Sustainability in the Context of the Durban Aerotropolis

Sustainability comprises four key components or focus areas, namely:
- The economic context;
- The environmental context;
- The social context; and
- The institutional context.

Within the context of the above, and taking current realities such as climate change, resource management and the social needs of a developmental state into consideration, sustainability implies two key concepts:

- ***The Notion of NEED*** – the needs of communities, districts or regional areas; the needs in terms of ecological balance; the need for economic development and viable longevity and finally the need for institutional frameworks to effectively govern and inform processes whereby these needs are met and adequately addressed.
- ***The Notion of LIMITATIONS*** - limitations pertaining to resource use and resource development, taking inter and intra-generational issues into consideration.

Taking the above defining elements of the concept of sustainability into consideration, the following model overleaf provides an overview of how sustainability is defined specifically for the Durban Aerotropolis.

FOUNDATIONAL CONTEXT

DURBAN AEROTROPOLIS SUSTAINABILITY OBJECTIVES

TO ACHIEVE

Economic context

E... context

Social context

Institutional context

Economic Viability
- Develop a short-term local economic focus to ensure long-term regional, national and international growth.
- Create a strong local economic platform to sufficiently support the growth objectives of the Durban Aerotropolis.

Environmental Integrity
- Acknowledge environmental impacts and climate change conditions.
- Focus on resource optimisation and conservation.
- Minimise waste and carbon emissions.
- Take environmental aesthetics into considerations in design and operational functionality

Social Inclusion
- Integrate local social development initiatives as part of the development plan.
- Ensure local buy-in and participation.
- Address local content – job creation, skills diversification, short and long term focus.
- Contribute to local issues around livelihood security and agricultural development

Institutional Leadership and Management
- Manage public perception of the image, management, trust of the institutional framework for the Durban Aerotropolis.
- Increase integration of various departmental sectors and initiatives to contribute to holistic planning.
- Create an efficient, effective and accountable institutional management framework.

DEVELOPMENT RESILIENCE

To withstand
- Climate change impacts.
- Resource limitations.
- Skills shortage.
- Social exclusion.
- Economic instability.
- Environmental pressure.

TO ULTIMATELY ADD TO

Environmental capital

Soci...

Infrastru...

STRATEGIC GOAL 10: A SUSTAINABLE DURBAN AEROTROPOLIS THAT EMBODIES ECONOMIC VIABILITY, ENVIRONMENTAL INTEGRITY, SOCIAL INCLUSION AND STRONG LEADERSHIP.

Strategic Objective 10: To ensure that the development of the Durban Aerotropolis is sustainable in economic, environmental, social and leadership areas.

Proposed Interventions:

- Encourage local job creation through a skills development strategy and economic revitalisation plan.
- Establish specific market focus areas for focused development and investment.
- Enhance import and export capacity of the aerotropolis concept.
- Promote sustainable local tourism.
- Focus on resource efficiency in design and implementation.
- Develop strategic mitigation measures where minimisation or conservation is not possible.
- Define a Regional Open Space System.
- Develop a set of environmental strategic documents including a Strategic Environmental Assessment (SEA) and an Environmental Management Framework (EMF) to determine sensitive areas, priority conservation principles and development integration guidelines for offsetting opportunities.
- Determine environmental indicators to allow for the effective integration of development with the regional open space context.
- Develop a structured Sustainability Framework to address the linking and integration of environmental protection and development, social and economic development speaking directly to issues related to inter alia food security, climate change mitigation and adaptation, community interaction and development and local business diversification.
- Reduce carbon emissions by implementing low carbon technologies pertaining to transport, operations and developing a focussed set of offsetting principles and targets.
- Minimise waste through a focussed waste minimisation strategy and a pro-active and operationally integrated recycling strategy.
- Develop green corridors and allow for active and passive open spaces as a critical component to the design of the Aerotropolis.
- Assessment and understanding of local social needs and capacities to identify gaps in terms of development objectives and implementation impact potential.
- Facilitate local involvement to encourage buy-in through awareness campaigns, stakeholder mapping and active stakeholder communication.

6 - WHAT WILL IT TAKE TO GET THERE?

5.1   Implementation Framework

Implementation Approach

The first step in developing an implementation plan for a strategy is to decide on an approach to do so. One critical and strategic imperative in the implementation of the KZN Integrated Strategy will be to mobilise varying interests of a multiplicity of stakeholders to achieve a common goal. It is therefore imperative that a collaborative approach to implementation is carried through, as has been the case with the process of developing this strategy. The collaborative approach extends strategic decision-making to a wider stakeholder grouping to collaborate on a negotiated settlement of key issues. Through this collaborative approach, group dynamics and brainstorming techniques were used to get stakeholders with differing points of view to contribute to the strategic planning process.

The collaborative approach overcomes two key limitations of a single entity approach. By capturing information contributed by stakeholder representatives closer to operations, provides a forum for the expression of managers closer to operations and by offering a platform for the expression of many viewpoints. It can also increase the quality and timeliness of the information incorporated in the strategy. It further improves the chances of efficient implementation through stakeholder participation.

While the collaborative approach may gain more commitment than the single entity approach, it may unfortunately results in a poorer implementation. The negotiated aspect of the process brings with it several risks that the strategy will be more conservative and less visionary than one developed by a single entity. Furthermore, the negotiation process can take so much time that an organization misses opportunities and fails to react soon enough to changing environments.

Notwithstanding these inherent shortcomings, the Collaborative Approach remains viable for implementing the KZN Integrated Aerotropolis Strategy. The key to a successful implementation lies in proactive management of various stakeholder interests and relationships that are characterised by different corporate cultures.

6.1.1   Implementation and Stakeholders

The first step in managing the stakeholder expectations is to identify the stakeholders. In this section of report stakeholder organisations have been identified only as juristic persons. It is necessary to drill down in each organisation and zoom into an individual or a small group of individuals who have the ultimate power to bind an organisation. For instance, for municipalities it might be the municipal manager and/or the executive committee. For SOEs and other private companies, the CEO or the board of directors could be the relevant persons. For KZN Government the MECs and ultimately the executive council would be critical. Once the key individual or group of individuals is/are identified it becomes easier to manage their somewhat incongruent expectations.

Identifying stakeholders helps in responding to critical interdependencies in the implementation of the IAS. It represents an active, integrated approach to achieving common purpose for the development of the Durban Aerotropolis. An important outcome from this analysis is the determination of the timing and degree of participation of stakeholders in decision-making. Certain key questions will have to be addressed in managing the participation of the KZN stakeholders in decision-making, and these include the following:

- Which stakeholder interests are most important?
- To which stakeholders should management give its loyalty?
- Will any stakeholder be affected by the proposed decisions?
- Should strategy be changed to meet stakeholder expectations?
- Is it possible to negotiate a compromise?
- Should certain stakeholders be replaced?

Developing the Implementation Plan

There are six principal steps that shape an organisation's agenda for developing an implementing plan and they are as follows:

i. Building a Strong Organisation Structure
ii. Resource Allocation
iii. Internal Administrative Support System
iv. Reward and Incentive Program
v. Shaping Organisational Culture to Fit the Strategy
vi. Exercising Strategic Leadership

These steps are now discussed in detail.

6.2   Building a Robust Organisational Structure

As is the case the world over, the development of an Aerotropolis has far-reaching implications for municipal and sometimes provincial boundaries, and Durban Aerotropolis is no exception. The Aerotropoli cases discussed in this report show that the cooperation of various stakeholders is necessary to attain goal congruence in the implementation of Aerotropolis programmes. Various governance models have been implemented in various Aerotropoli and table 5 outlines those examples.

Table 6: Institutional Structure case Studies

Aerotropolis	Institutional Structure
Memphis Aerotropolis	An Aerotropolis Steering Committee was established with representation from private and public sector entities, which included the following: City of Memphis, University of Memphis, Greater Memphis Chamber, Shelby County Airport Authority, Northwest Airlines, Pinnacle Airlines and Memphis Convention and Visitor Bureau. This Committee facilitated the establishment of the Memphis Airport Area Development Corporation with a specific mandate to develop the Memphis Aerotropolis.
Detroit Aerotropolis	No less than nine county and city governments near Detroit Metropolitan. Wayne County Airport and Willow Run Airport signed a memorandum of understanding to co-operate in region-wide planning. A 35-member public-private leadership Aerotropolis Task Force was then established to oversee the formation of an Aerotropolis strategy, which gave rise to the formation of the Aerotropolis Development Corporation.
Schiphol Amsterdam	In 1987, four entities, the municipalities of Haarlemmermeer and Amsterdam, the Province of North-Holland and the Schiphol Group signed a shareholders agreement (as equal partners) that gave rise to the formation of the Schiphol Area Development Corporation (SADC). This entity was tasked with developing the area within a 20-kilometre radius from the airport and also to market and promote the airport city and Aerotropolis.
Ekurhuleni Aerotropolis	In July 2011, the City of Ekurhuleni adopted the Aerotropolis concept and invited its key stakeholders, the Gauteng Provincial Government and the Airports Company of South Africa (ACSA), to partner with it in developing the Ekurhuleni Aerotropolis. Given the fact that the Aerotropolis area would cover a huge area that falls outside of the city's demarcation, the Executive Mayor, requested that the project be located in the office of the Premier. It was then agreed that the Gauteng provincial government through the office of the Premier would oversee the project, with the city being the implementing agency. The Premier then appointed Mr Jack van der Merwe (CEO of Gautrain Management Agency), to oversee the development of the Aerotropolis Master Plan. This Master Plan is envisaged to map out the intergovernmental relations between all parties concerned.

It can be deduced from the examples above that the development of a viable and thriving Aerotropolis requires a multi-stakeholder and inter-departmental involvement drawn from both the public and private sector. In the case of Durban Aerotropolis, the need to bring on board all affected stakeholders cannot be overemphasized and these include the following:

- **Municipalities:** Ethekwini, iLembe (KwaDukuza, Ndwedwe), uMgungundlovu (Msunduzi);
- **KZN Provincial Departments:** EDTEA, Agriculture, Transport, CoGTA, Planning Commission and Treasury;
- **KZN Entities:** Dube Trade Port Corporation, Tourism KZN, Ithala Bank, Trade and Investments KZN;
- **State Operated Entities:** Transnet, PRASA, SANRAL, SAA and ACSA;
- **Private Sector:** Key entities like Tongaat Hulett, Old Mutual, Ingonyama Trust, Growth Coalition, Ilembe Chamber, Durban Chamber, SAPOA, Pietermaritzburg Chamber, etc.

While there is a need for an all-inclusive structure, downside risks exist in that that it may be too bloated to the extent of stifling progress. The international Aerotropoli examples point to a strong need for an inclusive oversight body such as a special purpose vehicle (SPV), which can be established through existing legislation. For KwaZulu-Natal, establishing a new entity for this purpose is seemingly not an ideal option given the existence of Dube Trade Port Corporation. Against this backdrop, DTPC becomes the most ideal entity to implement the Aerotropolis. For this to happen, however, the mandate of the DTPC must be expanded to include the function of developing the larger Aerotropolis and also the implementation of the SEZs bill. The DTP Act currently makes reference to the DTP Region, which covers an area within the 30-kilometre radius from KSIA, but stops short of how this mandate could be discharged without the involvement of other role players like the City of Durban.

The legislation governing inter-governmental forums, The IGR Framework Act, may be ideal to govern collaboration of organs of state, but it falls short when it comes to the inclusion of the private sector. While government is a necessary facilitator in the development and management of an Aerotropolis, the role of private sector is too big to be ignored. The ideal structure for KZN is one that incorporates interest groups such as the Durban Chamber, iLembe Chamber, South African Property Owners, Ingonyama Trust, Growth Coalition and other key private sector stakeholders like Tongaat Hulett and Old Mutual.

The above stakeholders should form part of the Durban Aerotropolis Steering Committee (ASC), to be convened by the KZN EDTEA. The Department will also provide secretariat for this Committee. These stakeholders will be signatories to a Memorandum of Understanding that commits each one of them to the development of the Aerotropolis. The Aerotropolis Steering Committee will oversee and support the Aerotropolis development role of DTPC. The ASC work will be supported by working groups to be formed in accordance with the 10 strategic levers of the Durban Aerotropolis Strategy.

The governance structure for the Durban Aerotropolis will start with the establishment of a multi-stakeholder committee representative of governmental and private sector representatives. These stakeholders will sign a MoU that will commit them to support the development of the Aerotropolis. The Aerotropolis Unit within EDTEA, which will also provide a secretariat for Aerotropolis Steering Committee, will convene the meetings. There will also be a reporting line to the SIP 2 Stakeholder Engagement Forum. The committee will then oversee the implementation of the KZN Integrated Aerotropolis Strategy by the DTPC. The proposed structure is as per Figure 19 below.

Figure 19: Institutional Framework for the Implementation of KZN IAS
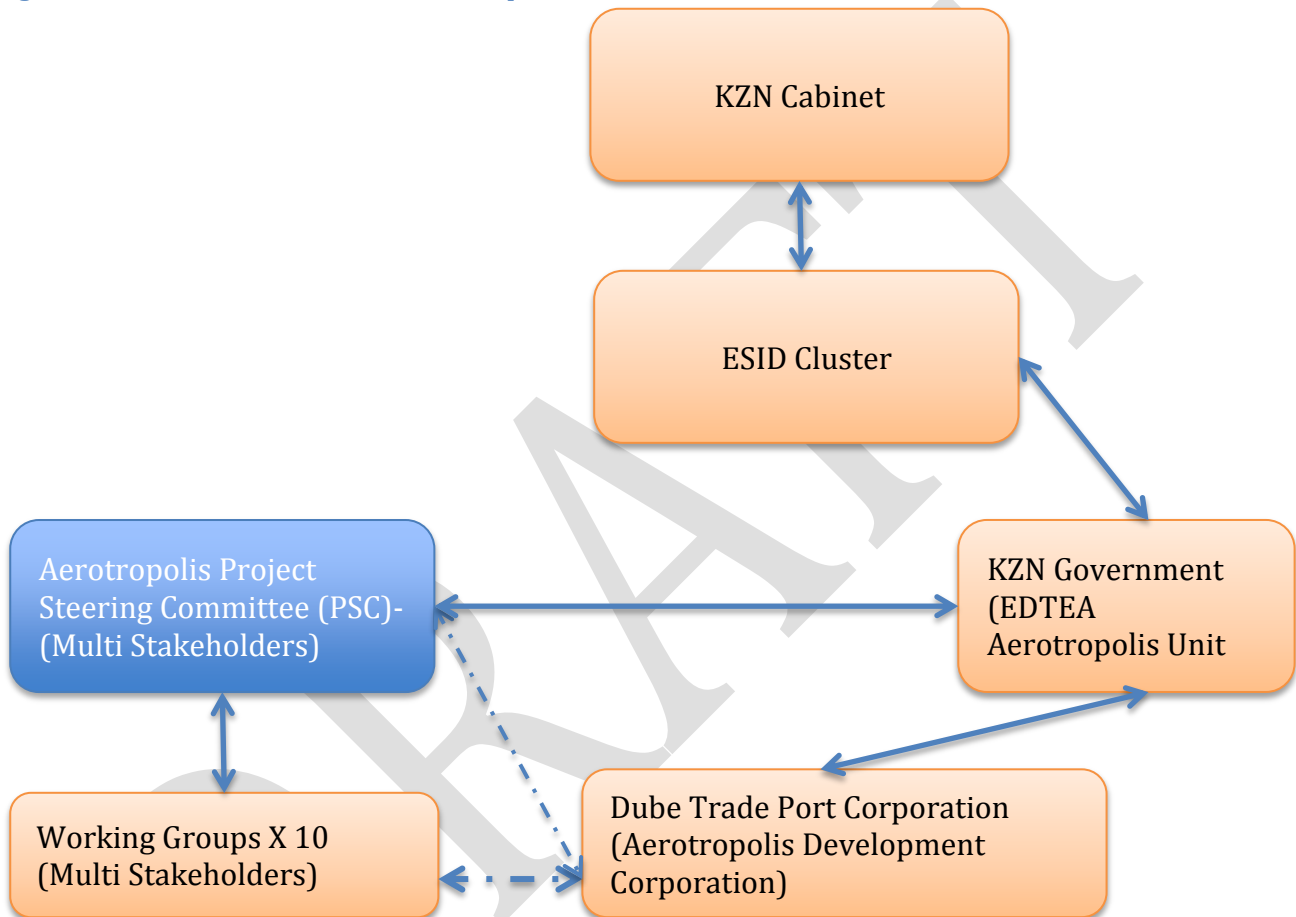
6.2.1 Terms of Reference

6.2.1.1 EDTEA Aerotropolis Unit

It is envisaged that this Unit be established within the KZN DEDET and its key performance areas will include the following:

- Develop the Aerotropolis Master Plan (Importance of involvement of stakeholders).
- Overall coordination of Durban Aerotropolis and oversee implementation
- Secretariat for the Aerotropolis Steering Committee (ASC).
- Liaison with other governmental structures, departments, SOE's and entities.
- Liaison with other forums like the SIP 2 Stakeholder Engagement Forum.
- Periodic reporting on the progress of the development of the Aerotropolis;
- Monitoring and evaluation;
- Convening of the Aerotropolis Steering Committee (ASC).

- Custodian of the Aerotropolis Strategy and its implementation.
- Manage and promote healthy inter-governmental and private sector stakeholder relations and involvement.
- Provide operational support to the day-to-day operations of the ASC and its working group.
- Promote active participation of ASC member entities.
- Guide the development of the Durban Aerotropolis.
- Oversee the implementation of the Durban Aerotropolis Strategy by DTPC.
- Work closely with regional airports and Durban Aerotropolis Steering Committee (ASC).
- Investment Promotion
- Source funding for Aerotropolis.

6.2.1.2   Aerotropolis Steering Committee

The Aerotropolis Steering Committee shall be a technical body chaired by the Head of Department for EDTEA or his designate. The ASC will be responsible for providing oversight to the implementation of the IAS. EDTEA Aerotropolis unit will offer secretarial services to the ASC on matters of Aerotropolis. The ASC will work closely with DTPC and review the work of the working groups. The Aerotropolis Steering Committee will be responsible for the following:

- Establish working groups in line with strategic levers to facilitate and support the DTPC in those affected areas.
- Signing of Memorandum of Understanding (MoUs) amongst all stakeholders.
- Provide overall oversight and support on development of the Durban Aerotropolis.
- Provide operational support through its 10 working groups.
- Dispute resolution amongst stakeholders.
- Ensure stakeholders work together as a single entity.
- Establish ad-hoc task teams to unlock bottlenecks and ease bureaucratic red tape.
- Lobby provincial and national government to facilitate funding of specific projects.
- Participate in national governmental forums like SIP 2.
- Participate in and support investment promotional activities.

6.2.1.3   Dube Trade Port Corporation

- Implementation of the Durban Aerotropolis Strategy in conjunction with KZN EDTEA, the Aerotropolis Steering Committee and working groups.
- Work with EDTEA Aerotropolis unit in developing the Aerotropolis Master Plan and its implementation plan and development programmes.
- Implement any Aerotropolis initiatives by EDTEA.
- Implement the SEZ incentive programme in all qualifying business clusters.
- Implement the airlift strategy in conjunction with the Committee and KZN EDTEA.
- Collaborate with the telecommunications companies, internet service providers and the national Department of Communications in developing an advanced telecommunications infrastructure.
- Develop and implement the Aerotropolis-wide smart city solution.
- Develop programmes to attract and retain major national and multi-national corporations to locate their national and regional offices within the Aerotropolis, using incentives like those outlined in the SEZ Act.

- Collaborate with municipalities and provincial government in spatial planning in an integrated approach.
- Review the master plan to align to changing conditions and strategic direction.
- Development of relevant knowledge support and human capital.
- Promote inclusive economic growth ensuring benefits spill over to the marginalized communities within the Aerotropolis.
- Place branding, communication, marketing and positioning.
- Development planning should focus on the aesthetic and social climate in the immediate airport area.
- Guide land-based transport planners (road and rail) on the Aerotropolis needs for seamless integration with air transport.
- Influence the IDP's of stakeholder municipalities in planning for infrastructure investments in water, electricity, roads, sewerage, etc. to support Aerotropolis development.
- Manage the sustainability of the Aerotropolis development.

6.3 Resource Allocation

If the KZN provincial government is to accomplish its objectives of implementing this strategy, the executive council must allocate sufficient resources necessary for the development of the Durban Aerotropolis. The deployment of these resources must be done in accordance with an integrated action plan that will be centrally coordinated by the Aerotropolis Unit. It is proposed that a provincial **Aerotropolis budget** be established to fund the infrastructural requirements. The proposed budget will also go towards the funding of the Aerotropolis Master plan. Stakeholder entities must also allocate resources in areas that fall under their authority. The resources will be required in the following categories:

- **Infrastructure Budget**- Global Aerotropoli best practice shows that countries that have successfully implemented the Aerotropolis strategy invested substantial resources in infrastructure projects. KwaZulu-Natal Aerotropolis is no exception, infrastructure programmes in road, rail, broadband, electricity, water and sanitation will be paramount to the success of the project. Implementing stakeholders must also set resources towards Aerotropolis programmes. The provincial Cabinet must approve an Aerotropolis budget for implementation of various infrastructure programmes identified above.
- **Human Capital** – Implementation requires the deployment of skilled personnel towards various Aerotropolis programmes. KZN Government and stakeholder entities will have to make provision for the requisite skills to implement Aerotropolis programme.
- **Facilities** – There will be a need for dedicated and fully equipped office infrastructure for the employees that will be dedicated to the projects.

In order to ensure optimum utilisation, the monitoring and evaluation must incorporate the review of effectiveness and efficiency of the deployment of these resources.

6.4   Internal Administrative Support

The strategic vision of implementing the Durban Aerotropolis requires the support of robust internal administrative systems to achieve operational efficiency. These internal systems will include the following:

- Policies and procedures to establish desired types of activities.
- Information systems to provide strategy-critical information on a timely basis;
- Inventory and materials management; and
- Customer service.

The systems must support the management process and monitor strategic progress.

6.5   Aerotropolis Investment Strategy

An Aerotropolis investment strategy is required for the following reasons:

- Identify an anchor investors in the Aerotropolis region, particularly the Airport city;
- Devise a package of incentives for companies to locate in the Airport city;
- Address economic empowerment- balance between domestic and international investment;
- Government support;
- Reduce set up related red tape;
- Investment protocol to assist investors.

The success of other international Aerotropoli was hinged primarily on securing anchor investors in SEZs and the general Airport city (property). A good example is Songdo International Business District (IDB), an Aerotropolis in Incheon, South Korea. Gail International, an American company was secured to develop Sogndo IDB. Since early 2005, the company has invested heavily in buildings, ranging from conference centres, offices, hotels and residential.

While the SEZs will provide a package of incentives for manufacturing oriented companies, the provincial government must develop a reward and incentive program that covers other Aerotropolis critical sectors. Such incentives could be used to attract international hotel brands, schools and other companies. The incentives could also be in the form of reduced municipal rates. Furthermore an improvement in air services and route development at KSIA would make ACSA a much more active participant and would go to the extent of allocating its own resource to this Aerotropolis development program.

KZN Government will therefore have to answer the "What's in it for me?" question from each stakeholder. Any stakeholder that will not stand to benefit from this process would not want to get involved, neither should its participation be compelled. The incentive and rewards system should be such that stakeholder partners get involved out of their own free will. Again the rewards and incentives should be included in the monitoring and evaluation system and be celebrated every time they are achieved. These incentives will also have to be extended to individual employees involved, subject to each entity's own incentive and rewards scheme.

6.6   Shaping Organisational Culture to Fit the Strategy

The biggest obstacle of strategy implementation process is dealing with resistance to change. The implementation of the Durban Aerotropolis Strategy is seemingly impossible without incorporating some change management exercises in the process. The first organisation that

needs to undergo change in the implementation of the Aerotropolis programme is EDTEA and its entities. The key areas of change include, *inter-alia*, the following:

- New Aerotropolis unit
- Integrated planning
- Entity oversight, monitoring and evaluating the implementation of the Aerotropolis and operationalisation of the Aerotropolis Steering Committee.
- Implementation of high impact projects
- Ensuring realignment with strategic direction of Aerotropolis development.

6.7   Strategic Leadership

The development of an Aerotropolis requires strong political will. In the case of KZN, a strategic intent on the part of the executive council is imperative. The political champion of the Aerotropolis resides with the MEC for EDTEA. Strategic leadership in this case requires commitment to the implementation of the strategy and ensuring stakeholder coordination. It also involves use of political power to influence decision making and building stakeholder consensus in implementing the strategy.

The strategic leadership at provincial government level has to reach out to other political leadership at municipal level. The relevant stakeholder leadership for municipalities include mayors, executive committee members responsible for economic development and municipal managers. For corporatized entities, chairpersons of the boards and CEOs provide the strategic leadership necessary for the implementation of the KZN Integrated Aerotropolis Strategy.

7 AEROTROPOLIS DEVELOPMENT PROGRAMME – ACTION PLAN

Table 7: Integrated Aerotropolis Strategy Implementation Framework

Programmes	Proposed Projects	Resp. Entity/ Entities	Timelines and Phasing: 2014 to 2030			
			'14	'15 – '20	'20 – '25	'25 – '30
Organisational Structure	Organisational restructuring, design and establishment of Aerotropolis Unit, Aerotropolis Steering Committee and its working groups.	EDTEA	■			
	Restructuring of DTPC mandate and DTP Act in relation to KZN IAS vision.	EDTEA, DTPC	■			
Master Plan	Develop an Integrated Aerotropolis Master Plan which addresses the following: ■ Economic Aspects ■ Institutional Aspects ■ Physical Aspects- Natural and Built ■ Social Aspects ■ Airport City plan and model The Master plan must also cover the following critical issues: ■ Aerotropolis footprint/ Spatial plan ■ Land use (industrial, agriculture, residential, recreation) ■ Nodal and corridor development (Transport) plan ■ Infrastructure (water, sanitation, road, rail, Broadband, electricity) plan ■ Environmental plan ■ Investment strategy ■	EDTEA, DTPC & Partners	■	■		

Category	Activity	Responsible					
	Compile a consolidated infrastructure Budget	DTPC, EDTEA and Stakeholders	■	■			
	Plan and develop a Terminal Nexus Airport City within a 5 minute walking radius of the KSIA Terminal Building	KSIA	■	■			
	Pietermaritzburg Airport Master Plan	Msunduzi	■	■			
	Review of the KSIA Master Plan	KSIA	■	■			
Air Services and Route Development	Develop and implement an Airlift Strategy for KZN	EDTEA, DTPC, , KSIA, TKZN	■			■	■
	Hosted Airline Program at World Routes 2015	EDTEA, DTPC,	■	■			
	Extension of Bravo Taxiway – 46,500 square metres	KSIA	■	■			
	Code F Stands (x2) – 13,500 square metres	KSIA	■	■			
Integrated and Coordinated Spatial Planning	Develop an Integrated Aerotropolis Spatial Development Framework	eThekwini, DTPC, iLembe	■	■			
	Develop a land use plan for the Aerotropolis.	eThekwini, DTPC, iLembe	■	■			
	Conduct a land audit to determine ownership of all Aerotropolis land parcels.	eThekwini, DTPC, iLembe	■				
	Pietermaritzburg Airport Precinct Plan	Msunduzi	■	■			
	Map out economic and industrial clusters.	eThekwini, DTPC, iLembe, TIKZN	■	■			
	Commission an Environmental coping for the Aerotropolis	EDTEA, DTPC	■	■			
Equitable and Inclusive Growth	Develop an Aerotropolis SMME Participation Plan.	EDTEA	■				
	Develop EPWP programme for Aerotropolis.	EDTEA	■				
	Develop plan for Employment Tax Incentive scheme.	EDTEA	■				
	Develop a skills development plan for SMMEs.	EDTEA	■				
	Convene an SMME workshop on Aerotropolis opportunities.	EDTEA	■				
	Develop an economic transformation plan	EDTEA	■	■			

	Inclusion of black owned enterprise development opportunities in new land developments	EDTEA				
Business Growth and Development	SEZ Implementation Plan for the Airport City	EDTEA, DTPC				
	Package a consolidate suite of incentive packages: SEZ, Employment Tax, Jobs Fund, etc.	EDTEA, DTPC				
	Establish policies and processes to fast-track new development applications with criteria in respect of sites within the greater Aerotropolis.	eThekwini ,EDTEA				
	Investment Promotion Road shows	EDTEA, TIKZN				
	Develop an Investment Promotion Plan	EDTEA, TIKZN				
	Retail Tourism – Develop a discount and duty-free retail program in partnership with the major retailers to benefit business, leisure and sport tourists from priority markets in line with the route development	TKZN				
	Establish a 'one stop shop' for regulatory applications within the Airport	ETM/KDM/EDTEA				
	Samsung Investment at DTP (R1 billion)	DTPC, TIKZN				
	Condom Manufacturing at DTP (R100 million)	DTPC, TIKZN, SA Health, HBM				
	Tilapia Fish Farming at DTP (R10 million)	Isiphephe, DTPC, Ethekwini				
	Diamond Processing Hub at DTP (R200 million)	Trans Hex, DTPC, REDIS, TIKZN, Afrokwazi				
	Halaal Hub at DTP	DTPC, TIKZN				
	Industrial and Logistics Park at DTP					
	Office and Business Park at DTP					
	Automotive Supplier Park in Durban South	EDTEA, Ethekwini				
	Ballito Convention Centre, Hotel and Office Development	ILembe				
	Mr Price Distribution Centre	Mr Price, TCCA, Keystone Investments				
	Isibaya Mixed Use Development – Residential, Hotels, Commercial, etc.	Tongaat				

Category	Project	Responsible					
	Toyota Auto Body – Minibus Taxi Manufacturing	Toyota	🟩				
	Waterstone Lifestyle Estate	Thanda Group	🟩				
	Westbrook Mixed Used Development	Tongaat	🟩				
	Zimbali Lakes – Lifestyle and Resort	Tongaat, IFA	🟩				
	Additional Offices at KSIA – 500 square metres at KSIA	KSIA	🟩	🟩			
	Conference Facility – 500 square metres at KSIA	KSIA	🟩	🟩			
	Additional Parking Bays at KSIA – 450 car rental, 400 staff	KSIA	🟩	🟩			
	Hotel Development at KSIA	KSIA	🟩	🟩			
	Petrol Station at KSIA	KSIA	🟩	🟩			
	Compensation Industrial and Business Estate	KwaDukuza/ Ilembe	🟩	🟩			
	Wewe Driefontein Mixed Use Development	KwaDukuza/ Ilembe	🟩	🟩			
	Greenlands New Town Centre	KwaDukuza/ Ilembe	🟩	🟩			
	Red HUB Renewable Energy Development (Research and Development including Technology Transfer)	KwaDukuza/ Ilembe	🟩	🟩			
	KSIA – Ballito light rail system	KwaDukuza/ Ilembe	🟩	🟩			
Knowledge Support and Human Capital	Establishment of an Aerotropolis Institute to serve as a centre of excellence for a new generation of Aerotropolis managers for the whole continent of Africa.	EDTEA	🟩				
	Perform a skills demand/supply analysis.	EDTEA	🟩				
	Develop a programme to monitor skills demand and supply.	EDTEA	🟩				
	Develop educational programs for specialised skills in line with the demands of the Aerotropolis development	EDTEA	🟩				
	Technology Hub in the Airport Precinct	Msunduzi, DUT, UKZN	🟩	🟩	🟩		
	Development of the New King Edward VIII Academic Hospital	DoH					
	DUT / University of Technology Campus	KwaDukuza/ Ilembe					
Integrated	Develop an Integrated Transport Plan.	KZNDOT, eThekwini	🟩				

Multimodal Transport Networks	Airport Rapid Rail Transet.	PRASA				
	Develop corridor plan linking rural areas and townships.	KZNDOT				
	Develop a port-airport synergy plan	TNPA, EDTEA				
	Develop an intelligent traffic management system.	eThekwini, KZNDOT				
	Initiate operations of a bus link from KSIA to Umhlanga Town Centre and Ballito	Ethekwini Ilembe				
	Implement existing unfunded road upgrade projects located along N2 and N3 corridors within 1 hour travel time radius of KSIA	KZNDOT				
	Key road infrastructure upgrades to relieve traffic congestion and improve travel times to Rural Hubs	KZNDoT				
	Upgrade of Ushukela Highway	KZNDoT				
	Eastern Arterial (from R102 to uShukela Highway)	ETM/KZNDoT				
	"Dube West Arterial" (from M41 to R102)	ETM				
	Western Bypass (From R102 at airport to Mhlali)	KZNDoT				
	New Interchange on N2 at Frasers Treatment works with arterial linking M4 to R102	KZNDoT/ SANRAL				
	Upgrade of Ushukela Highway	KZNDoT				
	Durban Dig-out Port	Transnet NPA				
	Durban Port Expansion – Pier 1 & 2 Deepening	Transnet NPA				
	Inland Port/Hub Terminals	NDoT, KZNDoT				
	Signalling: Bombadier Africa Alliance	PRASA				
	Rolling Stock Fleet Renewal Programme – KwaMashu/Umlazi Corridor	PRASA				
	Depot Modernisation Programme – Springfield and Durban Yards	PRASA				
	Develop Rapid rail link to KSIA/DTP (Dbn – KwaDukuza)	PRASA				
	Improve Passenger Rail Services (see attached)/Modernisation strategy	PRASA				

Category	Activity	Responsible				
	Undertake next phase of process for new stations along North Coast corridor (detailed design and implementation)	PRASA		✓	✓	
	Station Upgrades and Modernisation for New Fleet – Ethekwini Metro Area and along the North/South Corridor	PRASA		✓	✓	
	Road link between Tongaat and Pietermaritzburg through P25 or R614	KZNDOT, SANRAL			✓	
Place Marketing and Tourism	Develop the Aerotropolis Place Brand Plan in preparation for launch at World Routes 2015.	EDTEA, DTPC, TIKZN, TKZN	✓			
	Develop a corporate identity and a brand manual.	EDTEA, DTPC	✓	✓		
	Design and produce marketing collateral.	DTPC	✓			
	Develop a brand marketing strategy.	EDTEA	✓			
	Test marketing of brand imagery with target market.	EDTEA, DTPC		✓		
	Develop a PR and Communications Plan	EDTEA, DTPC	✓			
	International launch of Sibaya Nodes 1 and 5 and other Tongaat Hulett land assets	TONGAAT/TIKZN/ETM/EDTEA?DTI	✓			
	NUMZ Adventure Island – Tinley Manor, KwaDukuza	IDC, TIKZN, KwaDukuza		✓	✓	✓
	Nonoti Beach Resort in KwaDukuza (R360 million)	Inqaba, TKZN, IDC, Ilembe, KwaDukuza, EDTEA		✓		
	Durban Passenger Cruise Terminal	Transnet NPA		✓		
	Drakensberg Cable Car in Okhahlamba	EDTEA		✓		
	Blythedale Coastal Resort and Mixed Use Development	Private		✓		
	Suncoast Expansion – Gaming and Entertainment	Tsogo Sun		✓		
	Thukela Health and Wellness Centre – Private Hospital, Step-down Facility, Medical Treatment, etc.	Private		✓		
Advanced Telecommunications Infrastructure	Develop a mobile and fixed broadband plan.	EDTEA, DTPC, eThekwini, iLembe	✓			
	Roll out a high speed fixed and mobile broadband network in the airport city	DTPC, eThekwini, iLembe	✓			
	Conduct a survey of pricing structures of various	DTPC	✓	✓		

Category	Action	Responsible				
	suppliers nationally.		✓	✓		
	Develop and implement a smart city master plan for the Aerotropolis.	DTPC, COGTA, DTPC, iLembe, eThekwini	✓	✓	✓	✓
Infrastructure and Engineering Services	Develop and implement an integrated infrastructure plan identifying gaps and funding requirements.	DTPC, iLembe, eThekwini	✓	✓		
	Develop a sub-IDP for the airport city	DTPC, iLembe, eThekwini	✓	✓		
	Develop a funding plan for priority infrastructure in the airport city, for inclusion in the consolidated infrastructure budget	DTPC, iLembe, eThekwini	✓	✓		
	Supporting Infrastructure for TradeZone 2	DTPC	✓	✓		
	Supporting Infrastructure for AgriZone 2	DTPC	✓	✓		
	Provision of bulk water into Airport city	ETM/Umgeni Water			✓	
	New uMdloti Regional Waste Water Treatment Works	ETM			✓	
	New Dube Intake (Electrical major Sub-Station)	ETM/Eskom			✓	
	Expansion of Southern Waste Treatment Capacity at KSIA (from 1 to 22 mega litres per day)	KSIA	✓	✓		
Sustainability	Develop and implement an Environmental Protection Plan	EDTEA, DTPC	✓	✓		
	Consolidate all Environmental Impact Studies done to date.	EDTEA, DTPC	✓	✓		
	Develop a responsible and sustainable tourism plan	EDTEA, TKZN	✓	✓		
	Climate Resilience Framework	ETM/DTP/TONGAAT		✓		
	Develop a Renewal Energy Park	EDTEA		✓		
	New Dam on Thukela River to Generate Hydro-energy	EDTEA		✓		

8 Are we Getting There? (MONITORING AND EVALUATION)

8.1 Monitoring and Evaluation

It is said that what cannot be measured cannot be managed and what is measured gets done! Whilst monitoring and evaluation can be looked at as two sides of the same coin, they are in fact, two distinct sets of organisational activities that are related but not identical.

Monitoring is the systematic collection and analysis of information as a project progresses. It is aimed at improving the efficiency and effectiveness of a project or organisation. It is based on targets set and activities planned during the planning phases of work. It helps to keep the work on track, and can let management know when things are going wrong. If done properly, it is an invaluable tool for good management, and it provides a useful base for evaluation. It will enable the Aerotropolis Unit to determine whether the resources made available are sufficient and are being well deployed, whether the capacity therein is sufficient and appropriate, and whether the project outcomes are as planned.

Evaluation is the comparison of actual project impacts against the agreed strategic plans. It looks at what the Aerotropolis Unit will set out to do, what it has accomplished, and how it has been accomplished. The envisaged evaluation over the process of developing the Aerotropolis will be formative, taking place during the life of a project and the delivery vehicle (Dube Trade Port), with the intention of improving the strategy and way of functioning of the project and ADC. Periodic evaluation of the progress in developing the Durban Aerotropolis could take place biannually and results thereof will guide future day-to-day management and strategy. It is recommended that both monitoring and evaluation be external to the ADC to foster an independent review. The Aerotropolis Unit is best suited to conduct this exercise.

The Aerotropolis development Monitoring and Evaluation exercise will focus on measuring the following:
- Efficiency
- Effectiveness
- Impact

Efficiency will indicate whether or not the input into the work is appropriate in terms of the output. This could be input in terms of money, time, staff, equipment, etc.

Effectiveness will measure the extent to which the Aerotropolis development programme achieves the specific set of objectives.

Impact will indicate whether or not the Aerotropolis development made a difference in the KZN economy and consequently on the lives of the majority of citizens.

The Need for Monitoring and Evaluation

Plans are essential but they are not set in concrete (totally fixed). If they are not working, or if the circumstances change, then plans need to change too. Monitoring and evaluation are both tools that will help the EDTEA Aerotropolis Unit know when the programmes are not working, and when circumstances have changed. They will give the Unit the information it needs to make decisions about the Aerotropolis programmes, as well as changes that are necessary in strategic plans. Through this, the constants remain the pillars of the strategic framework: the problem analysis, the vision, and the values of the whole Department. Everything else is negotiable.

Planning for the Durban Aerotropolis Monitoring and Evaluation

Monitoring and evaluation should be part of the planning process. It will be very difficult to go back and set up monitoring and evaluation systems once the implementation process has started. It is therefore critical that the gathering of information about performance and in relation to targets is done beforehand. The first information gathering that will be undertaken will be to measure performance, which will be used to assess improvements over time.

Strategic Goals

In accordance with the KZN Government's Vision 2030 it became necessary to develop a set of strategic goals for the main programmes of developing the Durban Aerotropolis. These measurable indicators or goals will represent a balance scorecard for the Durban Aerotropolis development. The indicators below have been developed through the help of stakeholders and from various KZN reports. There are still a number of strategic goals that must still be determined (denoted by TBD) and this will be done during the master planning process. Other indicators will have to be specifically researched and agreed with the relevant stakeholder entities.

8.1.1   Strategic Lever I: Growing Air Services and Connectivity

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Passenger Air Lift (Million Annual Passengers)	KSIA, DTPC	4,465,088	4,532,104	5,367,986	6,696,306	8,546,372
Cargo Air Lift (in metric tonnes)**	DTPC	TBD	TBD	TBD	TBD	TBD
Aircraft Movement	KSIA	49,415	48,715	56,029	70,557	90,051
No of Direct Routes (Africa)	DTPC, KSIA	4	4	6	6	7
No of Direct Routes (Long Haul)	DTPC, KSIA	1	1	4	6	7

** The cargo airlift will be determined in consultation with DTPC, KSIA, airlines and the supply chain operators in the area.

8.1.2 Strategic Lever II: Integrated and Coordinated Spatial Planning

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Number of people living within a 30 minute / 60 minute travel radius of KSIA**	EDTEA, Ethekwini, DTPC, Ilembe, CoGTA	TBD	TBD	TBD	TBD	TBD
Number of new serviced business sites released for development within a 30 minute / 60 minute travel radius of KSIA**	EDTEA, Ethekwini, DTPC, Ilembe, CoGTA	TBD	TBD	TBD	TBD	TBD

** These targets will be determined at part of the Aerotropolis master plan.

8.1.3 Strategic Lever III: Equitable and Inclusive Growth

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
New Full-time Jobs Created**	PlanCom, EDTEA	TBD	TBD	TBD	TBD	TBD
Number of SMME's Created/Sustained**	PlanCom, EDTEA	TBD	TBD	TBD	TBD	TBD
Increase in Household Income**	PlanCom, EDTEA	TBD	TBD	TBD	TBD	TBD
Gini-coefficient	PlanCom, EDTEA	TBD	TBD	TBD	TBD	TBD
BBBEE and CSRI Score Cards of Local Firms**	PlanCom, EDTEA	TBD	TBD	TBD	TBD	TBD
Number of Emerging Contractors Trained*	KZN Public Works	200	400	450	600	600
Number of Contracts Awarded to Emerging Contractors*	KZN Public Works	284	411	900	1,200	2,000
Cumulative of Work Opportunities Created through the EPWP and CWP*	KZN Public Works	483,921	424,088	725,340	870,408	957,449

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area
** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.4 Strategic Lever IV: Business Growth and Development

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
No. of New Businesses**	TIKZN, DTPC, Ethekwini, EDTEA	TBD	TBD	TBD	TBD	TBD

Occupied Lettable Floor Space**	DTPC, Tongaat	TBD	TBD	TBD	TBD	TBD
Occupancy on Available Space (%-age)**	DTPC, Tongaat	TBD	TBD	TBD	TBD	TBD
New Investments – Local (in ZAR)**	TIKZN, DTPC	TBD	TBD	TBD	TBD	TBD
New Investments – FDI (in ZAR)**	TIKZN, DTPC	TBD	TBD	TBD	TBD	TBD
Ports Capacity in million TEUs*	Transnet	2.5	3.2	6.0	8.8	9.5

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area

** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.5 Strategic Lever V: Knowledge Support and Human Capital

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Literacy Levels**	KZN Education	TBD	TBD	TBD	TBD	TBD
Labour Absorption Rate**	EDTEA	TBD	TBD	TBD	TBD	TBD
No. of Employed Graduates in Target Sectors**	EDTEA	TBD	TBD	TBD	TBD	TBD
Skills availability to businesses wanting to locate in KZN**	EDTEA	TBD	TBD	TBD	TBD	TBD
Unemployment in the Aerotropolis Study Area**	EDTEA	TBD	TBD	TBD	TBD	TBD
SA Patents and Designs Registered by KZN Entities and Individuals*	EDTEA	222	237	248	260	271
Registered Professional Engineers in KZN*	EDTEA, CESA	1,627	1,855	1,920	2,001	2,115
Graduates in Education, Science, Engineering and Technology*	OTP	9,608	9,900	10,200	10,500	11,000
Number of PhD Graduates*	OTP	187	190	200	220	250
Number of Youths Supported by National Skills Fund, SETAs and Youth Programs*	OTP	45,253	46,000	50,000	60,000	70,000

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area
** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.6 Strategic Lever VI: Integrated Multimodal Transport Networks

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Port to Airport Cargo – (tons)**	Transnet NPA, DTPC	TBD	TBD	TBD	TBD	TBD
Airport Vehicular Movement**	DTPC, Ethekwini, KZNDOT	TBD	TBD	TBD	TBD	TBD
High Occupancy Vehicle Movement at Airport**	DTPC, Ethekwini, KZNDOT	TBD	TBD	TBD	TBD	TBD
Minimum travel times to various key nodes within the Aerotropolis**	DTPC, Ethekwini, KZNDOT	TBD	TBD	TBD	TBD	TBD
Durban Cargo Lift - Ratio of Road to Rail	Transnet FR, NPA	5.5:1	3.5:1	3:1	3:1	3:1

** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.7 Strategic Lever VII: Place Marketing

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Visitors from Target Markets[13] **	Ethekwini, TKZN		TBD	TBD	TBD	TBD
- Germany	Ethekwini, TKZN	35,000		56,000	TBD	TBD
- United Kingdom	Ethekwini, TKZN	75,000		114,000	TBD	TBD
- Netherlands	Ethekwini, TKZN	17,000		32,000	TBD	TBD
- United States	Ethekwini, TKZN	42,000		67,000	TBD	TBD
- China	Ethekwini, TKZN	11,000		14,000	TBD	TBD
- India	Ethekwini, TKZN	19,000		34,000	TBD	TBD
International Holiday Visitors	Ethekwini, TKZN	269,000		TBD	489,000	TBD
MICE Events – per annum	Ethekwini, TKZN	24		TBD	36	TBD
ICCA Ranking (Number of International Conferences per Annum)	Ethekwini, TKZN	157		TBD	100	TBD
Cruise Liner Visits – per annum	Ethekwini, TKZN	58		TBD	150	TBD
Total Visitors – per annum	Ethekwini, TKZN			5,000,000	TBD	TBD
International Visitors – per annum	Ethekwini, TKZN			1,000,000	TBD	TBD
Global City Brand Index (Ranking of Durban)**	Ethekwini, TKZN		TBD	TBD	TBD	TBD
Number of Cruise Ship Operations at Durban Harbour*	Transnet	2	3	4	4	4

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area
** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

Strategic Lever VIII: Advance Telecommunications Infrastructure

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Internet Usage – Fixed (%-age)**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD
Internet Usage – Mobile (%-age)**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD
No. of Smart Mobile Phones**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD

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[13] Source: Ethekwini Strategic Plans

Fibre Connectivity (in KM's)**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD
Average Internet Speed (Mbps)**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD
No. of Household with Access to Internet**	DTPC, EDTEA, Ilembe, Ethekwini	TBD	TBD	TBD	TBD	TBD
Fibre Optic Cable Rolled Out in Km's*	DTPC, EDTEA, Ilembe, Ethekwini	11,800	15,000	16,000	17,000	18,000
Number of Points of Presence (POPs)*	DTPC, EDTEA, Ilembe, Ethekwini	8	40	51	70	80
Minimum Broadband Speed in Mb per second and % coverage*	DTPC, EDTEA, Ilembe, Ethekwini	0,256	5 (50%)	5 (90%)	10 (50%)	10 (100%)

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area
** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.8 Strategic Lever IX: Infrastructure and Engineering Services **(Municipalities, DTPC, KSIA, CoGTA, KZN Human Settlements, KZN Public Works, Transnet, PRASA, Tongaat, etc.)**

Quality Indicator	Resp. Entity(ies)	Base Line 201	2015	2020	2025	2030
New Electricity Connections**		TBD	TBD	TBD	TBD	TBD
Road Upgrades (in Square KM's)**		TBD	TBD	TBD	TBD	TBD
Water resources per capita in cubic metres*	DWAS, CoGTA	917	1,000	1,000	1,000	1,000

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area
** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

8.1.9 Strategic Lever X: Sustainability **(EDTEA, DTPC, KSIA, Municipalities, KZN Agriculture, etc.)**

Quality Indicator	Resp. Entity(ies)	Base Line 2014	2015	2020	2025	2030
Water Quality**	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD
Crime Rate**	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD
Use of Renewable Energy**	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD
Air quality levels**	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD
Noise Levels around Airport**	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD
Recycling Rate (percentage diverted	EDTEA, Ethekwini, Ilembe, DTPC	TBD	TBD	TBD	TBD	TBD

from waste stream**						
% Blue Drop Rating*	DWAS Ilembe, Ethekwini, EDTEA	65%	75%	80%	85%	90%

* Targets for the whole province as per the PGDP 2014 and will need to be refined to reflect the Aerotropolis area

** In all literature review the reports covered could not provide this information. A study will be undertaken to determine these strategic goals.

These indicators are by no means exhaustive; and they will be tested with relevant stakeholders. The indicators provide the framework to the monitoring and evaluation system for the development of the Durban Aerotropolis over the period to 2030. The initial process of building the monitoring and evaluation system will be to gather all data (2013 baseline and forecasts/targets for the following 5-year cycles). Once the 5-year targets and forecasts have been set, the next step will be to break down these forecasts and targets to annual and then biannual timeframes.

Data Gathering Methodology

Once the forecasts and targets have been set for all indicators, the next step will be to determine how the information will be gathered at monitoring and evaluation intervals (which will be biannually). The methods for information collecting need to be built into the implementation plan. The gathering of information should aim to have a steady stream of information flowing into the project about the work and how it is done, without overloading anyone. The information that will be collected must be meaningful.

Sources of information will mainly come from normal reports of Aerotropolis stakeholders. However, sometimes there will be a need to use special tools that are simple but useful to add to the basic information collected in the natural course of work. Some of the more common ones are:

- Case studies
- Recorded observation
- Diaries
- Recording and analysis of important incidents (called "critical incident analysis")
- Structured questionnaires
- One-on-one interviews
- Focus groups
- Sample surveys
- Systematic review of relevant official statistics.
- Standard returns

Analysis of Information

The analysis of all information gathered should be about what the Unit wants to know about the progress in developing the Durban Aerotropolis. What the Unit wants to know is linked to what it thinks is important. In development work, what it think is important is linked to the broader values of the KZN Provincial Government. Some of the guiding principles include the following:

- Serving and empowering the disadvantaged;
- Changing society, not just helping individuals;
- Sustainability;
- Efficient use of resources.

   The first thing the Unit needs to know is: What is being done and how it is being done to meet the requirements of these values? In order to answer this question, the monitoring and evaluation system will have to give information about:

- Who is benefiting from the development of the Aerotropolis? How much are they benefiting?
- Are beneficiaries passive recipients or does the process enable them to have some control over their lives?
- Are there lessons in what is being done that have a broader impact than just what is happening on the project?
- Can what is being done be sustained in some way for the long-term, or will the impact of the project cease come 2030?
- Is the project getting optimum outputs for the least possible amount of inputs?

9 STRATEGIC IMPERATIVES FOR DURBAN AEROTROPOLIS

As is the case with any project, the test of whether or not IAS is a good strategy will largely be at implementation stage. Whilst every effort has been made to draw on the international experiences of developing similar strategies for other global Aerotropoli, there is an inherent risk that the KZN conditions may not be ready for the development of an Aerotropolis. It is precisely for this reason that the following strategic imperatives have been identified for a successful implementation of the KZN Integrated Aerotropolis Strategy:

- *Full Stakeholder Commitment* – All stakeholders that have been identified for representation at the Steering Committee will have to be fully committed to the process of implementing this strategy. Such commitment will have to be reduced to actual signing of a MoU that will bind their participation. These stakeholder entities will have to pass internal resolutions of committing themselves to the implementation process. For instance, the three municipalities identified will have to take reports to their full councils for adoption and approval. Other entities will have to pass board resolutions to this effect.

- *Dedicated Resources* – The establishment of an Aerotropolis Development Corporation is one imperative that is too important to ignore. The Durban Aerotropolis cannot be developed through committees with implementation left to individual stakeholder entities. The feasibility of establishing this ADC will have to be tested as a matter of urgency.

- *Provincial Government Support* – Establishing an SPV does not absolve the KZN Government of its responsibility to develop the Aerotropolis. In fact, a dedicated Aerotropolis Unit will be created to carry out tasks that will include, inter alia, the establishment of the Aerotropolis Development Corporation (ADC), monitoring and evaluation, impact studies, etc. This Unit will have to be supported by HoD with the corresponding MEC being the political champion.

- *National Government Buy-in* – The Aerotropolis Steering Committee will have to seek the support of various national government departments, which include NDOT, DPE, the DTI, EDD, Treasury and all SOE's reporting to these departments. One other forum that has to be sold on Durban Aerotropolis is the SIP 2 Forum that includes the competing Aerotropolis of Ekurhuleni. KZN needs to dispel the notion that there can only be one Aerotropolis in a country.

  - *Air Services, Connectivity and Business Development* – These issues have been dealt with extensively in Chapter 8 of this report. However it is worth reiterating the fact that the development and the economic growth of the Durban Aerotropolis hinge on growing air services, connecting and increasing investments, particularly in the airport city. Projects around this area will have to be prioritised.

There may be other strategic imperatives that will be identified, but they might well be linked to those articulated above.

10 CONCLUSION

The KZN Provincial Government is taking an important step in developing an Integrated Aerotropolis Strategy. If developed properly the Durban Aerotropolis has the potential to make a huge difference in the lives of the ordinary people of KwaZulu-Natal. Whilst the bulk of the economic growth and development will be concentrated in the Durban metropolitan area, the benefits thereof will be felt in some of the remote areas of KZN.

11 ANNEXURES

11.1 Annexure I: Glossary of Terms and Acronyms

- *ACSA – Airports Company of South Africa*
- *ADC – Aerotropolis Development Corporation*
- *Airport City – Area covering the location of KSIA and DTP*
- *B-BBEE – Broad-Based Black Economic Empowerment*
- *Crack Team – Committee established by KZN Treasury to develop the regional airport strategy*
- *DBN – Aviation code for KSIA*
- *DED – National Department of Economic Development*
- *EDTEA – KZN Department of Economic Development, Tourism and Environmental Affairs*
- *DoC – National Department of Communication*
- *DPE – National Department of Public Enterprises*
- *DTI – National Department of Trade and Industries*
- *DUT – Durban University of Technology*
- *EPWP – Expanded Public Works Programme of the National Department of Public Works*
- *FET – Further Education and Training*
- *HEI – Higher Education Institution*
- *HRD – Human Resource Development*
- *IATA – International Air Transport Association*
- *Icasa – Independent Communication Authority of South Africa*
- *ICC – Inkosi Albert Luthuli International Convention Centre*
- *ICT – Information Communication Technology*
- *KSIA - King Shaka International Airport*
- *Mbps – Mega-bytes per second*
- *MICE – Meetings, Incentives, Conventions and Events*
- *MoU – Memorandum of Understanding*
- *NDOT – National Department of Transport*
- *NDP – National Development Plan*
- *NUDC – Northern Urban Development Corridor, a spatial development framework of the eThekwini Municipality*
- *PPP – Public-Private Partnership*
- *PRASA – Passenger Rail Agency of South Africa*
- *SAA – South African Airways*
- *SANRAL – South African National Roads Agency*
- *SAPOA – South African Property Owners Association*
- *SEDA – Small Enterprise Development Agency*
- *SEZ – Special Economic Zone*
- *SIP 2 – Strategic Infrastructure Programme for the development of the Durban Gauteng corridor*
- *SITA – State Information and Technology Agency*

- *SMME – Small Micro Medium Enterprise*
- *SOE – State Operated Enterprise*
- *SPV – Special Purpose Vehicle*
- *UKZN – University of KwaZulu-Natal*
- *UniZulu – University of Zululand*
- *WEF – World Economic Forum*

11.2 Annexure II: Bibliography

Document	Commissioned By
The Dube Trade Port & King Shaka International Airport: Project Overview & Feasibility Analysis	Dube Trade Port
Dube Trade Port Evaluation System: A Socio Economic Impact Approach	Dube Trade Port
Policy on the Development of Special Economic Zones in South Africa	Department of Trade & Industry
IDZs' Readiness for SEZ Implementation	Department of Trade & Industry
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IATA 2012 Annual Review	International Air Transport Association

PRASA - KZN Regional Strategic Plan	Passenger Rail Agency of South Africa
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Corporate Strategy Review for TIKZN	TIKZN
Export Strategy for the Province of KZN	TIKZN / DEDT

11.3 Annexure II: Freedoms of the Air

The Freedoms of the Air are a set of commercial aviation rights granting a country's airlines the privilege to enter land in another country's airspace, formulated as a result of disagreements over the extent of aviation liberalisation in the Convention on International Civil Aviation of 1944, known as the Chicago Convention. The United States had called for a standardized set of separate air rights, which may be negotiated between states, but most of the other countries involved were concerned that the size of the U.S. airlines would dominate all world air travel if there were not strict rules. The Freedoms of the Air are the fundamental building blocks of the international commercial aviation route network. The use of the terms 'freedom' and 'right' only confer entitlement to operate international air services within the scope of the multilateral and bilateral treaties (air services agreements) that allow them.

The first two freedoms solely concern the passage of commercial aircraft through foreign airspace and airports and contrast with the remaining freedoms which concern airlines carrying people, mail and cargo internationally. The third and fourth freedoms allow basic international service between two countries. Even when reciprocal third and fourth freedom rights are granted, air services agreements may still restrict many aspects of the traffic, such as the capacity of aircraft, the frequency of flights, the airlines permitted to fly and the airports permitted to be served. The third freedom is the right to carry passengers or cargo from one's own country to another. The right to carry passengers or cargo from another country to one's own is the fourth freedom. Third and fourth freedom rights are almost always granted simultaneously in bilateral agreements between countries.

The fifth freedom allows an airline to carry revenue traffic between foreign countries as part of services connecting the airline's own country. It is the right to carry passengers from one's own country to a second country and from that country to a third country (and so on). An example of a fifth freedom traffic right is Emirates flight 2004 from Dubai to Brisbane (Australia) and onward to Auckland (New Zealand). Fifth freedom traffic rights are intended to enhance the economic viability of an airline's long haul routes, but tend to be viewed by local airlines and governments as potentially unfair competition to their primary (third and fourth freedom) international traffic rights. The negotiations for fifth freedom traffic rights can be lengthy because in practice the approval of at least three different nations is required[14]. For the purpose of this report,

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[14] ICAO

the discussion will be limited to the first five freedoms of the skies. All air traffic rights are explained in Table 8 and Figure 18 below.

Freedoms of the Air

Table 8a: Freedoms of Air

Air Traffic Rights		Examples
1st	The right to fly over a foreign country, without landing there	Toronto - Mexico City, as a Canadian company, overflying the USA
2nd	The right to refuel or carry out maintenance in a foreign country, without embarking or disembarking passengers or cargo	Toronto - Mexico City, as a Canadian company, but stopping for fuel in the USA
3rd	The right to fly from one's own country to another	Toronto - Chicago, as a Canadian company
4th	The right to fly from another country to one's own	Toronto - Chicago, as a US company
5th	The right to fly between two foreign countries during flights while the flight originates or ends in one's own country	Doha - Bangkok - Kuala Lumpur, as a company registered in Qatar
6th	The right to fly from a foreign country to another while stopping in one's own country for non-technical reasons	Dubai - Cairo - Paris, as an Egyptian company
7th	The right to fly between two foreign countries while not offering flights to one's own country	Kuala Lumpur - Jakarta, as an Italian company
8th	The right to fly between two or more airports in a foreign country while continuing service to one's own country	Chicago - New York City - Toronto, as a Canadian company
9th	The right to fly inside a foreign country without continuing service to one's own country	Beijing - Shanghai, as an Italian company

Source: ICAO

Table 8a: Freedoms of Air

Freedoms of the Air[15]

Figure 18b: Freedoms of Air
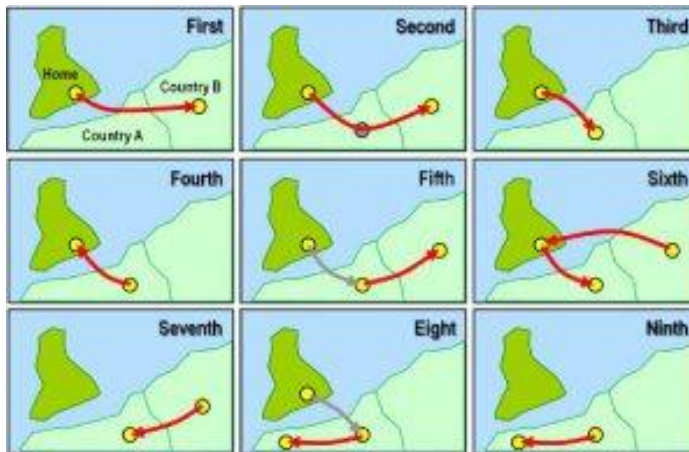
Source: ICAO

In order to protect the aviation industries of member states, the then Organisation of African Unity (OAU) facilitated in 1988 the signing of the Yamoussoukro Declaration (YD). The objectives of this Declaration are as follows:

⇒ Full-liberalization of the intra-African air transport services by means of eliminating restrictions on access, frequency, capacity and tariffs;

⇒ Free exercise of first, second, third, fourth and fifth freedom rights for passenger and freight air services by eligible airlines;

⇒ Ensure fair competition on a non-discriminatory basis;

⇒ Compliance with international safety standards.

At the African Union meeting of Ministers Responsible for Air Transport in Africa held in South Africa on May 19, 2005 they recommitted themselves to the full implementation of the YD.

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[15] Source: ICAO