

ADOPTED

BUILT ENVIRONMENT PERFORMANCE PLAN 2015-16



MAY 2015

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BEPP to EXCO Covering Report signed May 2015
IDP Review 2015-2016 adopted May 2015
SDF Review 2015-2016 adopted May 2015
EThekwini Housing Sector Plan adopted Jan 2012
EThekwini ITP 2010-11 to 2014-14 Annual Update adopted May 2013
Water Services Development Plan adopted March 2012
SDBIP

PART A - Introduction

PURPOSE

The purpose of the BEPP is to provide a single overview of eThekwini's current and planned investment into its built environment. The BEPP supports the core national policy objective of more compact cities that are Equitable, Efficient, and Prosperous.

APPROACH

The BEPP approach is to spatially target, integrate and align the spatial investment programs of the key sectors of the economy, transport and housing. ^[1] The BEPP is intended to be a reference point for national and provincial spheres and other key stakeholders to make informed decisions and investments in the built environment. The BEPP not only facilitates these investments, but is a compulsory pre-requisite for the disbursement of very significant DORA ^[2] allocations for numerous capital grants, namely the Urban Settlements Development Grant, the Integrated City Development Grant, the Human Settlements Development Grant, the Public Transport Infrastructure Grant, the Public Transport Operations Grant, the Integrated National Electrification Program, and the Neighbourhood Development Partnership Grant. Six of these are capital grants, and make up about 60% of eThekwini's Capital Budget, while the Public Transport Operations Grant appears in the Operating Budget.

DEFINITIONS OF INFRASTRUCTURE

The BEPP has "Infrastructure", in its broader meanings, as a central focus.

Though there is not a legislated definition of infrastructure, in practice it includes the production of all physical assets (land, engineering services, and buildings) that serve as the platform for economic, social, and residential activities. The NDP refers to infrastructure in this broader sense. At a more specific level, the Division of Revenue Act (DORA) 2014-15 makes numerous references to infrastructure in text and tables, in a wide range of capital grants, and over numerous social and technical sectors.

Infrastructure includes Core Infrastructure, Economic Infrastructure, Social Infrastructure, and Mixed Use. ^[3] The following are regarded as Infrastructure Projects: ^[4]

- Economic Infrastructure is the result of own investment and that of other spheres and the private sector in Land Production, Public Spaces, and Buildings for Industry, Retail, Office, Mining, Ports, Airports, Freight Systems, and Agriculture developments. Economic Infrastructure also includes PPP's and site-sharing where public and private investments will result in a range of public and private services being offered on the same site (e.g. commercial and social services being offered at transport interchanges).
- Social Infrastructure is the result of own investment and that of other spheres and the private sector (including households) in Land Production, Public Spaces, and Buildings for: Residential Uses; the provision of Municipal Social and Emergency Services, and; the provision of Other Government Services (particularly Safety & Security, all levels of Education and Health care, justice, Social Grants Pay-Points, Basic Recreation, clusters of Social Facilities, and Government Malls)

1 Guidance Note for the Built Environment Performance Plans for 2014-15. NT. Nov 2013

2 Division of Revenue Bill. Government Gazette No. 38458. Feb 2015

3 Guidance Note for the Built Environment Performance Plan 2015/16 – 2017/18. Oct 2014, National Treasury

4 Cities-PPF Policy Framework. NT and DBSA. Draft. Apr 2015

- Mixed Use Infrastructure includes projects aimed at accommodating a mix of Economic and Social uses, either vertically or adjacent to each other, in either Brownfields projects such as urban redevelopment, or in Greenfields locations.
- Core Infrastructure includes construction or expansion of: Sewer or Water Treatment Works, Sewer or Water Trunk Mains, Water Reservoirs, Pump Stations, Electrical Substations, Alternative Energy Installations, Freeway Interchanges, Road Bridges, Arterial and Collector Roads, Public Transport Routes and Facilities, and ICT networks, all aimed at social, economic or mixed uses.

The project cycles of all infrastructure projects include associated statutory planning, building and environmental approvals

FOCUS OF THE 2015-16 BEPP

The focus of the 2014-15 BEPP was on planning for spatial transformation. In 2015-16 the focus shifts to catalytic projects, and the development of informal settlements and other marginalised areas. ^[5]

RELATIONSHIP TO OTHER MUNICIPAL PLANS

The BEPP is intended to contribute to and enhance existing statutory plans, and it does not duplicate or replace them. The other statutory plans that relate this BEPP relates to are:

- The IDP
- Sector Plans for human settlements, transport, and economic development.
- The Long Term Development Framework
- The Spatial Development Framework
- The Capital Investment Framework (as defined by SPLUMA)
- The Medium Term Revenue and Expenditure Framework (MTERF)
- The Service Delivery and Budget Implementation Plans (SDBIP)

The BEPP is placed in between the SDF and IDP with an explicit focus on the social and economic infrastructure components of the built environment. ^[6]

BEPP PREPARATION PROCESS

The BEPP preparation process follows the annual municipal integrated development planning and budget cycle, and culminates with Council approval.

Accountability for preparing the 2015-16 BEPP rests with the Secretariat of the Integrated City Development Forum. It represents a collective of key municipal entities, and is co-chaired by two DCM's, and enjoys the support of the EtheKweni CSP Coordinator from NT. The Forum was deliberately and consciously used as the internal institution to develop the BEPP. That rationale is that integration begins at home, and that integrated analysis and decision-making will result in better-integrated development

For the production of this BEPP, the ICDG Forum focused on:

- Refinement of the UNS and Integration Zones
- Catalytic projects

5 Guidance Note for the Built Environment Performance Plans for 2014-15. NT. Nov 2013

6 Guidance Note for the Built Environment Performance Plans for 2014-15. NT. Nov 2013

MILESTONES FOR THE PREPARATION OF THE 2015-16 BEPP

MILESTONE	DATE
Meetings of the ICDG Forum	Monthly
Engagement with NDPP re UNS refinements	Ongoing
Engagements with departments to obtain BEPP inputs	Aug 2014 - Mar 2015
Engagements with NHS and HDA on catalytic projects	Oct - Nov 2014
Submission of the 1st Draft BEPP to the National Treasury	Nov 2014
Engagement with MOF on catalytic projects	Dec 2014 - Jan 2015
BEPP Review	Feb - Mar 2015
Comments on Draft BEPP	Apr 2015
Submission of Final Draft BEPP to Council	Apr - May 2015
Submission of the Approved BEPP to NT	May 2015

ADOPTION OF THE BEPP BY THE ETHEKWINI COUNCIL

The Draft BEPP 2015-16 was presented to and adopted by the Executive Committee on 26th May 2015, and was presented to and adopted by the Full Council on 27th May 2015. The IDP 2015-16 and the SDF 2015-16 were presented and adopted to the same structures on the same dates. Extracts from the minutes of these proceedings will be availed once they have been published.

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ACRONYMS

BEPP	Built Environment Performance Plan
BNG	Breaking New Ground
BoP	Back of Port
CBD	Central Business District
CBO	Community-Based Organisation
CIF	Capital Investment Framework
CMDA	Cato Manor Development Association
CMPR	Central Municipal Planning Region
CRU	Community Residential Units
CSIR	Council for Scientific and Industrial Research
CSP	Cities Support Program
DCM	Deputy City Manager
D'MOSS	Durban Metropolitan Open Space System
DBSA	Development Bank of South Africa
DCM	Deputy City Manager
DORA	Division of Revenue Act
DPSA	Department of Public Service Administration

DSW	Durban Solid Waste
DTP	Dube Trade Port
DWA	Department of Water Affairs
EIA	Environmental Impact Assessment
EMA	eThekweni Metropolitan Authority
EMF	Environmental Management Framework
EPWP	Expanded Public Works Programme
ETA	eThekweni Transport Authority
EWS	eThekweni Water Services
FAP	Functional Area Plans
FAR	Floor Area Ratio
GDP	Gross Domestic Product
HDA	Housing Development Agency
HPPTN	High Priority Public Transport Network
HSDG	Human Settlements Development Grant
IAMP	Integrated Infrastructure Asset Management Plan
ICDG	Integrated Cities Development Grant
ICT	Information & Communications Technology
IDP	Integrated Development Plan
ILO	International Labour Organisation
IMR	Infant Mortality Rate
INEPG	Integrated National Electrification Programme Grant
INK	Inanda Ntuzuma KwaMashu
IRPTN	Integrated Rapid Public Transport Network
ITP	Integrated Transport Plan
IZ	Integration Zone
KPI	Key Performance Indicator
KSIA	King Shaka International Airport
KZN	KwaZulu-Natal
KZNPGRS	KwaZulu-Natal Provincial Growth and Development Strategy
LED	Local Economic Development
LEFTEA	Less Formal Township Establishment Act
LUF	Land Use Framework
LUMS	Land Use Management System
MCPD	Municipal Climate Protection Programme
Metro	Metropolitan Municipality
MFMA	Municipal Financial Management Act
MSA	Municipal System Act
MTERF	Medium Term Expenditure and Revenue Framework
NDP	National Development Plan
NDPG	Neighbourhood Development Partnership Grant
NDPP	Neighbourhood Development Partnership Program
NEMA	National Environmental Management Act
NGO	Non-Government Organisation
NHBRC	National Home Builders Registration Council
NHRA	National Heritage Resource Act
NMPR	Northern Municipal Planning Region
NMT	Non-Motorised Transport

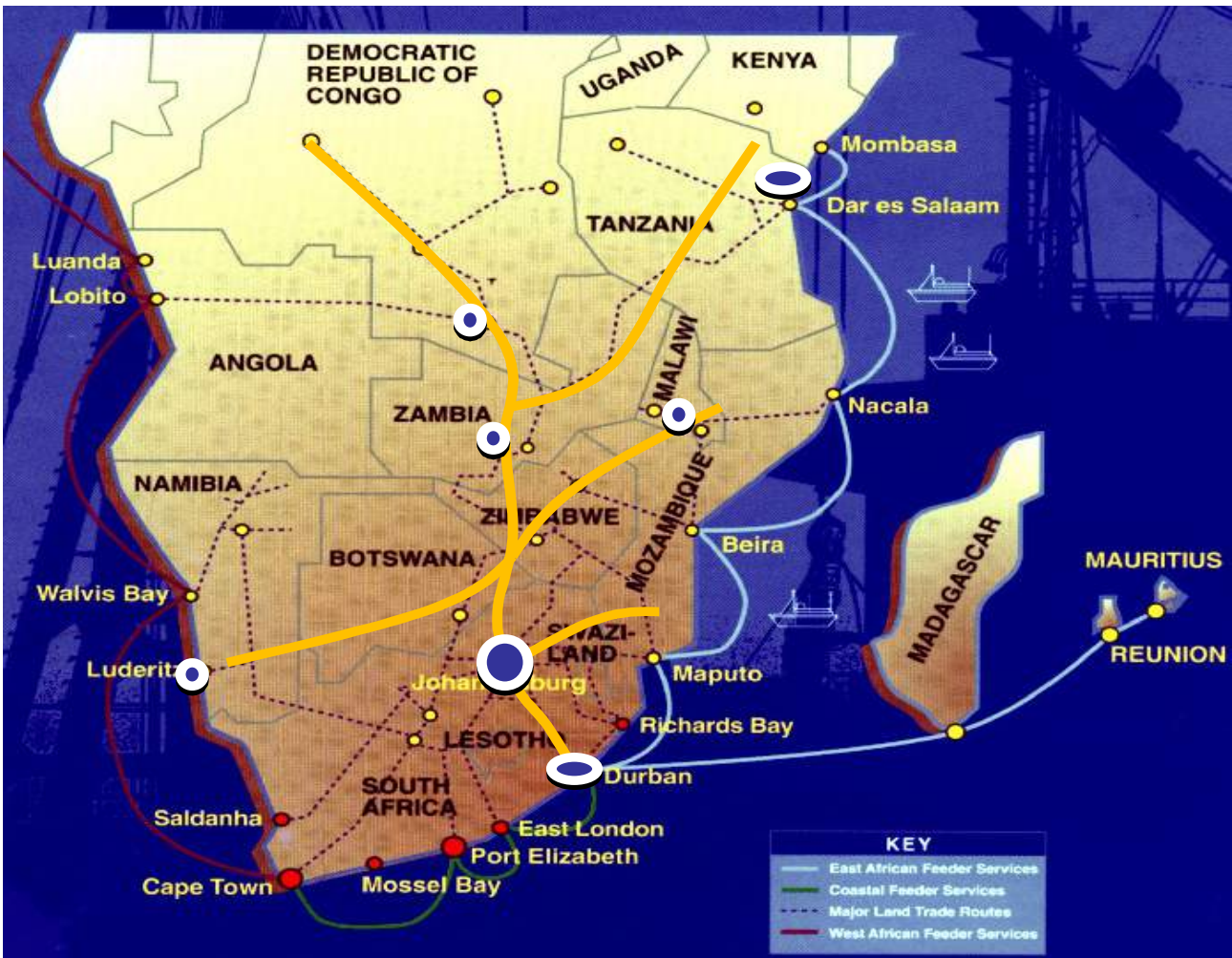
MOF	Ministry of Finance
NPC	National Planning Commission
NSDP	National Spatial Development Perspective
NT	National Treasury
PPF	Project Preparation Facility
PPP	Public-Private Partnership
PPT	Project Preparation Trust
PSP	Professional Service Provider
PTIG	Public Transport Infrastructure Grant
RFP	Request for Proposals
ROI	Return on Investment
SCM	Supply Change Management
SCM	Supply Chain Management
SDBIP	Service Delivery Business Implementation Plan
SDF	Spatial Development Framework
SDP	Spatial Development Plan
SEZ	Special Economic Zone
SIP	Strategic Infrastructure Projects
SMME	Small, Micro and Medium Enterprises
SMPR	Southern Municipal Planning Region
SOE	State Owned Entity / Enterprise
SPLUMA	Spatial Planning and Land Use Management Act
TEU	Twenty Foot Equivalent
UDL	Urban Development Line
UN	Urban Network
UNS	Urban Network Strategy
USDG	Urban Settlements Development Grant
WMPR	Western Municipal Planning Region
WSA	Water Services Authority
WSDP	Water Services Development Plan
WTW	Water Treatment Works
WWTW	Wastewater Treatment Works

PART B – Strategic Review of the Built Environment

The purpose of this Part is to review the performance of eThekweni’s built environment against the benchmark of an efficient, equitable, and connected city, and along the way to quantify metropolitan trends and pressures, and to identify challenges and impediments.

KEY SPATIAL AND LOCATIONAL FEATURES

EThekweni is a gateway city for trade and travel, and is very much part of a provincial, national, sub-continental and global economic network. Its place-specific competitive advantages are a very well-developed and maintained port & airport, world-class movement & communication systems, and a strong local economy with several mature economic sectors (freight, manufacturing, finance).

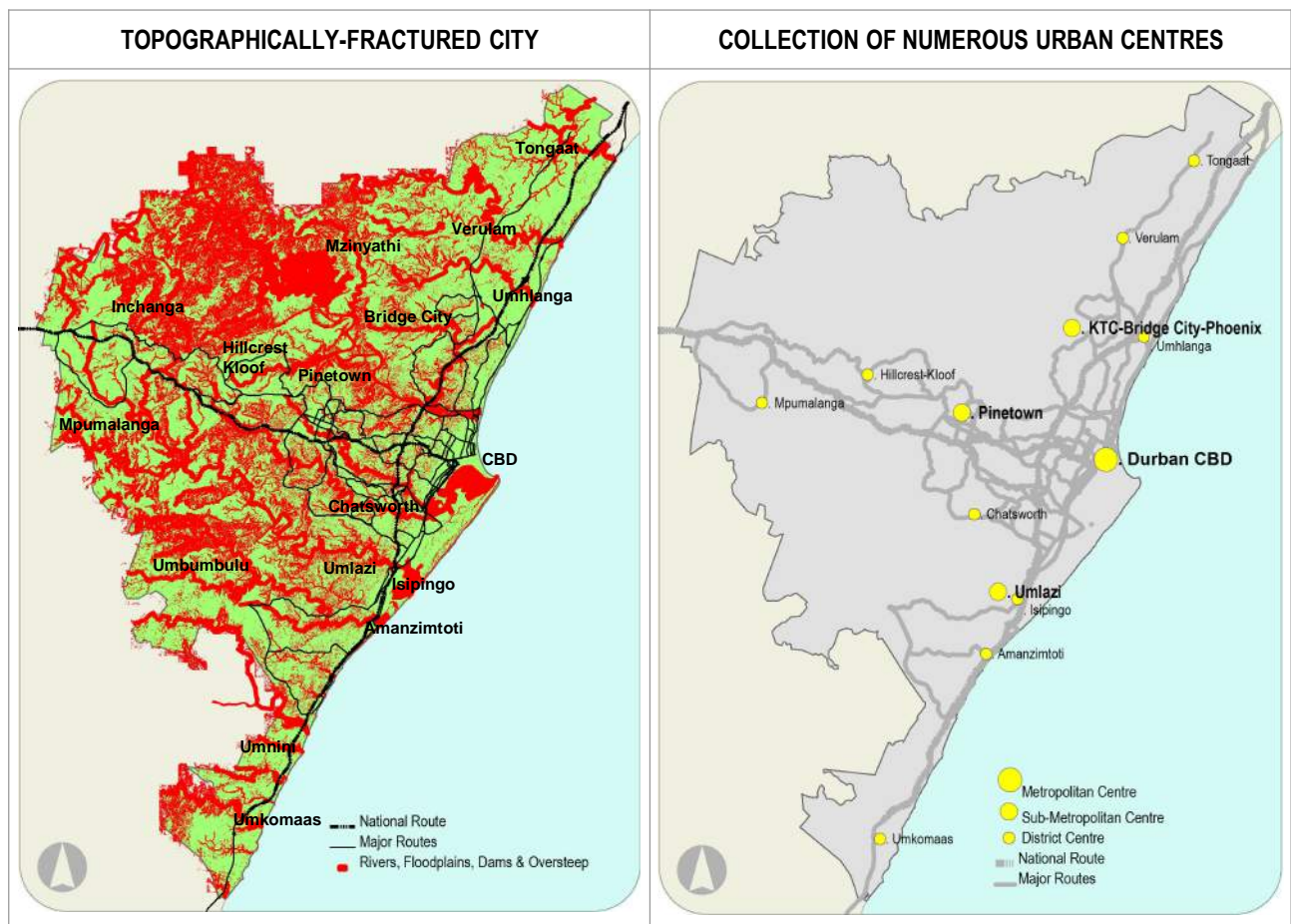


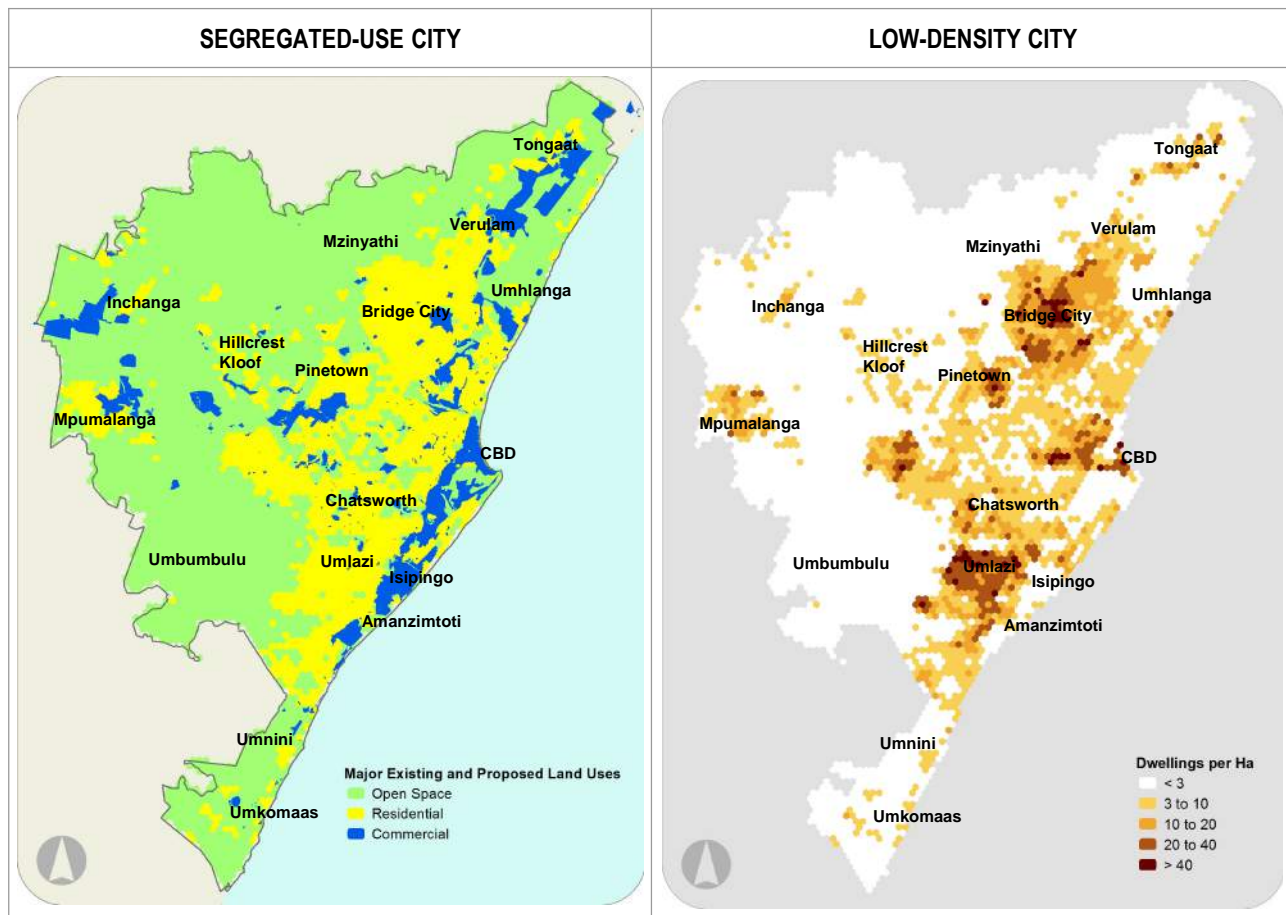
eThekweni’s structure is not the result of planned growth or a vision of urban form, but of the extension of its boundaries over time to incorporate low-density urban settlements and adjoining farmlands, and the extreme topography. The city is spatially fragmented, vast and complex, and economic uses are spatially segregated from residential uses.

The negative consequences of the combination of spatial fragmentation, segregation of uses, and low density are to:

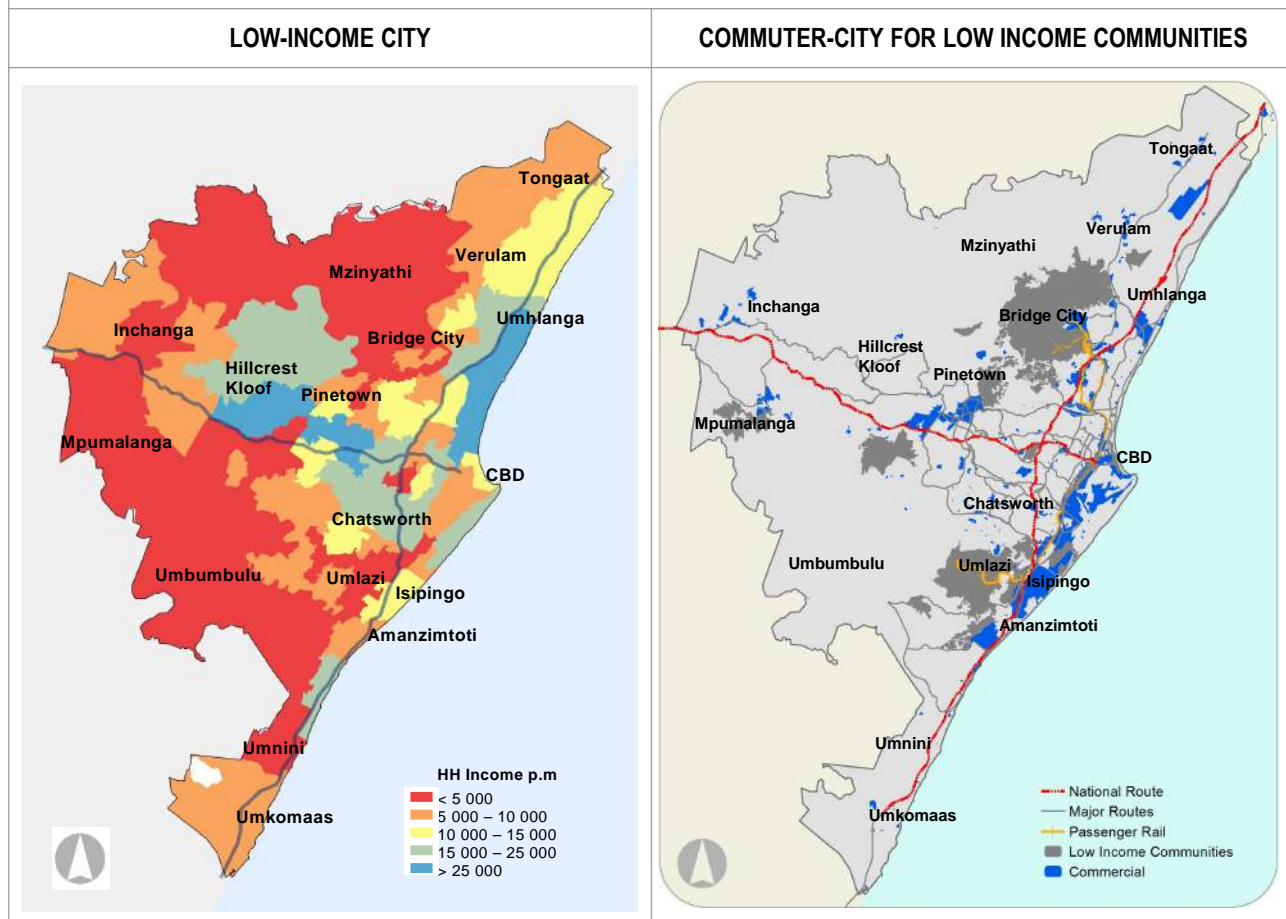
- Reduce the access that residents can enjoy to places of residence, to employment, and to social facilities.

- Contribute to economic challenges, especially: Increased trade costs across many sectors of the local economy; Low-density residential customer bases creating barriers to LED in residential areas; Absence of or low levels of LED in residential areas in turn creating a barrier to mixed land uses.
- Lead to major transportation-related problems, especially: Public transport which is inefficient, or unsustainable or even non-viable; Long commuting times (average for the majority of eThekweni commuters is 2 hours per day), which impacts negatively on labour productivity and on domestic cohesion, and; High relative transport costs per low-income household
- Promote inefficient infrastructure, especially: High costs per dwelling or business for pipe runs, and road lengths; High costs per dwelling for engineering maintenance and operations, and; Unused capacity.
- Promote environmental degradation through high energy requirements of and pollution by transport





The gross household density of eThekweni is 4.17 to 4.24 DU per Ha. Umlazi, CBD, Sydenham, and Clermont have 20 to 40 DU / Ha, INK has an average of 15 to 30 DU / Ha, and the remaining suburbs have 3 to 10 DU / Ha.











EThekweni is a low-income city. It has a high GINI Co-efficient of 0.63 ^[7] (the same as the SA average), and the average per capita income is a little over R 4,000 p.m., lower than most of eThekweni's metro peers. Of the 3,871,409 population and 974,572 households ^[8], almost a third live below the food poverty line.

The spatial aspects of eThekweni as a low-income city are the marked spatial separation between income groups, and how they relate to economic uses, which traces back to race-based planning. Except for Umlazi and Clermont, low-income suburbs have been the furthest away from major employers, middle-income suburbs have been somewhat closer, and high-income suburbs have been closest to employment, except for Hillcrest Kloof. This pattern is starting to be mitigated by improved connectivity afforded by the new sub-metropolitan route MR 577 linking INK to Pinetown, and the upgrade of Inanda Road from INK to Hillcrest. The pattern of lowest income furthest away is also starting to be reversed in two locations, by Greater DTP and Greater Cornubia, which in time to come will offer significant employment opportunities close to INK, and by the Keystone development close to Mpumalanga. The establishment of major retail centres in Umlazi, Bridge City, and Mpumalanga go some way to improve trip efficiencies for consumption and to bring retail, finance, and service industries closer to low-income households. However, there is still a long way to go to creating a highly connected and better integrated city, and there will always be a degree of separation of higher-order economic uses from residential settlement.

PUBLIC PERCEPTIONS OF THE BUILT ENVIRONMENT

^[9]

Though there are noticeable expressions of dissatisfaction around informal settlements and non-formal dwellings, the majority of citizens reported satisfaction with the built environment's performance. This contrasts sharply with dissatisfaction with living standards. Though perhaps not explicit, there is a built environment connection, in that living standards are adversely affected by inefficient urban form, particularly long and expensive commutes to employment or education. Living standards are linked also to the economic performance of the city, which itself has a spatial dimension. The system for income distribution, as another key influence in living standards, is more of an issue for economic policy, and less so for the built environment.

2014 rating	For	Improvement or decline since 2011	
Satisfied	Basic Household Services (all areas)	-	Unchanged
Very Dissatisfied	Management of informal settlements	-	Unchanged
Dissatisfied	Informal and traditional dwellings		Significant decline
Dissatisfied	Law Enforcement		Significant decline
Satisfied	Toilets		Slight decline
Satisfied	Water		Slight improvement
Satisfied	Refuse		Slight decline
Satisfied	Electricity	-	Unchanged
Satisfied	Dwellings		Slight decline
Satisfied	Public Transport	-	Unchanged
Dissatisfied	Roads Maintenance		Slight decline
Satisfied	Interface between Citizenry and Municipality		Slight decline
Satisfied	Access to Community Facilities	-	Unchanged
Satisfied	Maintenance of Community Facilities	-	Unchanged
Satisfied	Emergency Services	-	Unchanged
Satisfied	Clinics	-	Unchanged

7 Census 2011. Statistics SA. 2012

8 EtheKweni Municipality 2011 Dwelling Count. Projected to 2014. EMA. Jan 2013.

9 Municipal Services and Living Conditions Survey - 3 year Trends. Corporate Policy Unit. 2014

ECONOMIC INFRASTRUCTURE

Key features of the Local Economy

EThekwini is home to Africa’s premier multi-modal logistics platform and international passenger airport, Africa’s busiest port, and a global trade, conferencing, sporting and tourist destination. It is the economic powerhouse of KwaZulu-Natal and makes a significant contribution to the SA economy. It is a vital link between the regional economies of Pietermaritzburg (and onward to Gauteng) and Richards Bay. EThekwini is the second largest economic centre and the second most significant industrial region in South Africa. It is a promising global competitor with a world-class manufacturing sector. It is also a substantial administrative centre, providing key public services within the City as well as to the wider region. It is home to 10% of all employment opportunities in South Africa.

On the negative side, ^[10] eThekwini has:

- Under-investment in sectors other than transport, storage and communications
- Under-production of export goods
- Underdeveloped SMME sector
- Missed opportunities for better business linkages in maritime, tourism, production, ICT
- Delays in industrial land production caused by slow rate of statutory approvals
- Insufficient growth of the municipal rates and revenue services base
- A relatively small labour force in relation to its population size
- An under-skilled workforce
- Out-migration of skilled persons

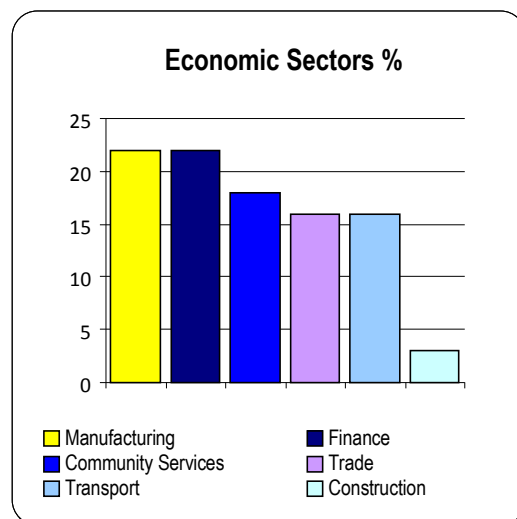
Snapshot Economic Indicators

Item	As At 2013 Unless Otherwise Specified	Benchmark	Trend
Pop. Formal Employment	305,735 or 8.6%	-	
Pop. Informal Employment	205,000 or 5.77%	-	
GDP	R222.6 Bn ⁽²⁰¹⁴⁾	2013	Increase
Imports	R78 Bn i.e. 9.8% share of SA imports	2013	Increased No.
Imports from Asia-Pacific	R45 Bn i.e.58% of local imports	2013	Increased No.
Total Exports	R49 Bn i.e. 5.9% of SA exports	2013	Increased No.
Exports to Africa	R18 Bn i.e. 37% of local exports	2013	Increased No.
Exports to EU	R18 Bn i.e. 36% of local exports	2013	Increased No.

Economic Activity by Sector

GDP growth in the eThekwini Municipality increased by 3.5% between 2011 and 2012 while KwaZulu-Natal and South Africa grew by 2.5% and 3.0% respectively.

The eThekwini economy is dominated by tertiary industries. Manufacturing, a secondary sector, constituted 22% of the economic activity, led by food & beverages, as well as fuel, petroleum, chemical & rubber products that contributed to manufacturing. ^[11]

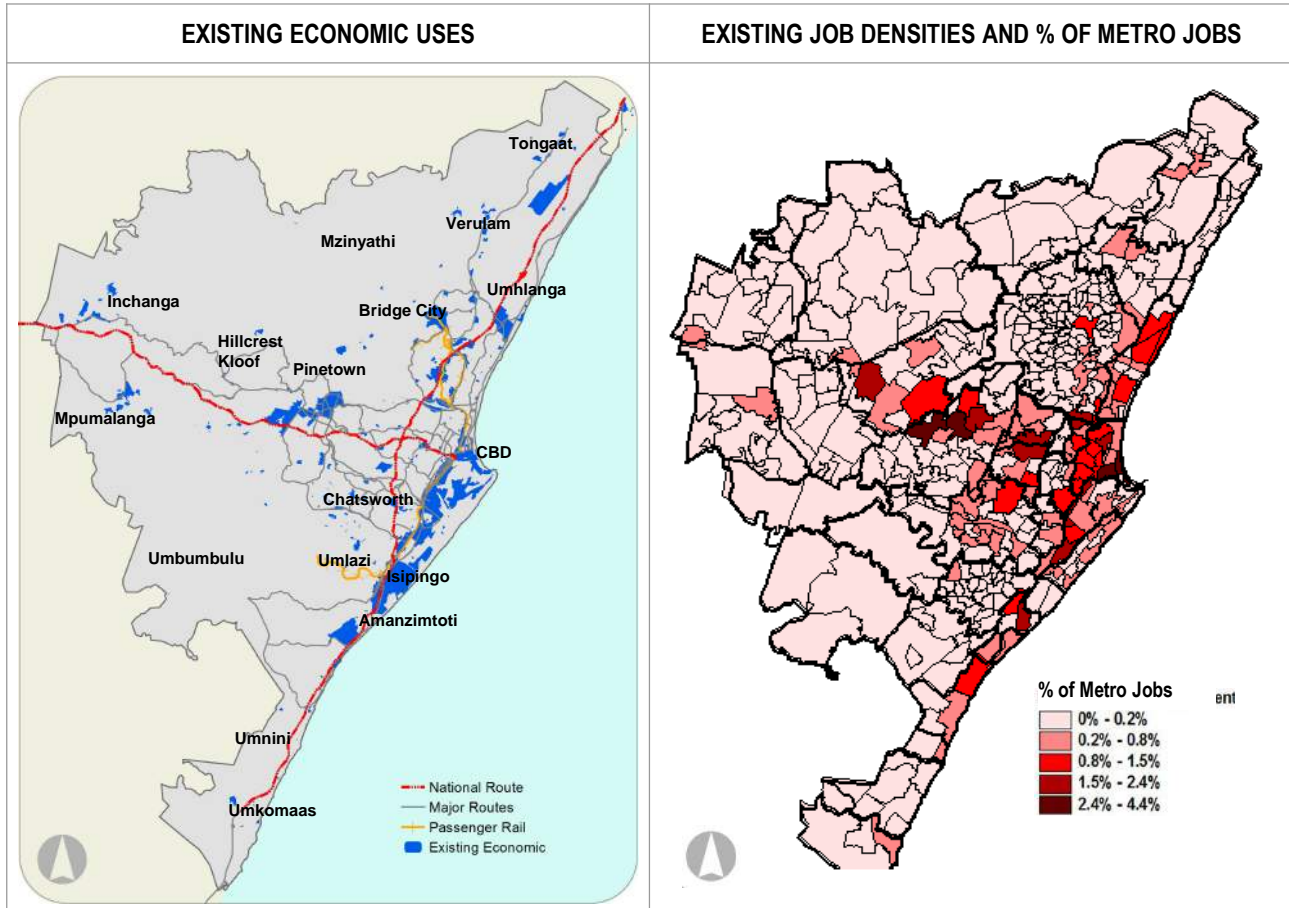


10 Economic Development and Job Creation Plan. Draft. EMA. Prepared by Urban Econ. Oct 2014
 11 Census 2011 and the latest 2012 data. Global Insight. 2012

Uses Trends by Location

North	Airfreight
Central	Sea-freight & manufacturing
West	National distribution
Existing industrial areas	Manufacturing & freight

The majority of economic activity is grouped around the Port, Back of Port and Southern Industrial Basin. There is also significant concentration in Greater Pinetown and there are significant though fragmented concentrations in the North, and the Outer West sub-metropolises.



Job densities reflect the locations of the major economic uses, and are supplemented by domestic employment and services in middle and high-income areas. Job densities are lowest in Umlazi, INK, Mpumalanga, the non-urban areas, and the greenfields belt between the R102 and the N2 in the North. The scope for improving job densities is highest for the greenfields, and will be through industrial and mixed used development. The prospects for job densities to improve in Umlazi, INK, and Mpumalanga are comparatively limited, as its is unlikely that there is either the vacant space in sufficiently large pieces, or the investor confidence, for major economic uses to locate themselves, there in the medium term. The exceptions to this could and should be the BRT route along MR 577, which is under construction, the further development of Bridge City and its integration with Phoenix Industrial and KwaMashu Town Centre, and the redevelopment of the Umlazi V-Node and Reunion Station Precincts. The other prospects that do exist are for retail, services, and LED. If the local economy improves and the income disparities decline, then the large townships could also begin to offer significant domestic employment. For the non-urban areas, prospects for improved job densities appear to be for retail, services, and agri-processing in the larger non-urban settlements, and for intensive agriculture and tourism further afield.

Land Currently Serviced and Zoned for Economic Uses

[12]

A key spatial expression of the metropolitan economy is industrial land (used interchangeably here with 'land for economic uses'). 16,730 Ha of land is currently serviced and zoned for economic uses. Of this, 14,400 Ha have been built up. 2,700 Ha is vacant. Current demand is in the range of 30 - 50 Ha p.a.. At these rates, the fallow land could theoretically satisfy supply for 30 - 50 years. There is however a perception by developers and property investors of un-served demand. Latent demand may be higher than this if serviced land was readily available, as demonstrated through the rapid sales at Cornubia.

For 700 Ha of the fallow land is in the Outer West, take up is likely to be quick, as it has only recently been developed and enjoys good access to the N3, and will deal with localised demand for national distribution centres. For the fallow industrial land elsewhere, the prospects of take-up are not as optimistic, for the probable reason that this land is not well located and-or not appropriately serviced for the current demand (e.g. high speed broad band access, or roads that can accommodate interlinked vehicles). This raises the question of how to manage this land: should it be rezoned to a more suitable use or; should it be upgraded to meet new demand trends, and-or; should urban management issues be addressed that may be affecting the attractiveness of the area for investors and businesses.

National and Provincial Competition in the Industrial Land Market

What could be influencing the lack of take-up is land-price competition with Johannesburg, Cape Town, Richards Bay, and Pietermaritzburg. The average rentals of R 36-40 per m² on eThekwini's industrial land are similar to the average rentals in competing cities, but at R 1,250 per m² its average land value is 30% (Jozi & CT), 200% (Richards Bay) to 400% (Pmb) respectively higher than competing cities. High land prices compared to competing cities drags down the ROI for developing industrial land. For sectors that are not location-bound, this is likely to result in investors preferring to invest in competing cities. For industries that are tied to eThekwini (e.g. Port & airport operations, major businesses where moving costs are too high, and aspects of the Freight Industry), price is an indicator of high demand relative to available supply.

Constraints to Land Production for Economic Uses

The overriding constraint is the time it takes to deliver serviced land. The business expectation is that serviced land should be delivered within two years from project inception. The land production cycle in eThekwini including identification of land, planning processes & approvals, and servicing, takes 8 to 10 years. Reasons include:

- Red tape / regulations/ delays / re-active planning/ EIA's / Act 70 of 1970
- Core infrastructure costs / limited municipal finance / developers contributions / Difficulties in agreeing and coordinating contributions to core infrastructure by other spheres
- Lack of internal co-ordination between departments

The other constraints include:

- Land prices are perceived as too high
- Significant land holdings in the hands of a few owners
- Lack of clear rates incentives
- Variable investor confidence.

Constraints to Intensification and Redevelopment of Land for Economic Uses

Constraints include crime & grime, lack of urban management, and lack of impetus by public entities to re-develop or upgrade of existing engineering & communications infrastructure.

RESIDENTIAL INFRASTRUCTURE

The average residential densities of the metro as a whole are generally too low to sustain public transportation and other infrastructure, or to promote the municipal economy.

The gross municipal residential density is 4.17 to 4.24 DU per Ha d, and 55% of the municipal surface has an average residential density of 3 dwellings or less. In areas where the residential densities are significantly higher – Inanda-Ntuzuma-KwaMashu (INK) and, Umlazi and Chatsworth, Cato Manor and Berea, Durban CBD, Pinetown, Clermont and KwaDabeka – public transport is more viable. Public transport requires gross densities in order of 60-90 dwellings per Ha in order to be self-sustaining without subsidisation. EThekwini has a massive challenge to overcome since there are only a small minority of areas that come anywhere close to these densities. Densities tend to change slowly over time and therefore urgent and consistent attention needs to be given to enhancing densities in all areas and in particular within walking distance of the IRPTN.

Urbanisation has been one of the most significant demographic and settlement trends over the past few decades.

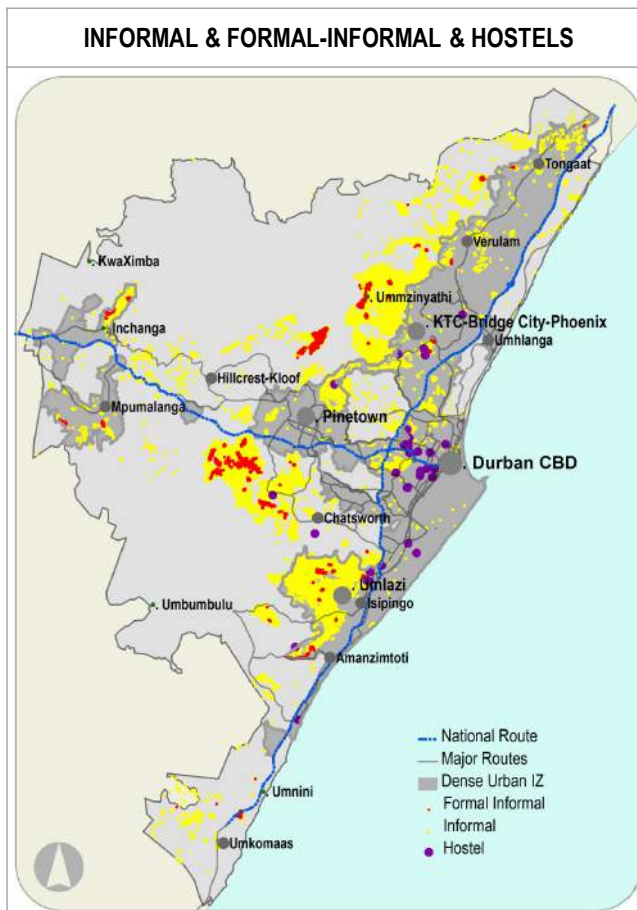
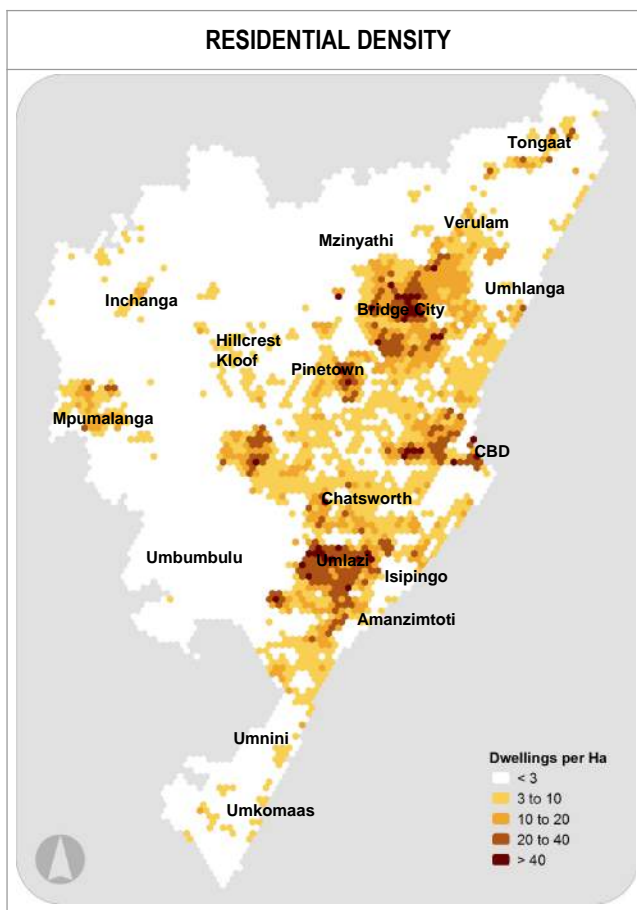
At a growth rate of 1.1% p.a., the population of eThekwini will grow to 4,4 million by 2030, an additional 775,000 people. [13] However, if global trends continue, then the 1.1% annual growth might be too low. Cities globally now accommodate 3.5 billion people or fifty percent of the worlds” population. By 2050 they will accommodate 6.4 billion people or over 70%. [14]

There are 265,542 households, making up 27% of the City’s households, in informal settlements.

Informal densification and extension of existing informal settlements is ongoing.

Hostels are a major challenge.

EThekwini has hostels with 110 000 official



13 EThekwini City Density Strategy, May 2013

14 City of Melbourne, 2010

beds. An upgrading and rebuilding program has started, using funds from the Community Residential Unit (CRU) program. This program improves the living conditions of the hostel residents substantially but it is by far not sufficient for the scale of the problem and it does not integrate the hostels socially into surrounding neighbourhoods.

The rural low-income demand is significant, and is expected to grow.

The demand in 2011 was officially estimated at 60,182 dwellings. [15] The estimate however treats all traditional dwellings as being inadequate shelters, in contrast to the common perception that traditional homesteads are often a better shelter solution than newly-built subsidised housing, although clear incidences of inadequate shelters exist. There is not sufficient information on rural shelter to clarify the situation. For KZN as a whole the de-densification of some rural areas is likely. But this is unlikely to apply in eThekweni. Two other scenarios are more likely: continued densification of rural areas and their gradual transformation into suburban areas, and-or: the retention of rural settlements at low densities, especially where the municipality actively promotes agricultural use of the surrounding land.

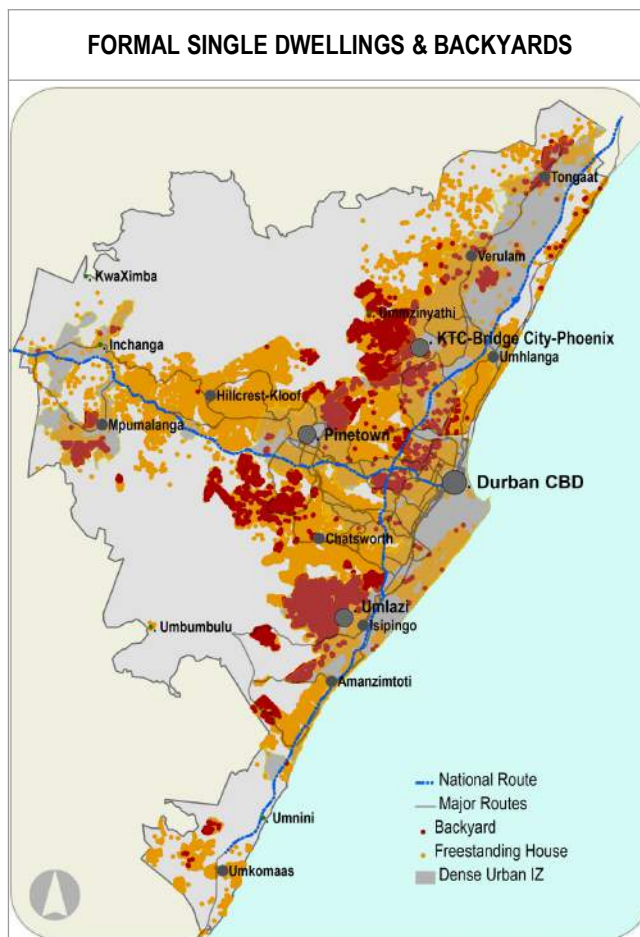
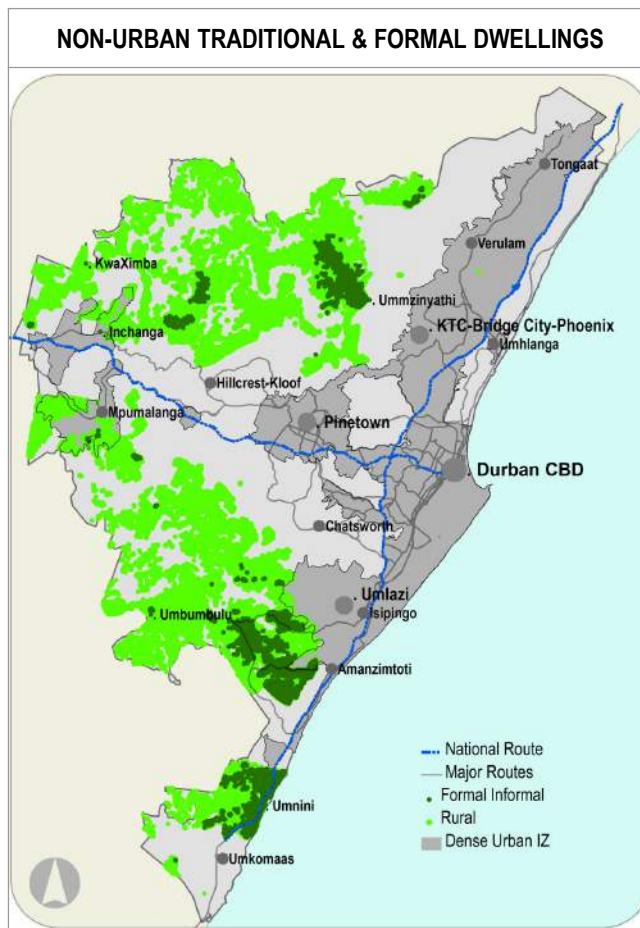
Development of social facilities is often not aligned to greenfields housing projects.

Despite terrain constraints, formal housing and supporting core infrastructure is well developed and more or less continuous.

Many suburbs are well-located relative to major movement systems, and there is a strong secondary movement network for the other suburbs

There is a nucleus and spines of reasonably well-developed medium and higher density uses along the 'T' formed by major routes

The market is spontaneously providing dwellings in sufficient number, of adequate quality and in the optimal



15 Census 2011. Statistics SA. 2011.

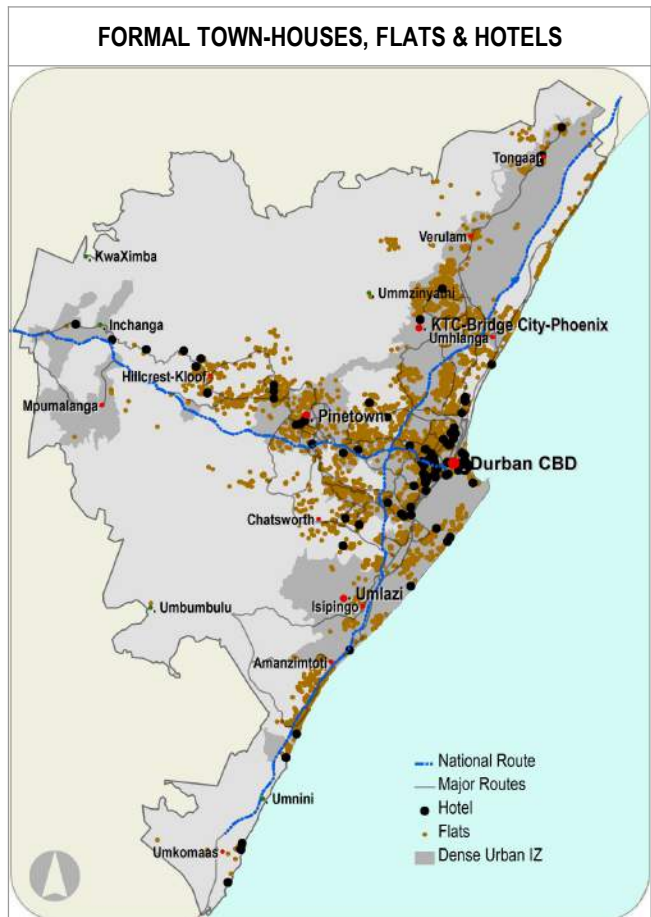
locations for the upper-middle and upper income markets.

Formal property markets are not working efficiently for the low income and affordable housing income groups.

One reason is that formal transfer processes are expensive and time consuming. Poor households often rely on the informal property market. The informal property market is insufficiently recognised and regulated by the state and other decision-makers. This leaves the poor exposed to exploitation.

Low-income housing tends to distort the housing market. The typical RDP house costs around R120,000 but is provided free, and consequently perceived as having a low market value. Secondly, the prevalence of subsidised housing can make it difficult for developers to differentiate a lower-market product from subsidised housing.

In addition, though the housing policy seeks to support households in the affordable market segment, affordability is significantly over-estimated, whilst the cost of delivering such housing is typically under-estimated.



Some Bad Buildings exist in the inner city.

Some buildings have been taken over by Social Housing Institutions (SHI) who have refurbished them as rental units.

The rental market is significant.

It is estimated that 33% of households in eThekwini rent their accommodation. There is significant rental stock in the denser parts of the city. In suburban areas and townships, small-scale rental is prevalent, particularly in low- and middle-income areas. Backyard rental and sub-rental in existing houses are significant housing providers and have potential for expansion. Although no conclusive figures are available it is commonly held that the unmet demand is also significant in the affordable housing sub-market. The advantages of promoting rental in the suburbs are increased densities and social mix, and increased utilization of existing services and facilities. There is currently no enabling framework for this to occur.

Housing supply is constrained in the lower and lower-middle segments.

The formal private market is not spontaneously providing dwellings in sufficient number or of adequate quality or in the optimal locations for the poor or affordable markets. The degree to which the formal market does not penetrate the low-income sub-market is near-total. The focus of publicly funded housing has been on supply to the low-income sub-market. The main outcomes have been free standing houses coupled with individual freehold title, transfer of state owned rental stock to tenants, and some hostel upgrades coupled with rental tenure.

As in most SA cities, jobs are not where the people live, and vacant land for housing is not where the jobs are.

Most jobs in the manufacturing, warehousing and transport industry are located in the centre, south and west of the municipality but a large number of workers live in the north. Vacant land for low-income settlements has predominantly been identified in the north. The long distances between residences and employment need to be addressed. The economic and residential growth axis is in the North. It has been occurring for the last decade and this momentum will increase with the development of the Greater DTP and Greater Cornubia.

There are obstacles to densification

Construction costs are higher per top-structure than provided for in the subsidy schemes. If units are not subsidised, then they are unaffordable for the poor and lower-middle income. The sub-markets that can afford higher density unsubsidised or partly subsidised rental or ownership stock are very small and already stable in terms of current demand and supply.

Land acquisition for housing has distribution and acquisition challenges and opportunities

Approximately 205,000 Ha of Ethekeeni's extents are 'undeveloped' non-Forestry and Non-Agricultural land. Of this 71,000 hectares is deemed developable. Based on the need for approximately 2,000 hectares of land for greenfields projects, the low income and affordable housing market will require 3 % of the total amount of developable land in the municipality.

Most of the appropriately located land is in the North area under private ownership, and much of that in the hands of Tongaat Properties. The large holding by a single owner has contributed to a simpler land acquisition process. The impact on price of absence of competing land supply is unknown.

Vacant land also exists in the West. Land in the South is quite scarce with the remaining undeveloped land being unsuitable or too costly to develop due to the steep terrain. In Central, vacant land is limited, and what remains has already been informally settled. Central does however provide excellent opportunities for small infill development as well as the development of medium density housing projects.

Land owned by the municipality can and often has been used for housing purposes, but is usually subject to intense competition for other uses.

The processes to use land owned by other spheres of government for housing tend to be complicated and time consuming. In addition SOE's treat their land as balance sheet assets and consequently sell or let at market prices. Even at market price, acquisition of private land is often the faster option. Where there are multiple land-owners, the situation can be complex if a private treaty approach is followed. Private treaties tend to collapse if some of the unwilling owners hold out for expropriation.

There are other significant non-technical challenges to housing delivery

Environmental Impact Assessments rarely stop housing projects but frequently delay them, as do the procedures to release agricultural land.

Town planning requirements are principally township establishment. This often requires rezoning of the land. SPLUMA enables the municipality to carry out rezoning and township establishment in its own right without engagement with Province. The municipality would be interested to explore a streamlined town planning process, with cadaster being formally defined only for commercial and social sites and for roads, and with a less formal process for the definition of individual residential sites.

Slow repayments to eThekweni for bridging finance on subsidised projects, coupled with increasing internal resistance to availing bridging finance.

The funding portion for top-structures is insufficient for medium-density developments such as double-storey row-houses, especially if they are located on steep sites. Medium-density developments are required to implement the spatial and housing strategies of eThekweni. A top-up of approximately R 40,000 per unit is required to enable the construction of double-storey duplexes.

The housing subsidy provisions for difficult geo-technical conditions are insufficient for building on steep land and for geotechnically difficult land. A top-up of approximately R 15,000 per unit is required to enable additional earthworks, embankments, retaining, slope stabilisation, and stormwater control.

The city is gearing up capacity for dedicated project preparation.

MOVEMENT SYSTEM

EThekweni has a well-developed port, airport, road and rail network.

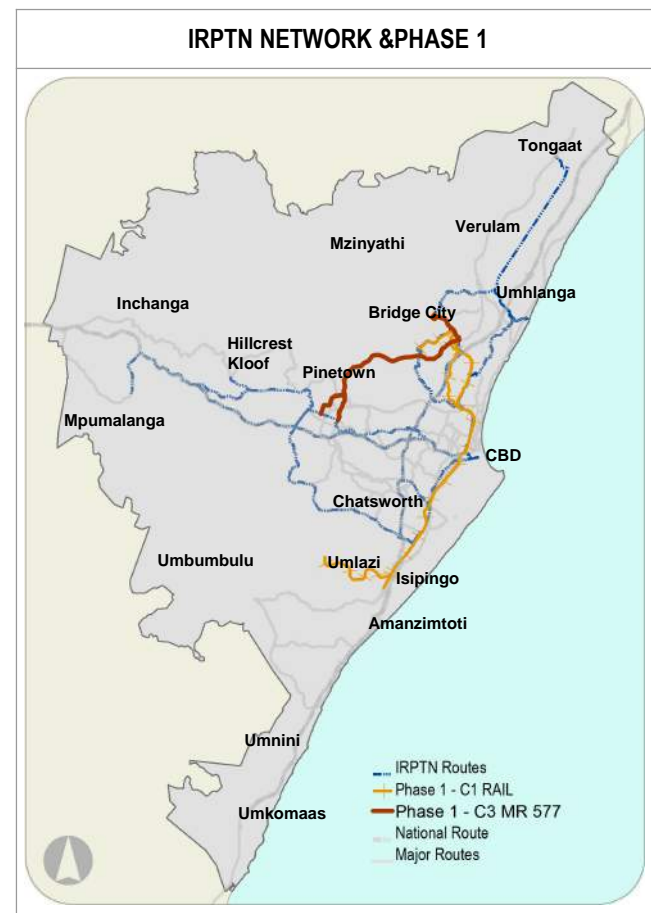
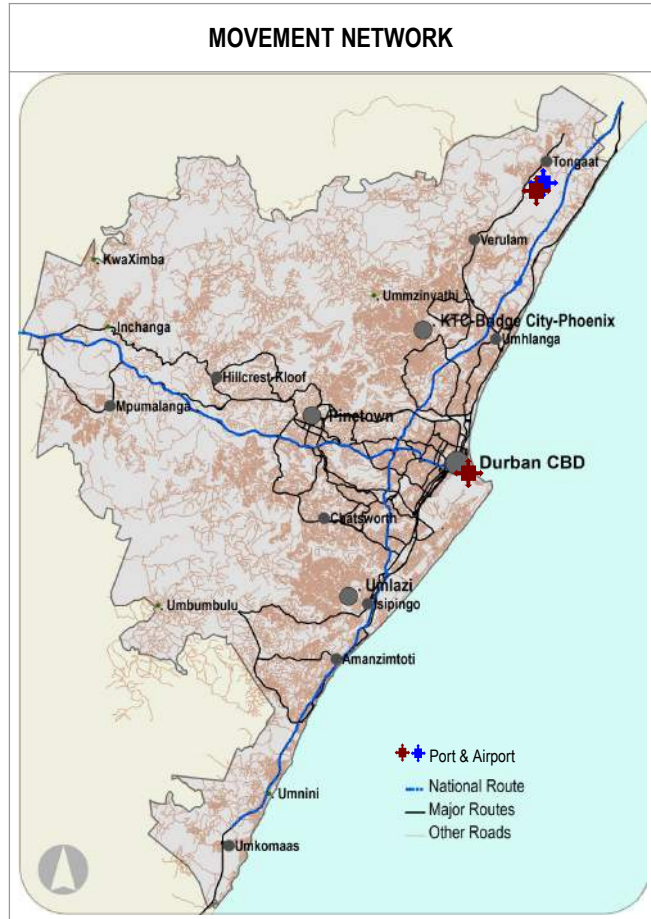
The metropolitan scale movement system (National and Provincial Roads, and Arterials) is well developed and so is the local movement system Formal Urban Residential Developments and Economic Developments, but there is significant congestion in the Port and back of Port, and at key intersections on National Routes. In informal settlements and Non-Urban Locations, the movement system tends to have well-developed public transport routes and local main roads, but with 1,118 km of below-standard local roads.

IRPTN

The IRPTN consists of North-South railway line from Bridge City to Isipingo and a number of Bus Rapid Transport (BRT) routes. It is planned that the network will have 18 transfer station ranks from rail to buses or minibus taxis.

The housing section of the ITP acknowledges the close link between location of settlements and public transport, and the need for transportation input into the selection of locations for new housing projects. From a transport point of view, the ideal locations of settlements are around BRT stops and Rail Stations. Human settlements not on trunk routes will be serviced by feeder buses or minibus taxis.

The multi-Billion first phase of the IRPTN is in implementation. One part is the C3 Road Corridor between Pinetown and Bridge City,



a BRT route with BRT Stops and a major Transfer Station Rank at Bridge City. The BRT Route and Stops are under construction. The other part is the C1 Rail Corridor from Bridget City to Umlazi Station. This involves Station Upgrades, line and signalling improvements, and new rolling stock. ETA is responsible for C3, and PRASA for C1. Both projects are regarded as Catalytic Core Infrastructure Projects.

Key Challenges

- Congestion, particularly around the Port and on key National Interchanges, is lowering economic productivity, and the important Freight sector is particularly affected.
- Congestion contributes over 50% of atmospheric emissions in cities - the highest source of pollution.
- High accident rates involving pedestrians and high numbers of fatalities increase the burden on hospitals and on medical and social services and decrease economic productivity.
- Maintenance backlogs translate to longer trip times and higher vehicle repair costs.
- Many of the poorest households live far from employment. Transport costs constitute a significant percentage of their household expenses.

COMMUNITY SERVICES

The Access Model ^[16] maps the served and un-served demand for selected local and district community services of the population including informal settlements. The Model found a general trend of under-provision, with particularly low access to schooling and primary health care.

The cost of meeting the un-served demand was first calculated to be in the order of R 7.2 Bn (at current value). ^[17] When the constrained funding environment was taken into view, it prompted the Essential Services to be differentiated from Desirable Services, and to lower accessibility levels for Desirable Services. This reduced the requirement to R 3.4 Bn.

The process of interpreting the Access Model also identified other key issues that need resolving:

- The need for multi-MTEF spatial planning and budgeting
- Funding mandates re Fire and Libraries
- Funding commitments of other spheres
- Coordination with other spheres
- Population thresholds and space standards for Local and Regional Parks
- Management with Dept Education of school sports facilities as community facilities

ESSENTIAL FACILITIES	Accessibility		Funding Mandate		Funding Implications	
	Current	Proposed	EThekwini	Other Gov	EThekwini	Other Gov
Clinics	56%	93%	NO	YES	0	168
CHC's	56%	93%	NO	YES	0	123
Primary Schools	83%	100%	NO	YES	0	624
Secondary Schools	77%	99%	NO	YES	0	900
SAPS Police Station	?	?	NO	YES	?	0
Fire Stations	72%	85%	?	?	234	?
Libraries	70%	92%	YES	YES	129	129
Cemeteries	-	-	YES	NO	?	0
Metro Police Station	?	?	YES	NO	?	0
Subtotal					362	1,943

16 Accessibility Mapping & Optimisation of Community Social Services In Ethekewini. Ethekewini Municipality. Prepared by CSIR. 2008. Updated 2010, 2013, 2014.
 17 This figure excludes local and regional parks, for which the standards require review.

DESIRABLE FACILITIES	Accessibility		Funding Mandate		Funding Implications	
	Current	Proposed	EThekwini	Other Gov	EThekwini	Other Gov
Sports Fields	?		YES	YES	?	0
Indoor Sports Halls	71%	98%	YES	NO	117	0
Sports Stadia	80%	95%	YES	NO	390	0
Swimming Pools	70%	80%	YES	NO	390	0
Local Parks	?	?	YES	NO	?	0
Regional Parks	?	?	YES	NO	?	0
Community Halls ABC	79%	88%	YES	NO	125	0
Subtotal					1,021	0
TOTAL					1,384	1,943

SUSTAINABLE DEVELOPMENT

Biodiversity

EThekwini is in the Maputaland-Pondoland-Albany global biodiversity hotspot i.e. an area of high species richness that is also under considerable threat.

Climate Change

A recent World Bank study estimated the global cost of climate change adaptation at US\$ 70–100 Bn p.a. The Global South is likely to carry 80% of this because it will suffer earlier damage than the Global North. Southern cities require a break from the status quo to minimise future damage and limit adaptation costs. EThekwini will prioritise eco-system based adaptation because it is more cost-effective than other adaptation approaches.

EThekwini has made some progress to limit the loss of natural areas by using instruments such as proclamation of protected areas, conservation zoning, conservation servitudes controlled development areas, environmental special rating areas, and land acquisition. Natural asset-management improvements have been initiated, including active reforestation of certain open spaces (e.g. the Buffer Zone surrounding the Buffelsdraai Landfill Site), and through the Working for Fire and Working for Ecosystems programs. 14% of the D'MOSS area is protected, and another 12% is managed, and it is intended to upscale this. Up-scaling is a challenge considering capacity challenges, and the rapid urbanisation and transformation taking place to meet development and service delivery goals.

Free Eco-System Services

Green infrastructure provides the environmental stability, clean air, water, stormwater control and more, [18] and is part of the basis of human well-being. The value of free environmental services is estimated to be equivalent to 17% of the Operating Budget. Green infrastructure informed the design of the Durban Metropolitan Open Space System (D'MOSS).

Bio-deiversity loss

Recent analysis suggests eThekwini is following the global trend of biodiversity loss, which reduces affects the supply of eco-system services. Eco-systems have thresholds i.e. they require certain minimum amounts of space to be able to exist at all, and if these thresholds are breached, then the viability of a local eco-system is under threat.

18 Gas Regulation, Climate Regulation, Disturbance Regulation, Water Regulation, Water Supply, Erosion Control, Soil Formation, Nutrient Cycling, Waste Treatment, Pollination, Biological Control, Refugia, Food Production, Natural Products, Genetic Resources, Recreation & Cultural Resources

Conservation Targets

There are conservation targets for 14 eco-systems. For four it is no longer possible to meet targets. For another five, the city is very close to the minimum thresholds. There are another five ecosystems where targets can easily be met. The majority of the biodiversity assets and with the highest value of ecosystem services are in non-urban areas under Traditional Authorities. This suggests a strategic management role for Traditional Authorities in any progressive green infrastructure vision.



Vegetation Type (KZN classification)	Conservation target	Area in D'MOSS	Protected	Deficit /excesses
North Coast Grassland	29150	9022	218	-19910
South Coast Grassland	6046	2551	0	-3495
KZN Sandstone Sourveld	3920	3259	116	-545
Swamp Forest	55	51	0	-4
Mangrove Forest	65	65	47	18
South Coast Bushland	488	765	0	277
KZN Dune Forest	888	1285	26	423
KZN Coastal Forest	1572	2075	34	537
Moist Ngongoni Veld	3099	3871	0	772
North Coast Bushland	8189	9246	11	1067
KZN Hinterland Thornveld	1706	3664	0	1958
Dry Ngongoni Veld	4527	7863	0	3336
Southern Coastal Forest	5470	8817	531	3878
Eastern Valley Bushveld	5020	11182	0	6162

D'MOSS Implications

D'MOSS has implications for other sectors. The basic response should be to promote the densification of all built uses, whether residential, economic, social, or transportation. The second basic response is to densify, intensify, or redevelop the existing urban fabric wherever possible, to utilise infill opportunities, and to be circumspect in developing major greenfields locations.

CORE INFRASTRUCTURE

Piped Water Network

The piped water network is comprehensive in urban locations, and there is a high penetration of Non-Urban locations. There is a significant void in the network in the Greater Cornubia and in the Greater DTP & Surrounds, and which requires to be filled to enable the City's development intentions. The majority of the un-served demand for residential water connections is in informal settlements, although the local reticulation exists to which to connect. The City experiences high levels of non-revenue water loss, caused mainly by illegal connections in townships and informal settlements.

Raw Water Supply

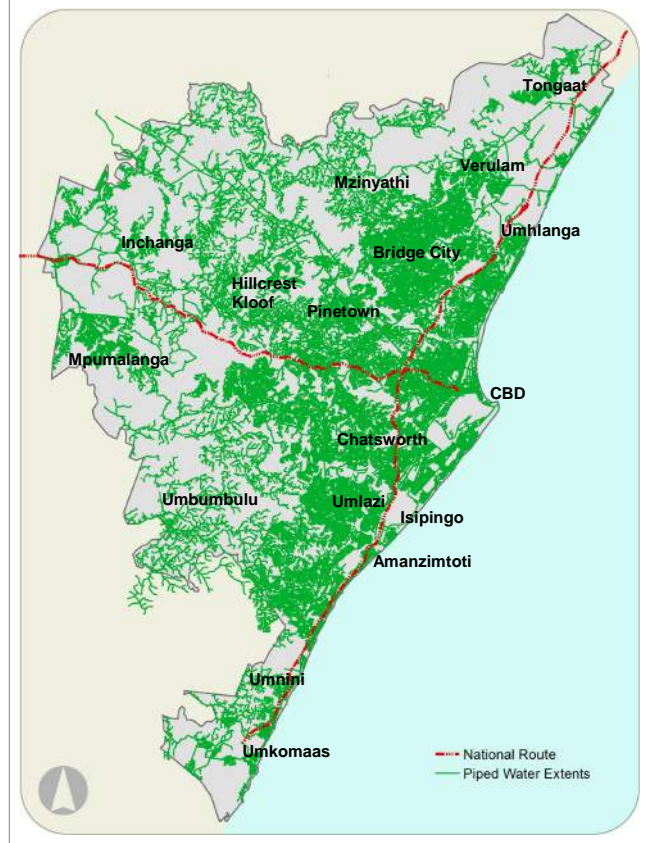
There is insufficient raw water supply to deal with the further development as envisaged in the SDF and SDP's, even with the Spring Grove Dam now being complete. A medium- to long-term option is the construction of a dam on the Mkomazi River, and interactions are in progress between Umgeni Water and eThekweni on the. Issues to be resolved include what the funding plan, and the possible impact and management of water tariffs.

There is a further problem in that the level of assurance of the Umgeni System is above 95% is still less than 99%. This creates some risk of water restrictions in low rainfall periods in some years to come, and which years will reduce economic output, reduce effectiveness of social services, and reduce residential amenity.

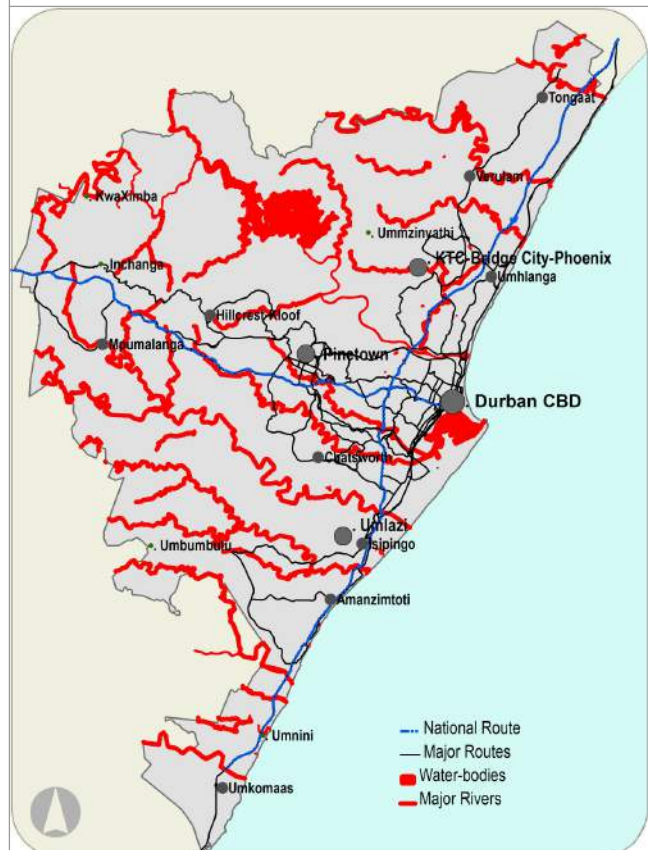
Alternative Supply, Loss Limitation, and Demand Management

In addition to augmenting the raw water supply, other interventions in supply and demand are under consideration. Water recycling may, if all the approvals are received, come on stream in the medium-term. More efficient utilisation of the existing resource is the short-term priority, particularly limiting water losses through theft and leaks. Desalination is also under consideration, and a feasibility study is in progress.

EXTENTS OF THE PIPED WATER NETWORK



MAJOR RIVERS



Water Supply Reconciliation Strategy Study for the KZN Coastal Metropolitan Area

The objective of this DWA study is to identify, evaluate, and prioritise interventions to reconcile the water requirements with the available water resources up to the year 2030. The study area is from Pietermaritzburg in the west to Durban and from KwaDukuza in the north to Amanzimtoti in the south. It includes the eThekwini Metropolitan and Msunduzi and Ilembe Municipalities.

River Classes

Related to the Reconciliation Strategy is an exercise by DWA to classify the rivers in the KZN Coastal Metropolitan Area. The Classes, once gazetted, will set what can be extracted from them, what can be discharged into them, and how must be managed environmentally. The exercise has a strong emphasis on environmental considerations, and in upgrading of rivers. High-level interactions are in progress between DWA and eThekwini on how to modify the exercise to take into greater consideration the future growth of the City, and also the cost and technology implications of the infrastructure needed to sustain the River Classes.

Wasterwater Treatment Works

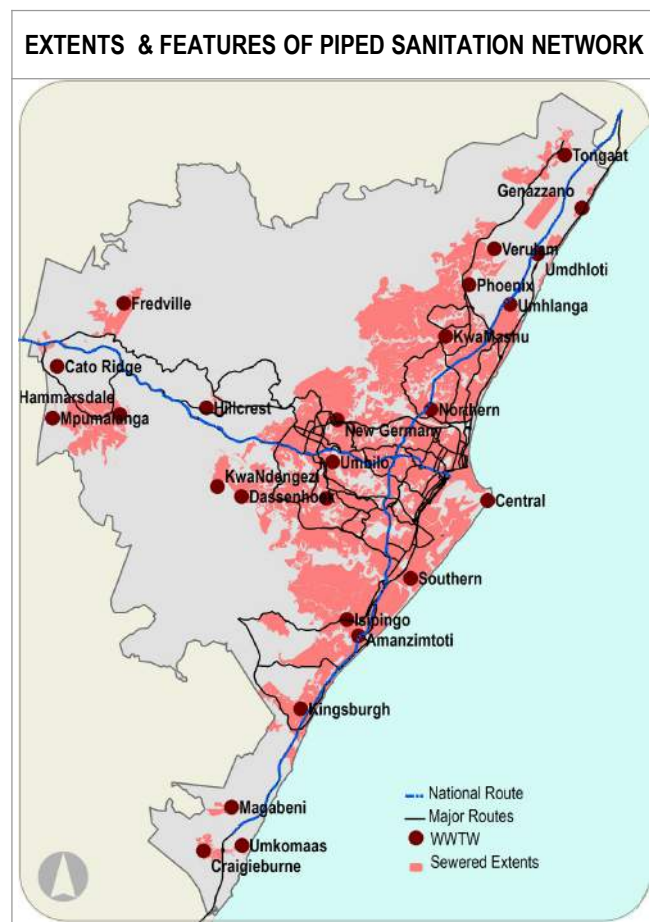
There is some urgency to upgrade existing and build new WWTW's, oarticularly in the North. Obtaining approvals for doing so is linked to the finalisation of the River Classes exercise, and to obtaining Water Use Licences, and currently these are delay factors that need to be considered and where possible mitigated.

Water Use Licences

A Water Use Licence from DWA is required to upgrade existing sewerage treatment works and to build new ones. Before a license application is assessed, the ecological reserve of any affected water resource must be established. Although the ecological reserve determination studies have been completed and submitted for a number of the eThekwini estuaries, these studies have not been finalised by DWA. However, it already seems to be clear from a sewerage planning perspective that, if the intentions of the ecological reserve process are to be met, and the current land uses in the SDPs remains unchanged, a combination of direct re-use of treated sewage effluent for potable water supply, some quite extensive cross-catchment pumping, and-or sea outfall will have to form the basis of future sewerage planning.

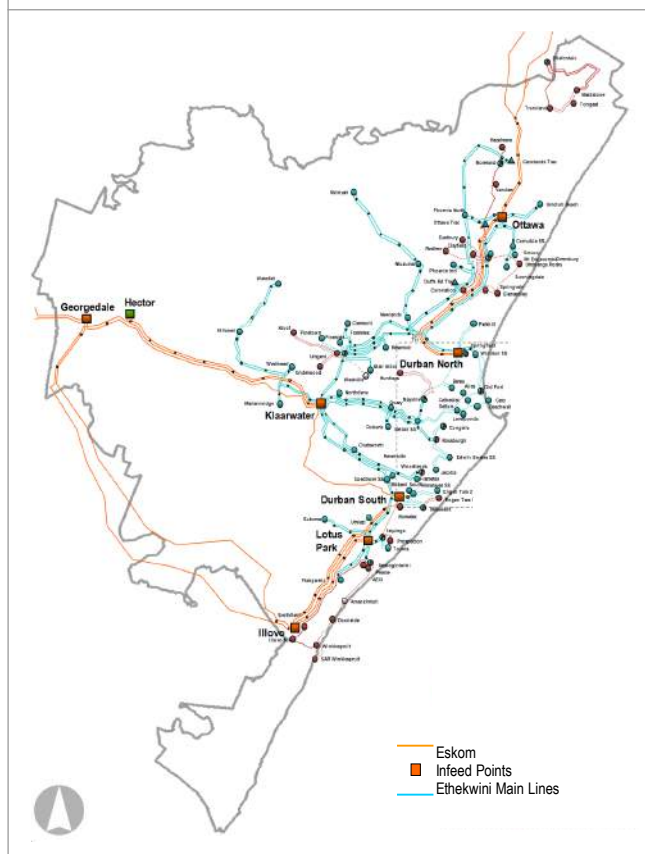
Existing Sewer Infrastructure

The network of WWTW and Trunk Mains is well-developed within the Central and North Sub- Metropolises. As with Water, there is a significant void in the network in the Greater Cornubia and the Greater DTP & Surrounds, as well as some constraints in the Shongweni and Hammarsdale locations. These voids require to be filled to enable the City's development intentions.



These voids require to be filled to enable the City's development intentions.

MAJOR ELEMENTS OF THE ELECTRICAL NETWORK



Bulk Electricity Supply

EThekweni's electrical networks have sufficient bulk capacity, with localised constraints in the Westmead, Springfield, and Assagay-Shongweni. Plans are in place to rectify these by 2023. The 20-year load forecasts are being revised and will then be used to update the 2011 Masterplan, an exercise that is scheduled for completion in 2016.

Eskom Supply Challenge

The interrupted bulk supply through Eskom's load-shedding, which was recently announced as being likely to end only in 2018, is a significant impediment to development, and particularly for Economic Development.

Alternative Energy Sources

In line with Green Economy objectives, the City is rolling out the methane harvesting on recently closed landfill sites, and has begun investigations into:

- The feasibility of a Peak Power Gas Turbine Electrical Generation Plant. The Gas Turbine would kick in during load-shedding, to eliminate the impact of load-shedding on commercial users and other large clients (such as hospitals and tertiary institutions)
- The generation potential of photovoltaic arrays on land-fill sites where methane levels have fallen to below being feasible for harvesting
- The generation potential of a range of hydro-turbine projects at reservoir inlets and outlets

Current Service Delivery to Existing Residential Uses

Service	% of eThekweni households served at applicable Service Standards	
Water	92.23	%
Sanitation	76.05	%
Solid Waste Removal	100.00	%
Electrical Connection	66.40	%

There is a Service Standard for each main typology of residential development.

- Rural service standards: One ground tank per household supplied with 300 L per day; Urine diversion toilet; Electrification only of densely clustered pockets; All weather surface to all public transport routes within communities having a density greater than 15 persons per Ha
- Informal Settlement standards: Communal ablution blocks (toilets and showers) within 200m of served households; High mast lighting for security; Prepaid electrical connections [19]; Access roads for waste removal, fire and emergency vehicles.
- Formal Urban service standards: Semi pressure water house connections; Waterborne sanitation; Metered electricity connections; All weather surface roads.

19 The above map shows the demand for household connections to formal households only. In addition, there is extensive demand arising from the policy decision to electrify informal settlements as well

IMPACTS OF TRENDS, DEMANDS & FEATURES

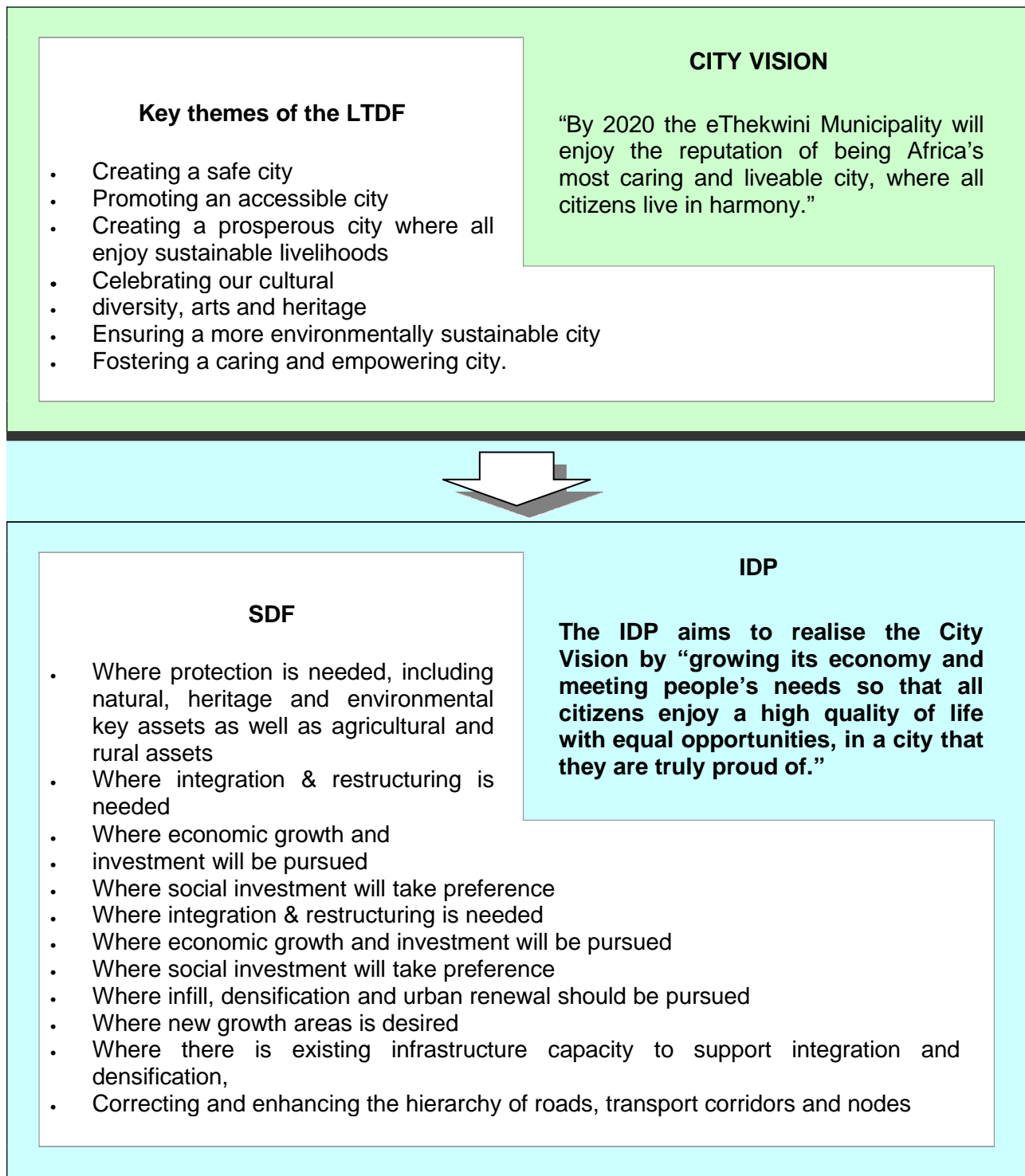
TRENDS & FEATURES (SORTED IN DESCENDING ORDER FROM HIGHEST NO. OF POSITIVE IMPACTS)	ECONOMIC & SOCIAL IMPACTS				
	SPATIAL IMPACTS			Prosperity	Inclusivity
	Connectivity	Efficiency	Density		
Well-developed port & airport, movement & communication systems	Y	Y	Y	Y	Y
Catalytic Greater Cornubia, Greater DTP, Keystone in implementation	Y	Y	Y	Y	Y
Phase 1 IRPTN (i.e. C3 MR 577 and C1 Rail) under construction	Y	Y	Y	Y	Y
Nucleus and spines of medium & higher density residential	Y	Y	Y	Y	Y
Western & Northern Aqueducts under construction	0	Y	Y	Y	0
Apparently keen interest in industrial land production in new locations	0	Y	?	Y	Y
Extensive eco-system	0	Y	Y	Y	0
Sufficient supply, in ok locations, of middle & upper income residential	0	Y	Y	Y	?
High incidence of informal settlements in & near low income suburbs	Y	Y	Y	X	X
Gateway-city for trade and travel	Y	0	0	Y	0
Strong local economy, especially freight, manufacturing, trade, finance	0	0	0	Y	Y
Rapid pace of communal ablution block construction in informal settlements	0	0	0	Y	Y
Urbanisation, mainly by the poor, mainly into informal settlements	0	?	Y	?	?
Increasing un-serviced formal non-urban housing next to urban uses	0	X	X	Y	0
Significant and growing non-urban residential demand	?	X	X	Y	?
Congestion in Port & BoP, and at key intersections on National Routes.	0	X	0	X	0
Bio-diversity loss	0	X	?	X	0
Shortage of skilled and semi-skilled labour	0	X	0	X	X
Unreliable electricity supply	0	X	X	X	0
Constraint in raw water supply	0	X	X	X	0
Significant basic residential services backlogs for informal settlements	X	0	0	X	X
Except ablution blocks, slow addressing of basic res. services backlogs	X	0	0	X	X
WUL's not to hand to support growth in key areas	0	X	X	X	0
Fallow industrial land	0	X	X	X	X
Long time-frames to approve and service industrial land	0	X	X	X	X
Development of social facilities not aligned to housing projects	X	X	0	X	X
Significant community services backlogs	X	X	?	X	X
Lack of IG planning and budget co-ordination	X	X	X	0	X
Segregated-use city	X	X	X	X	X
Low-density city	X	X	X	X	X
Low-income city	X	X	X	X	X
Commuter-city for low income communities	X	X	X	X	X
Under-developed ICT networks	X	X	X	X	X
Insufficient capital available to municipality	X	X	X	X	X

The trend / feature inhibits (X) promotes (Y), has unclear, unknown, or mixed impact (?), or does nothing positive (0)

PART C - Strategies and Programs

“One of the main expectations of the 2015/16 – 2017/18 BEPP is the identification, packaging and implementation of catalytic urban development projects within the Integration Zones. In addition there is a specific focus on the upgrading and development of informal settlements and other marginalised areas.” [20]

LONG TERM VISION AND THE SPATIAL DEVELOPMENT STRATEGY



The Eight IDP Plans

The IDP has eight plans. Each plan has objectives.

While all eight plans and their objectives are significant and essential, the ones with a direct spatial output are shown in bold text, the ones with indirect spatial output are shown in regular text, and the ones with little spatial relevance in greyed out small text.

PLAN	OBJECTIVE
1 Develop & Sustain our Spatial, Natural & Built Environment	Develop, manage and regulate the Built & Natural Environment
	Plan for climate protection
2 Develop a Prosperous, Diverse Economy and Employment Creation	Provide Economic Leadership and Intelligence
	Facilitate Private Sector Investment and Partnerships
	Facilitate Key Infrastructure Development & Maximise Local Benefit
	Facilitate Development in Priority Nodes and Corridors
	Enterprise and Sector Development
	Develop a Competitive Tourism Sector
	Facilitate Sustainable Livelihoods
3 Create a Quality Living Environment	Meet infrastructure and household service needs and backlogs
	Address community service backlogs
4 Foster a Socially Equitable Environment	Promote the safety of citizens
	Promote the health of citizens
5 Create a Platform for Growth, Empowerment and Skills Development	Human Capital Development
	Develop City as a learning City
	Foster healthy and productive employees
6 Embrace our Cultural Diversity, Arts and Heritage	Promote Access and Inclusivity
	Create economic participation through socio-cultural empowerment
7 Promote Good Governance & Responsive Local Government	Ensure accessibility and promote governance
	Create an efficient, effective and accountable administration
8 Be a Financially Accountable and Sustainable City	Budget strategically and sustainably
	Grow and diversify revenues
	Ensure value for money expenditure
	Follow sound financial management & reporting

Relationships of Metropolitan Program Groups to Metropolitan Planning Instruments

Cutting across the plans and objectives, the IDP emphasises:

- Asset Management
- Incremental Development Programs
- Catalytic Projects



INFRASTRUCTURE ASSET MANAGEMENT

The goal of Infrastructure Asset Management is to meet a deliver required levels of service cost-effectively through the management of assets. National Government legislated the need for local government to formulate Asset Management Programs. An Integrated Infrastructure Asset Management Plan (IAMP) is being established that will involve the management of the strategic assets: Electricity, Water & Sanitation, Roads, Transport, Parks & Leisure, Storm Water, Solid Waste and Property & Buildings. IAMP analyses the life cycle of an asset and predicts when maintenance needs to be done before the asset deteriorates beyond meeting the communities' needs or when it needs to be replaced.

The high cost value, high use value and long life of infrastructure points to a need for infrastructure to receive specific and focused management attention. The total replacement value of the infrastructure is more than R 180 billion. The Municipality is on a drive to introduce good municipal asset management practices, e.g.:

- Balancing new infrastructure with maintenance of existing
- Greater emphasis on proactive rather than reactive maintenance
- Precautions to not over-commit funds to new infrastructure.

Managing the demand for new infrastructure is also being promoted, e.g., by reducing:

- The loss of municipal water through replacing water pipes & repairing leaks
- Water theft
- Water pressures in the pipe network.

Consideration is also being given to alternative supply projects, e.g.:

- Reducing the dependence on river water through the re-use of water from treatment works
- Research into seawater desalination.
- Electricity from methane gas at municipal landfill sites and other alternative energy sources.

Asset Group	Replacement Value (R Bn)
Roads	58.500
Water	23.400
Buildings	23.400
Electricity	20.700
Sanitation	18.000
Coastal & Drainage	17.100
Other (uShaka etc)	12.600
Land	1.440
Fleet	1.350
Durban Solid Waste	1.080
Computers	1.080
Parks	1.080
ETA	720
Total	180.450

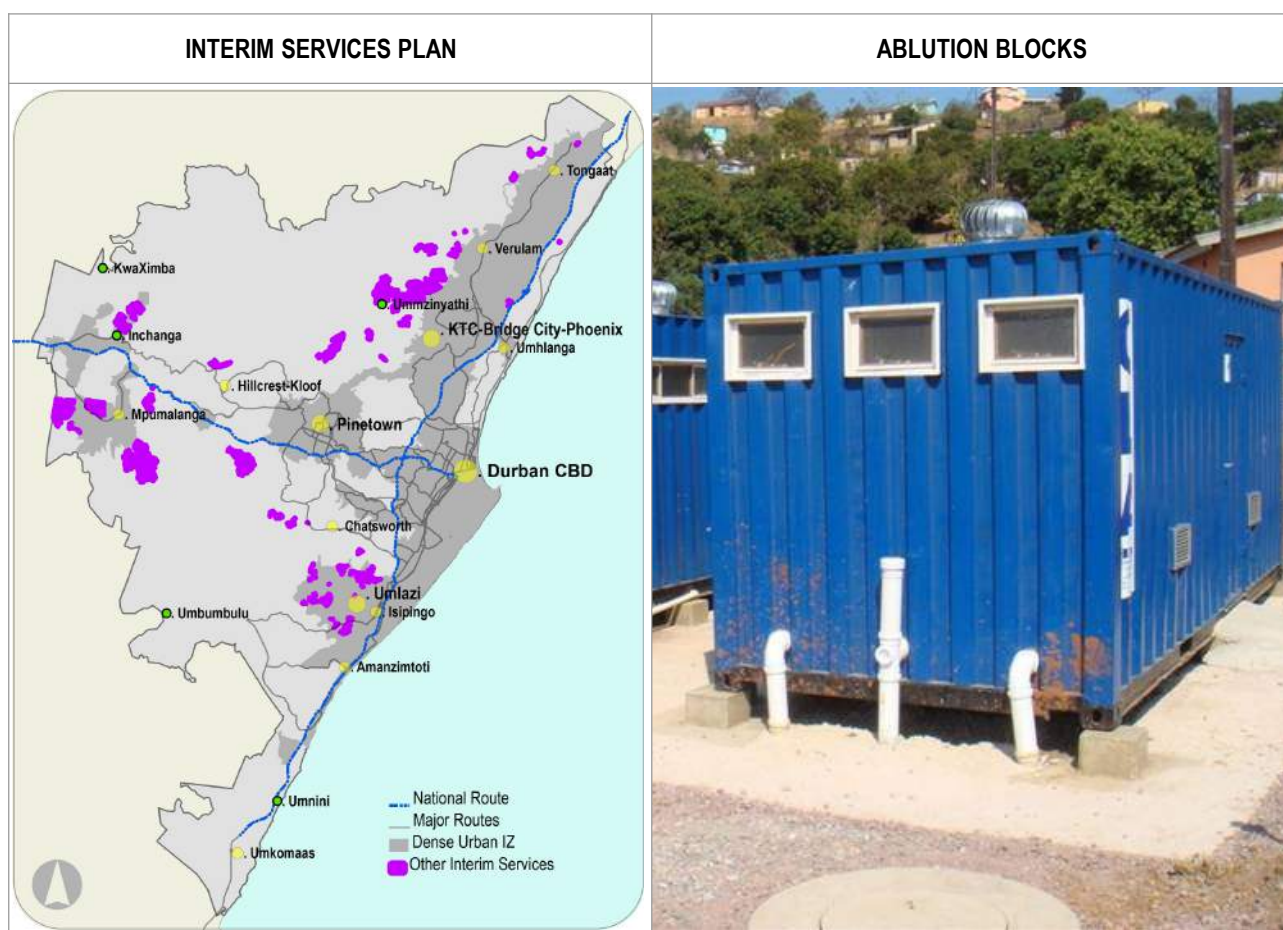
INCREMENTAL PROGRAMS

The Incremental Programs include:

- NDPP & Town Centre Renewal
- Economic Sector Support
- Interim Services
- Subsidised Housing
- Local & District Facilities
- Agri-Hubs, Community Gardens and Ward-base Projects

Interim Services

The Interim Services Program is a counterpart to the very long-term, slow and resource-intensive Subsidised Housing Program. The intention of the Program is to promote social equity and social inclusion by providing every household in Informal Settlements with access to basic engineering services within as short a period as possible. The criteria for selecting Informal Settlements for Interim Services are those settlements earmarked for upgrade in five years or more from now.



Many of the planned projects are in the Suburban Zone, and this complements the Dense Urban Zone very strongly.

Features of the Program include:

- Community Ablution Blocks
- Access Roads, Pedestrian Paths, Emergency Infrastructure
- Electrification – Communal Connections to Ablution Blocks and Streetlights, and Individual Connections
- Access to social facilities, particularly fire and police stations, clinics, schools, & sports-fields.

- Sustainable livelihoods.
- Use of Local Labour, Contractors, and Material Suppliers
- Community based maintenance of interim infrastructure.

The Communal Ablution Blocks element of the Program is very well advanced. About R 1.Bn has been invested over the past three years.

A pilot of access roads, pedestrian stairs & pathways, and fire-fighting infrastructure is complete, and a next phase is due to commence in 2015-16, and will benefit 134,838 households.

The program provides an opportunity to maximise the principles of the Expanded Public Works Program and the above services are implemented using labour intensive methodologies where economically and technically feasible. At a community level, the intention is use the infrastructure construction to stimulate socio-economic activities within communities, for job opportunities, and also with training such as life skills, technical skills and area-based livelihood skills. A multi-tier contractor development program is being considered, with a focus on sustainable employment opportunities, training, contractor development, and development of cooperatives.

Engineering Infrastructure to Social Facilities

For the provision of water, sanitation and electricity to schools and clinics, the role of the Municipality is to ensure that either bulk infrastructure is available to allow connections, or that acceptable alternative levels of service are availed to enable appropriate action to be taken by the KZN Education and Health authorities.

Subsidised Housing - Departure Points

Developing “Sustainable Human Settlements” is the departure point for framing the key challenges, and for formulating the strategic approach, the programs, and the project priorities. The municipality’s Housing Vision and Housing Mission of 1998, confirmed in 2006, and further developed in the 2012 Housing Sector Plan embraces the concept of sustainable human settlements.

The Housing Vision visualises “the creation of sustainable human settlements in eThekwini Municipality with a view to ensuring that ... all residents will have access to a housing opportunity which includes secure tenure, basic services and support in achieving incremental housing improvement in living environments with requisite social, economic and physical infrastructure”. [21] The Housing Mission [22] operationalises the vision statement.

Major obstacles to developing sustainable human settlements are the spatial fragmentation and low-density. Improved locations of housing, and where there is no choice as to location, then improved accessibility, especially of low-income housing, is a major goal of the Housing Spatial Plan.

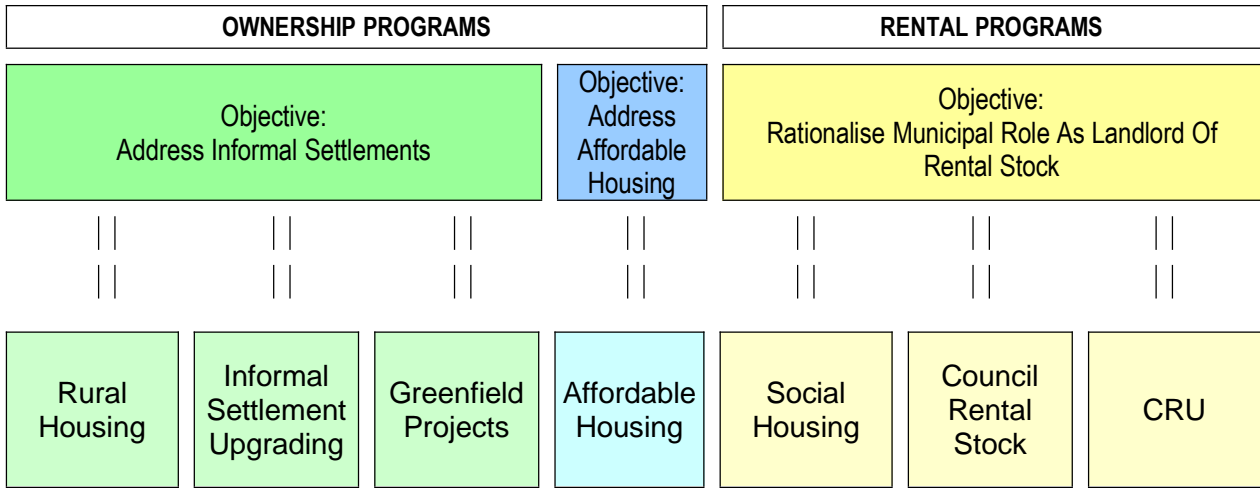
Housing Program Groups

The municipality has numerous housing programs, some of which overlap. The programs are grouped below in two main groups. The housing programs of eThekwini Municipality can be distinguished between those that are:

- Ownership - or in case of rural, permissions to occupy
- Rental accommodation. This includes rental accommodation over the long-term and rental accommodation being transferred to the residents.

21 Integrated Housing Development Plan. Ethekwini Municipality, 2006

22 A Strategic Housing Framework for The Durban Metropolitan Area. Draft. Ethekwini Housing, 1998

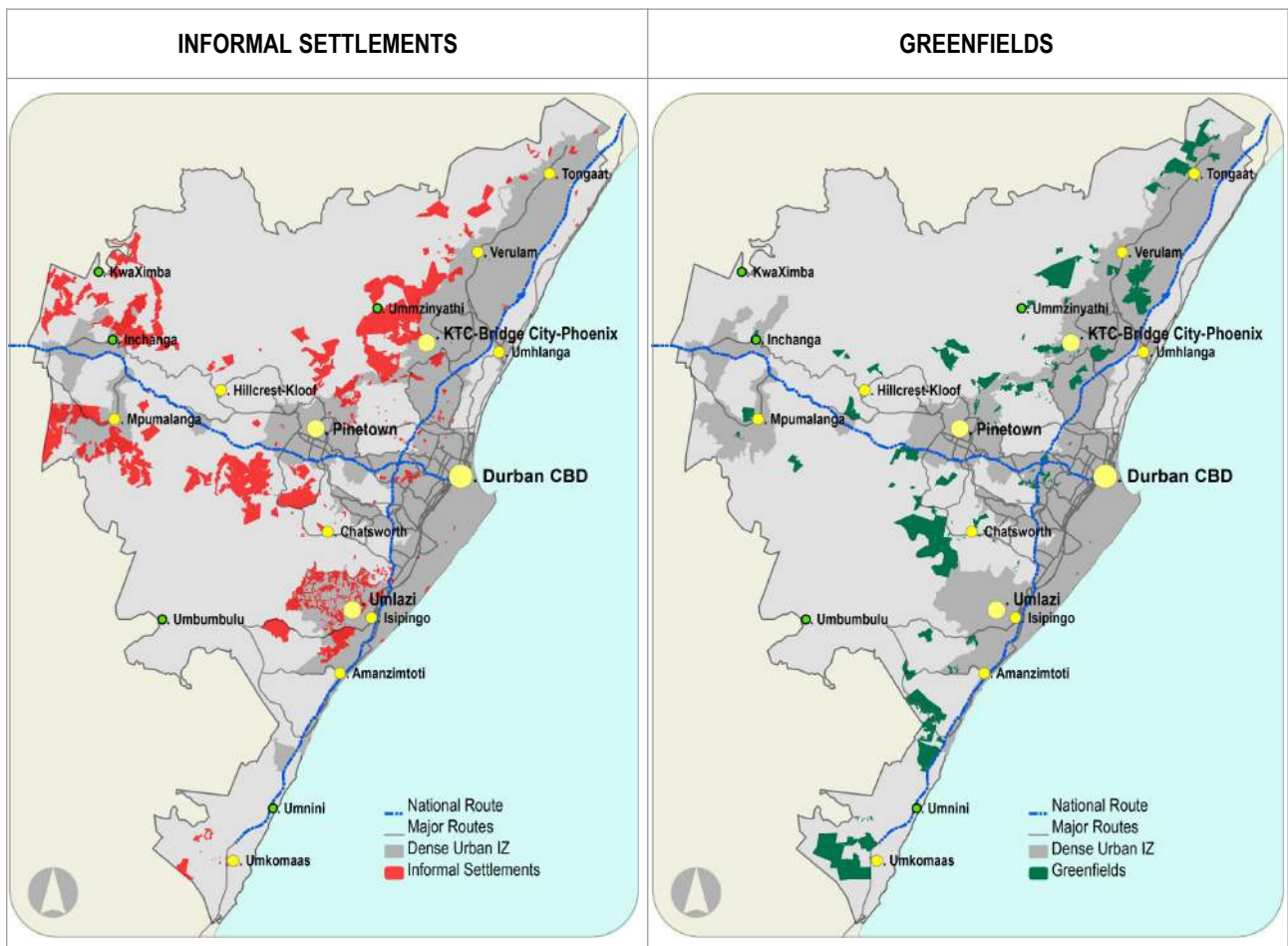


There are two spatial prioritisation tools for housing projects entering the pipelines.

- The IZ in which the project is located
- The ranking of the project within the Housing Spatial Prioritisation Model

Housing Projects and Integration Zones

Umlazi, Clermont, Cato Manor, Newlands, Clare Estate and Mpumalanga have almost all of their informal settlements within the Dense IZ. It is both a concern and a reflection of legacy, class issues and urbanisation dynamics that many informal settlements are not located within the Integration Zone.

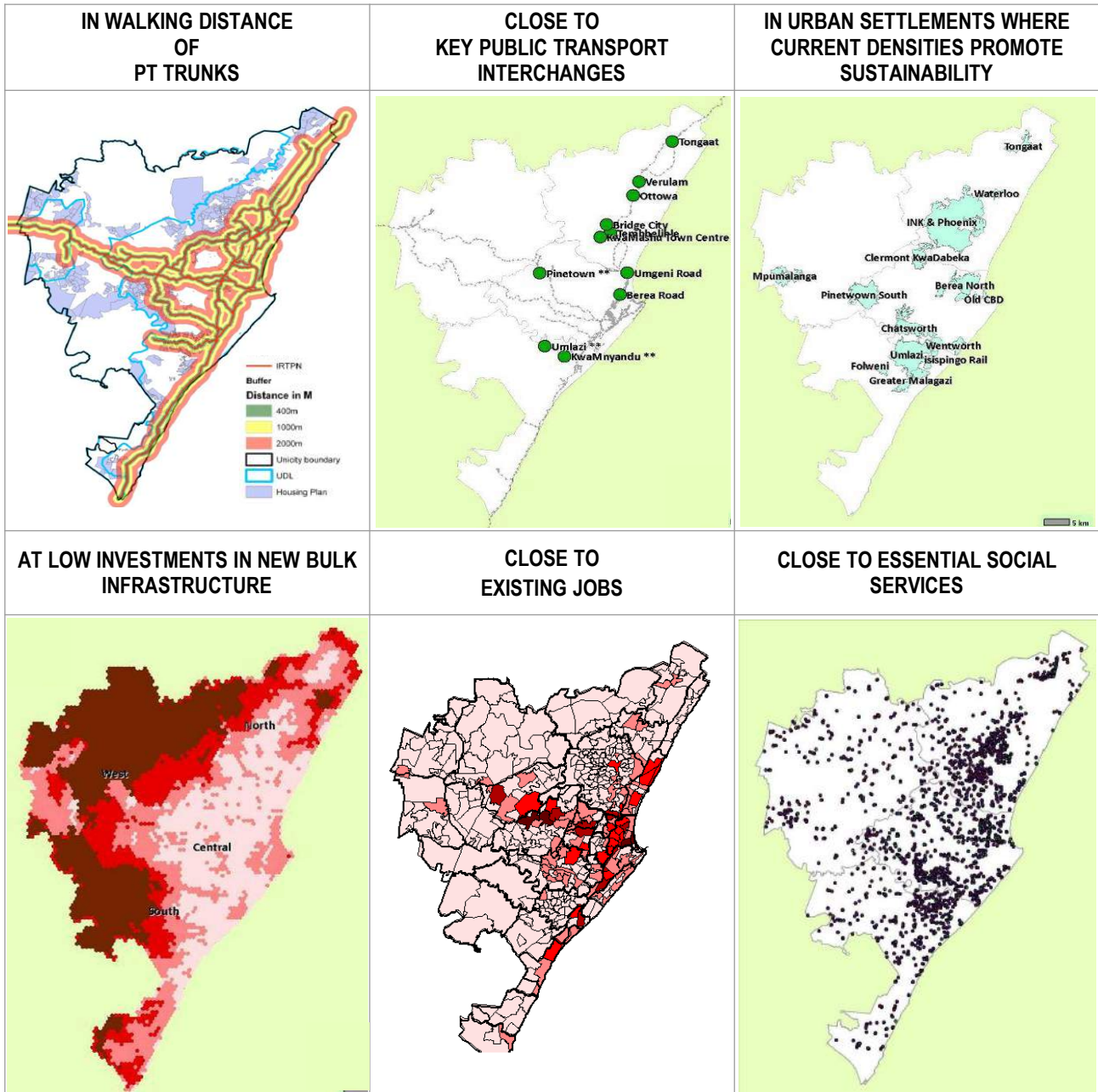


About a third of Greenfields Housing projects fall within the Integration Zone. This reflects the two-decade history of municipal land acquisition policies, the focus of land acquisition subsidies within

HSDG on cheap land, and until USDG and the HDA, the previous absence of effective and accessible funding instruments for medium and high-density housing.

Housing Spatial Prioritisation Model (HSPM) for Projects Entering the Pipeline

EThekweni has steadily been developing ITS GIS-based HSPM since 2011, when it first considered an explicit set of spatial criteria for choosing which candidate projects to develop further, and to inform the planning and typology brief for selected candidates. The HSPM's principles have been used as an aid to mapping of the IZ's.



Accessibility to PT and least-cost Infrastructure featured as major HSPM criteria. The Model went on to disaggregate the major criteria into sub-criteria, and to use relative weightings. Noteworthy new sub-criteria were proximity to the Feeder Routes of the IRPTN, and the disaggregation of the Cost Surfaces Model in order to prioritise Sewer as a more strongly-weighted sub-criterion than Water, Stormwater and Electricity. In 2014, the Model was updated to factor in Proximity to Catalytic Projects, and to factor in Disaster Considerations of fire, flash-flood / washaways, and landslide risks. A set of unique Model Weightings was developed for Greenfields, and another set for ISU.

Densification

The main strategy to support denser housing projects in better locations is to change the types of top-structures and service levels of roads. eThekwini uses its “Housing Typologies Study” as a benchmark. It set design and cost standards for housing typologies that could be unfunded using the available subsidies. The key findings were that a pedestrianised development of double story duplex typologies was the most cost-effective to achieve higher densities. They also promote simple property management by individual owners or by landlords. This typology can yield 60 to 100 dwellings per Ha net.

Social Facilities

The Review described backlogs in Social Facilities. About R 3.4 Bn would be required to extend existing facilities or build new ones to optimally respond to the under-provision, of which roughly half would be for eThekwini’s account. Additional funds will be needed for equipment, staffing, and other operating costs, and in numerous cases, for land acquisition.

In response, there is a need to decide:

- A commonly held IGR plan and budget
- Funding mandates where there appear to be overlapping mandates or unfunded mandates.
- Different space standards for different spaces (e.g. standards for schools in the Dense Urban IZ should differ from other IZ’s)
- Planning thresholds for Essential Services
- Reduced space standards and-or planning thresholds for Desirable Services, particularly basic recreation.
- Clustering standards (e.g. multi-use buildings, or site-sharing)
- Alternative methods to provide social services (e.g. greater multi-use of existing facilities, clustering of facilities, greater use of cellphones for citizen contact)
- Increased opening hours, increased opening days, equipment improvements, and process improvements at existing facilities
- Relative investment priorities of the different types of facilities
- Land acquisition needs and land acquisition processes.

The Municipality is in the process of establishing a Social Development Strategy ^[23]. It’s main components are:

- Social Policing to address both preventative and reactive policing
- Social Health aimed at marginalised and vulnerable groups and to complement Community Health
- Socio-Economic Development aimed at self-reliance through sustainable livelihoods
- Contribute to Sustainable Human Settlements through the provision of social services
- Social Cohesion through Arts, Sports, Culture and Heritage programmes.

From a spatial perspective, these strategies are to be supported by a Social Development Infrastructure Masterplan or Implementation Plan. The Masterplan will also have non-spatial aspects.

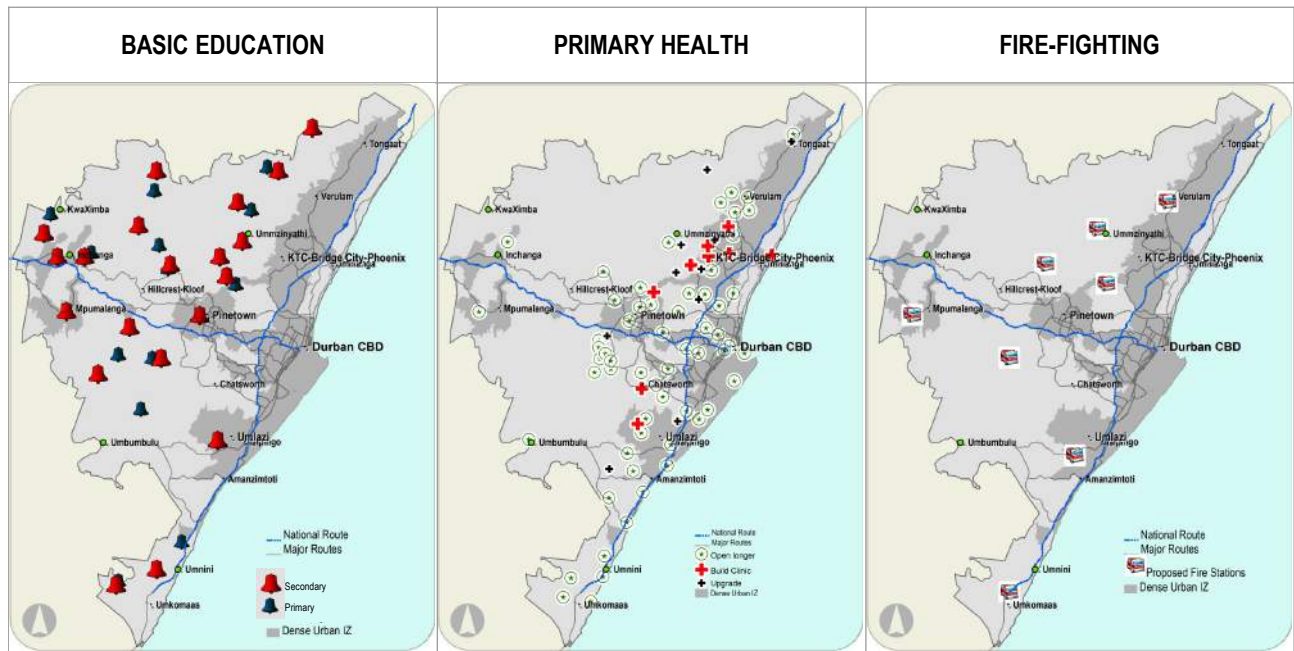
The intended outcomes of the Plan require coordinated and collective planning, budgeting and operating responses from all spheres. A process has already been facilitated by National Treasury to improve IGR between eThekwini and KZN. The initial IGR is likely to focus on Health and Education facilities.

Progress includes:

- Design of Education, Health, Sports, Libraries, Halls to form Local Social Hubs in Cornubia
- Agreement with KZNDoE on the new clustering standards of primary and secondary schools, on clustering of the schools with the other social facilities, on revised space standards for

schools so as to decrease the building footprint, and on the externalisation of sportsfields as community facilities (rather than as school facilities) with time-sharing with schools.

Spatial Distribution of Proposed Additional Capacity of Selected Essential Social Services



Sustainable Development

The National Strategy for Sustainable Development holds that natural systems provide the framework for sustainable socio-economic development. It recognizes that:

- Natural resources must be used sustainably.
- Socio-economic systems are embedded in and are dependent on ecosystems.
- Basic human needs must be met to ensure that the resources that are necessary for long-term survival are not destroyed for short-term gain.

The municipality's environmental direction is set through:

- D'MOSS
- Safe Operating Space Study
- Strategic Environmental Assessment
- Stewardship
- Poverty Alleviation Programmes
- Invasive Species Strategy
- Green Economy

The D'MOSS is critical to ensure the protection of bio-infrastructure, especially what remains of Critically Endangered [24] and Endangered Ecosystems.. eThekweni aims to acquire an additional 300 Ha during the next 5 years, and to extend environmental management to another 1,000 Ha

There is a need to develop and localise innovative financial models such as the Payment for Ecosystem Services approach used by globally leading cities and countries such as New York and Costa Rica. There is also an urgent need to remove the perverse incentives in current financing systems, such as the penalties placed on owners of vacant land by the current property rating system - which instead of encouraging private landowners to protect and manage bio-infrastructure, encourages development in entirely inappropriate areas.

24 Critically Endangered - facing an extremely high risk of extinction in the wild. Endangered - facing a very high risk of extinction in the wild.

URBAN NETWORK (UN)

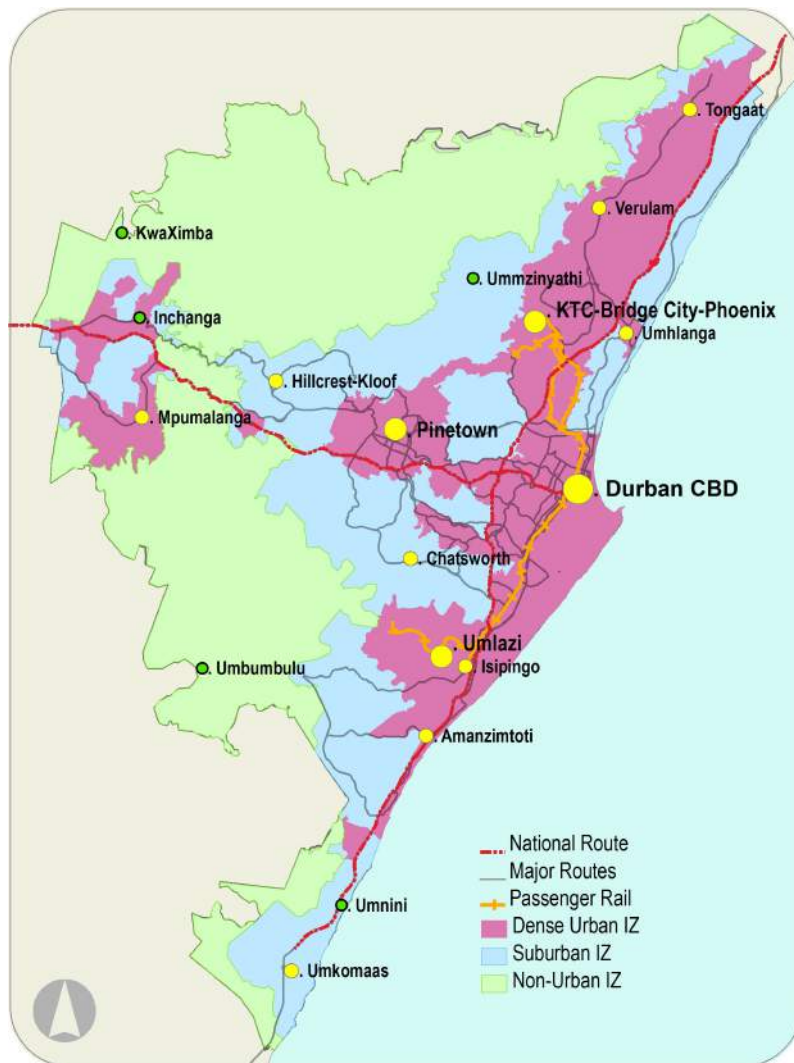
The UN is a City tool to make further strategic sense of the Metropolitan Program Groups, and to clarify the spatial and investment sense of the IDP's plans, objectives, and emphases. At a program and project level, the UN is an aid to clarify spatial targets, priorities, and budgets, particularly of Catalytic Projects, and also as an aid to differentiating investment responses for Incremental Programs according to where they are located in the UN.

Integration Zones

One of the aims of this year's BEPP is to refine and develop the Integration Zone concept so that it deals not only with objectives of integration and connections of land uses, class, race, and culture, but also deals with the related municipal support functions of planning, regulation, budgeting and administration, so that these too move toward becoming internally integrated. The rationale for this is that integrated development is more likely to occur and at better quality when the municipality as a key agency in enabling integration is itself practising the same approach within.

This BEPP also sets out to deal with the Integration Zones from a comprehensive view of spatial targeting. Its spatial targeting departure point is that integration should not be limited to only selected spaces making up the core of the urban fabric, but that integration can and must occur within the whole city – within dense urban areas, suburbs and non-urban areas. These have been mapped as three distinct Integration Zones.

A key point of this BEPP is that each of the Integration Zones requires an appropriate integration intervention and investment program, and where an appropriate balance is struck between stimulating growth, meeting social pressures, and meeting constitutional and legal obligations.



Dense Urban IZ's Composition, Features, and Broad Development Strategy

The Dense Urban IZ is a two to four km wide belt structured around the metropolitan, provincial, and national movement system. It includes all of the significant urban centres, economic zones with high concentrations of infrastructure, jobs, and economic activities, and the adjoining residential areas.

In addition to existing high-intensity uses, The Dense Urban IZ contains numerous opportunities for intense brownfields or greenfields urban development, including almost all of the Catalytic Projects.

This IZ also contains 90% of jobs (i.e. almost all), and 48% of the residences (i.e. roughly half). This IZ occupies about a quarter of the municipal extents.

The broad development strategy is to:

- Install core infrastructure and establish institutional arrangements and funding models to drive the City's own Catalytic Projects and to enable the Catalytic Projects led by others
- Commission the first phase of the IRPTN and improve regional routes
- Maximise residential densities, and promote higher levels of LED to support the new densities
- Fully upgrade informal settlements
- Maintain existing infrastructure and buildings
- Find opportunities to expand, intensify or redevelop properties for economic uses and high density residential.

Suburban IZ's Composition, Features, and Broad Development Strategy

The Suburban IZ is a one to two km wide low-density residential belt beyond the Dense Urban Zone. It is home to 1.6 million people (about 43% of the population), on a third of the municipal extents. Commuting to work and higher order social facilities is the norm. There tends to be a reasonable level of local engineering services. This IZ comprises are townships and informal settlements which came about through apartheid planning which rely on public transport, and which tend to suffer from backlogs or inefficiencies in local social facilities. This IZ also comprises former Indian and white suburbs that rely on private transport.

The broad development strategy is to:

- Improve the connectivity of the suburbs to the Dense Urban Zone.
- Improve the quality and effectiveness of existing facilities and in some cases to build new ones.
- Promote higher densities through typologies that are appropriate for residential suburbs
- Promote LED
- Quickly provide informal settlements with universal access to basic services alongside the slower upgrading program.

Non-Urban IZ's Composition, Features, and Broad Development Strategy

The Non-Urban Zone comprises low-density traditional areas, as well as densifying traditional areas, commercial farming and other open space and which in the past used to be isolated from the other parts of the city. Typically there are very basic services only, and poor or expensive connectivity to the city is a constant feature. The Non-Urban IZ supports traditional lifestyles, agriculture and nature conservation, and is home to 8% of the population (one in every twelve persons) 313 000 people in total, and about 43% (or nearly half) of the municipal extents.

The broad development strategy is to:

- Improve local social facilities and access to basic households engineering services (water, electricity, sanitation) according to the applicable non-urban standards
- Provide higher order social facilities and economic opportunities in selected nodes
- Improve connectivity (roads and internet)
- Encourage sustainable livelihoods and access to agri-processing and distribution.

Development Intentions per IZ

INTENTION	DENSE URBAN	SUBURBAN	NON-URBAN
LOCATION	<ul style="list-style-type: none"> - <u>Spines</u>: Most areas either side of the most of N2 and N3 corridors, along major rail- and road-based public transport, the CBD and all secondary & tertiary CBD's (i.e. UNS 'Nodes') - Areas bordering the spines extending approx 2km away. - Includes the major townships and their Hubs, many informal settlements, some suburbs and the old line suburbs 	Other suburbs, some informal settlements, industries, and townships	Areas outside the urban edge
INVESTMENT STRATEGY	<ul style="list-style-type: none"> - Universal access to basic services according to standard - Maintenance of infrastructure - Provision of social facilities to standard - PT & movement system improvements 		
	<ul style="list-style-type: none"> - Investment in core metropolitan infrastructure – WTW, WWTW., Freeway Interchanges: Port, Airport, IRPTN Trunks & Freight Routes, SIP - Bulk infrastructure upgrades and expansion, incl. ICT - High density of investment, and by a wide range of investors - PPP's where possible - Comprehensive, detailed planning - Deliberate rezoning for high densities 	<ul style="list-style-type: none"> - Improved feeder PT - Interim Services to Informal settlements 	<ul style="list-style-type: none"> - Improved complementary PT - Monitoring of growth
LAND USES & FEATURES	<ul style="list-style-type: none"> - Economic, - High-density Residential - Mixed Use - Higher Order Social Facilities - Busy - High densities of investment, people and-or jobs - Coarse and fine-grain economic uses - District Community Services clustered with Sub-Metropolitan services 	District Community services at key locations	
		<ul style="list-style-type: none"> - Primarily Residential - Intensive Uses at key intersections 	<ul style="list-style-type: none"> - Residential - Subsistence & Commercial Agriculture - Agri-processing - Cultural & Eco-tourism

INTENTION	DENSE URBAN	SUBURBAN	NON-URBAN
CONTRIBUTIONS TO ECONOMIC HEALTH	<ul style="list-style-type: none"> - Improved Rates Revenues - High Sales of Water and Electricity 		Job Retention & Creation in: Tourism, Agriculture, Agri-Processing Environmental
	<ul style="list-style-type: none"> - Improved City GDP - Job Retention & Creation in Manufacturing, Logistics, Retail, Services, Finance 	Job Retention & Creation in Domestic Employment, Services, Retail	
PROPERTY DEVELOPMENT FEATURES	<ul style="list-style-type: none"> - High FAR - Extensively Developed - No Vacant or Underdeveloped Properties - Property Improvements, Extensions, and Redevelopments 	<ul style="list-style-type: none"> - Formalisation & Regularisation - Property Improvements 	
		<ul style="list-style-type: none"> - Moderate FAR 	<ul style="list-style-type: none"> - Low FAR - Infrastructure for agricultural, environmental & tourism uses
WHAT GETS INCLUDED	<ul style="list-style-type: none"> - Up to 2km either side of Major Movement Routes, which is a short PT hop or 30 min walk - IZ expands to include cadastral extents of all significant existing economic uses because Economic is a key use - IZ includes an 800 m radius at rail stations because Investment interest will spatially expand around stations once they function as key points of mixed and intensive use - IZ expands to include Informal Settlements because of Inclusivity agenda - IZ expands to include POS because future development possibilities and-or interface with wider corridor 	From edges of Dense Urban up to urban edge	From urban edge to metropolitan boundary

The MTERF reflects that the municipality has intuitively been making broadly appropriate bottom-line quantum allocations to each of the three spaces. The closer inspection of the MTERF shows that while there has been improvement, there is space for more to be done to spatially concentrate and focus line budget items on agreed spatial priorities.

MTERF SUMMARY	Dense Urban	Suburban	Non-Urban	Total
2014-15	3 969	2 776	867	7 612
2015-16	4 197	2 910	952	8 059
2016-17	5 138	3 288	1 023	9 449
Total	13 304	8 975	2 841	25 120
% OF TOTAL	53%	36%	11%	100%

Developmental Strategies for Different Parts of the Dense Urban IZ

The Dense Urban IZ has a Southern Arm, a Northern Arm, the Pinetown Complex and the Western Complex.

The South Arm up includes Durban CBD, the Umlazi Primary Hub up to the Umgeni River. Its functions are logistics, industry, port, and residential.

The Pinetown Complex comprises Pinetown and surrounding suburbs. Its functions are industry and residential. The South Arm and the Pinetown Complex are already developed, although not optimally so in every location.

The development strategy fore the Southern Arm and the Pinetown Complex here is one typical of brownfields strategy, namely identification of inefficiencies and sub-optimal uses, identification of opportunities for infill, densification and intensification, and intervention to redevelop where it will be catalytic to do so. Although these spaces are largely brownfields, there are a significant individual greenfields sites (especially the old airport site).

The North Arm runs from the Umgeni River and includes the Bridge City / KwaMashu Primary HUB and the Aerotropolis. Its functions are airport and logistics, and residential. The Western Complex comprises Mpumalanga, Hammarsdale, Cato Ridge and Harrison Flats. Its functions are logistics, agri-business and residential, and it plays a gateway / linkage role relative to the N3.

The North Arm and the Western Complex have significant tracts of greenfields. The development strategy would be typical for that of greenfields, i.e. infrastructure investment, mobilisation of private and public investor interest, accompanied by investment incentives. In the North Arm there are greenfields opportunities for economic and residential uses in the greater Aerotropolis precinct. The Western Complex has significant greenfields opportunities for economic development in response to the N3 corridor and the freight route from the Port.

Primary & Secondary Urban Network

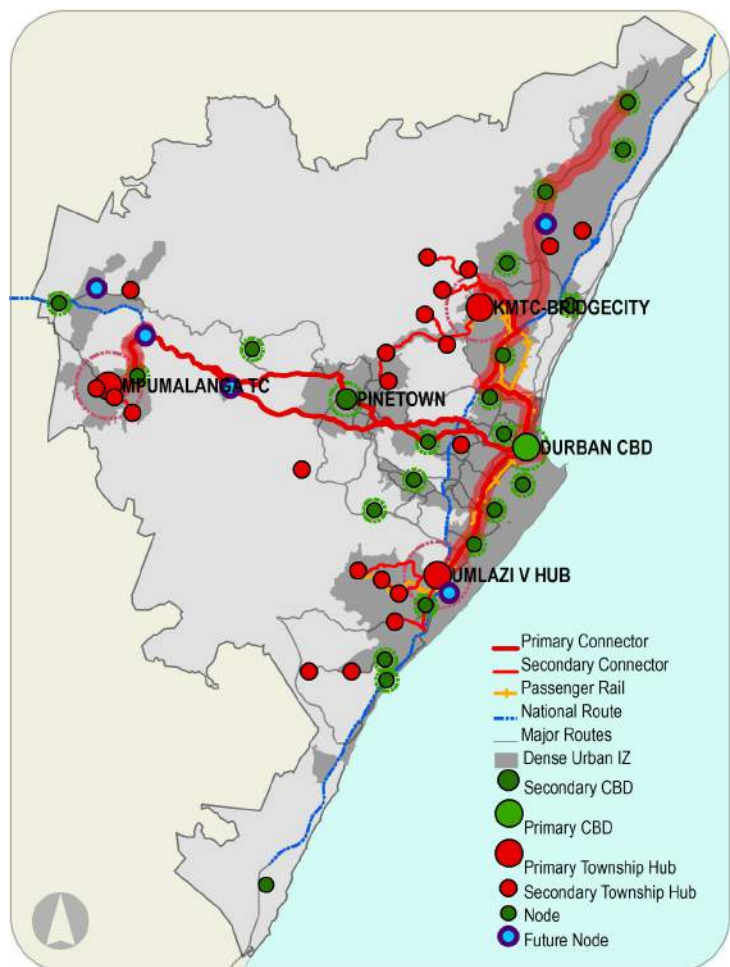
In addition to the Integration Zones, the Urban Network consists of the other significant Urban Elements that are lined to each other.

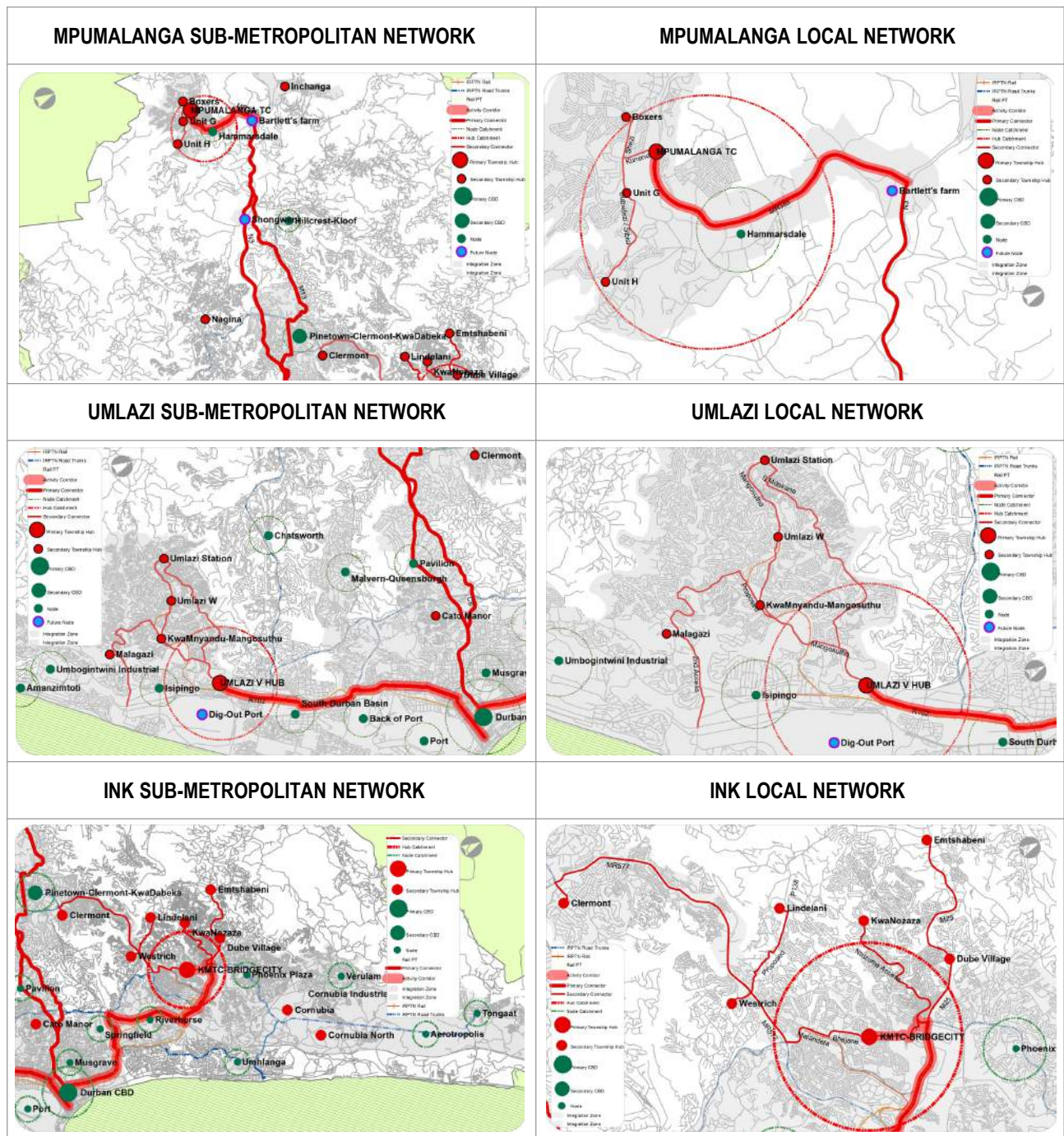
The Urban Network manifests at Metropolitan, Sub-Metropolitan and Local & District scales.

At the Metropolitan scale, each Primary Township Hub connects to the CBD via Primary Connectors.

At the Sub-Metropolitan scale, each Primary Township Hub relates to a sub-metropolitan movement system and to a context of Economic Nodes.

At the Local & District scale, each Primary Township Hub is connected to Secondary Township Hubs by Secondary Connectors.





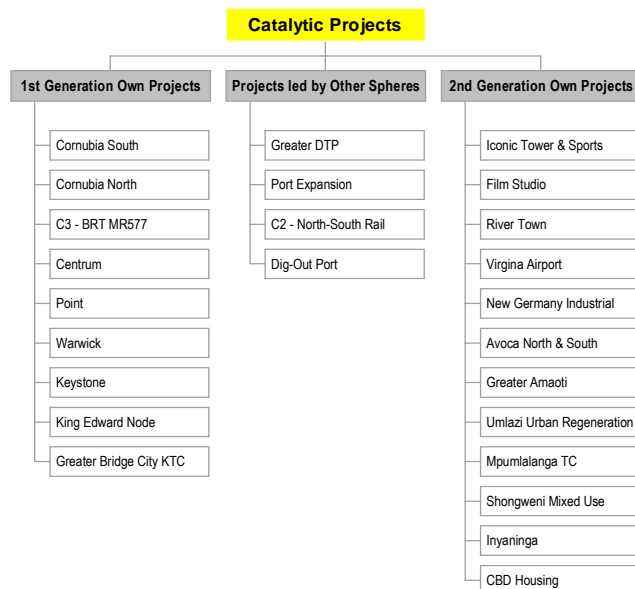
CATALYTIC PROJECTS

Catalytic Projects:

- Are integrated, that is mixed and intensified land uses where the residential land use caters for people across various income bands and at increased densities that better support the viability of public transport systems;
- Are strategically located within integration zones in cities; and re game changers in that the nature and scope of the projects are likely to have significant impact on spatial form.
- Require major infrastructure investment;
- Require a blend of finance where a mix of public funds is able to leverage private sector investment as well as unlock household investment;
- Require specific skills across a number of professions and have multiple stakeholders.” [25]

EThekweni’s pipeline of Catalytic Projects is grouped into three sub-pipelines:

- The First Generation of Catalytic Projects which eThekweni has substantial control over
- Catalytic Projects led by Other Spheres, particularly SIP 2
- A Second Generation of Catalytic Projects which eThekweni has substantial control over



FIRST GENERATION OF OWN CATALYTIC PROJECTS

‘First Generation’ Projects are so-called because:

- They all fall within the Dense Urban IZ
- They could be in the Implementation Phase
- If they are not yet in the Implementation Phase, they are either well advanced in the Preparation Phase, or they have been strongly prioritised politically
- They are intended for substantial completion within a decade

In the First Generation are:

- Cornubia South
- Cornubia North
- C3 – BRT on MR 577
- Centrum Redevelopment
- Point Waterfront & Cruise Terminal
- Warwick Redevelopment
- Keystone
- King Edward Node
- Greater Bridge City, KTC and KMA

They will lead to significant:

- Fixed capital formation (R 74 Bn)
- New lettable FAR (8 Mill m²)
- New dwellings for a range of income groups (52,000 HH)
- Rates revenue (R 3 Bn p.a.)
- Permanent jobs (206,000)

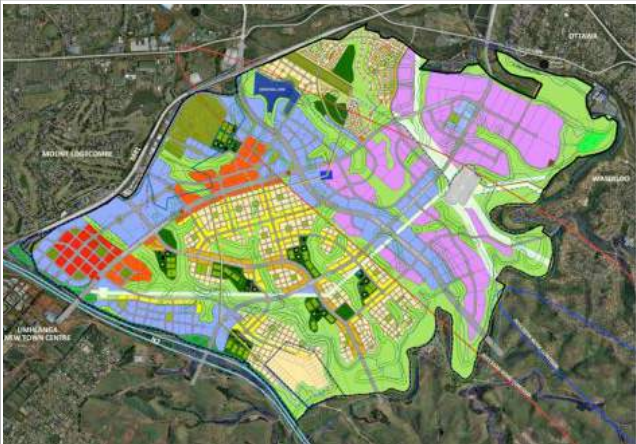
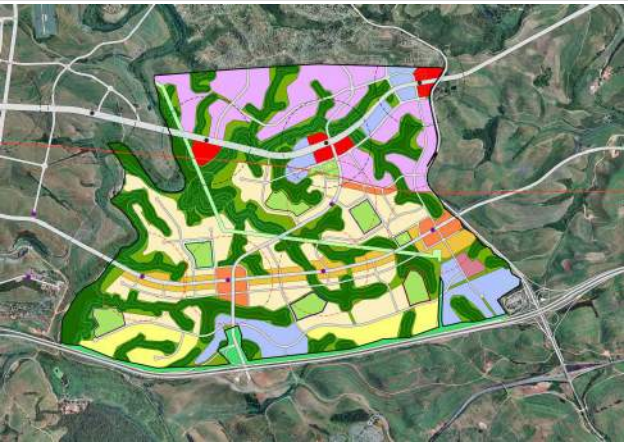


Project	Lettable FAR	Res Units	Proj Val	Private As %	Public Shortfall	Rates P.A.	Permanent Jobs
Greater Cornubia	1,626,429	40,000	37.63	62%	8.92	0.73	48,389
C3 on MR 577	TBD	TBD	7.00	TBD	7.00	TBD	TBD
DTP	3,715,714	0	31.82	93%	2.10	1.29	120,980
Centrum	750,000	6,000	19.80	67%	1.50	0.29	14,286
Point Waterfront	750,000	0	15.50	97%	0.50	0.61	7,500
Warwick Redevelopment	TBD	TBD	0.50	TBD	0.25	TBD	TBD
Keystone Commercial	504,529	0	4.39	92%	0.35	0.10	14,415
King Edward Node	0.00	652	0.49	50%	0.24	TBD	TBD
Bridge City KTC KMA	600000.00	5,000	1.80	50%	0.90	TBD	TBD
Subtotal	7,946,671	51,652	74.30	71%	21.76	3.02	205,570

SQM No. R Bn % R Bn R Bn No

Cornubia South & Cornubia North

Cornubia North & South are on greenfields sites in the North Arm of the Integration Zone. They are strategically located, along the N3 and close to Gateway and near DTP. The two Cornubia's will significantly extend the city northwards, and will require R 30 Bn to R 50 Bn in public and private investments over the next 10 to 20 years.

CORNUBIA SOUTH MIXED USE		CORNUBIA NORTH MIXED USE	
			
24 Bn Private Investment	48,500 Permanent Jobs		
14 Bn Public Investment	40,000 Dwellings, half through subsidies		
38 Bn Total Investment	1.63 Million SQM Lettable Floor Area		

They will deliver:

- 50,000 residential units aimed at the subsidised, gap, and middle income markets
- 2.3 million m² of commercial floor space
- 2 x Govt Offices / Civic Centre
- 2 x Fire Station Suburban
- 4 x Community Health Centre & ARV
- 3 x Children's Home

- 3 x Police Station
- 2 x Swimming Pool
- 3 x Old age Home
- 5 x Local Library
- 7 x Primary Health Clinic
- 6 x Community Centre
- 15 x Secondary School
- 30 x Primary School
- 18 clusters x Sports Fields & Park Space

There is a formal development co-operation agreement between the municipality and the Tongaat Hullett Developments (THD). The planning costs are shared and there is engagement around cost sharing of bulk infrastructure and the phasing of this infrastructure to enable low-income housing and industrial land to be developed at the same time.

THD, Sanral and eThekwini have been sharing movement network costs. For the N2-M41 interchange where KZN DoT was a significant contributor. eThekwini’s traffic generation models indicate that the provincial contribution should be 40-50%, but agreement has not been reached with KZN DoT, who propose to contribute about 5%. This has contributed to some delays in the development of Cornubia South, and as well as placing strain on the co-operation agreement between eThekwini and THD.

Cornubia South will be fully developed over 20 years but the human settlement component is likely to be complete in 7-10 years. Of its design yields of 25 700 units, about 11,500 will be low cost units and the balance will be gap housing of 7,000 units and 6,000 middle-income units. [26] Phase 1A is complete and consists of approximately 480 low cost units, and in respect of the industrial land, rapid take-up has been experienced with almost all of the 80 hectares already sold.

Cornubia South has gone through the legislative submission process and an environmental approval is expected by mid 2014. Cornubia North is the land between Cornubia South and the DTP. A Framework Plan [27] has been formulated and is currently in the process of discussion internally and with provincial departments.

RPTN Phase 1 – Corridor 3 (C3) on MR 577 from Bridge City to Pinetown

Most of employment opportunities are along the N2 and N3 including the CBD, Pinetown, the South Durban Basin, and the Northern Employment Cluster. There are 600,000 PT passengers in the peak. High levels of ridership are key to public transport viability. The highest residential settlement concentrations are INK, Phoenix, Umlazi and Chatsworth.

EThekwini intends to have a “world-class transport system with a public transport focus, providing high levels of mobility and accessibility for the movement of people and goods in a safe, sustainable and affordable manner. The strategy focuses on reducing overall demand for road space whilst maximizing the effective utilization and efficient operation of road infrastructure for purposes of private and public transport use. It also places an emphasis on strategies which support and encourage use of public transport.” [28]

he IRPTN consists of North-South rail backbone from Bridge City to Isipingo and a number of BRT routes. There will be 18 transfer station ranks from rail to road. Currently, 50% of the population are within 800m (10-15min walk) of a scheduled public transport service. With the implementation of the IRPTN, this number is forecast to rise

R 3.2	Bn Roads
R 2.6	Bn Depots, Stock
R 5.8	Bn Total Investment
	Bridge City Intermodal - Complete
	Roads - Underway

26 Cornubia [South] Framework Presentation. Tongaat Hullett and eThekwini, Dec 2010

27 Cornubia North Framework Presentation. Tongaat Hullett and EThekwini, Nov 2013

28 Integrated Development Plan - 5 Year Plan: 2012-13 to 2016-17 – 2013-14 Annual Review. EMA, 2014

to 85% of population.

The phasing and percentage trunk public transport demand accommodated by each phase is:

PHASING & ROUTES		% OF TRUNK-FEEDER TRIPS	COMMISSIONING
Phase 1A	Mynah and People Mover (Inner city)	In Research	2015
	Rail - Bridge City to Isipingo	40	2016
	C3 - Road - Bridge City to Pinetown	25	2016
Phase 1B	C1 - Road - Bridge City to CBD		2017
	C9 - Road - Bridge City to Umhlanga		2018
Phase 2	C5 - Chatsworth to CBD	20	2022
	C7 - Chatsworth to Hillcrest		
Phase 3	C4 - Bridge City to Prospecton via M25	9	2025
	C8 - Tongaat to CBD via Umhlanga		
Phase 4	C6 - Mpumalanga to CBD	6	2027

Due to funding constraints, Phase 1 has been split into two.

Progress to date has been:

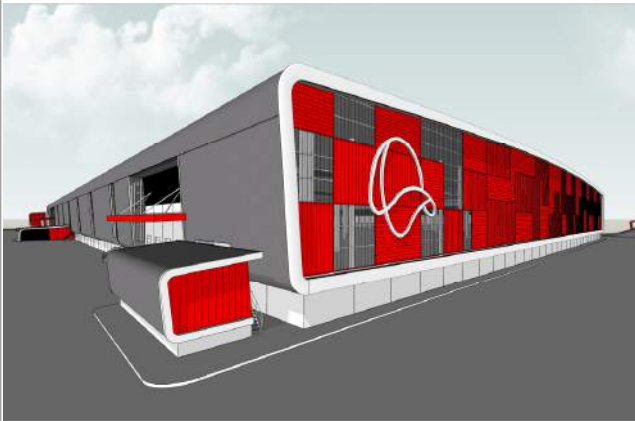
- Upgrading and refurbishing existing depot facilities that form part of the IRPTN
- Procured new fleet (80 Commuter buses and 44 low entry buses) that will be integrated into the IRPTN.
- Implementation of smart card ticketing and revenue collection systems that will be the foundation for the Phase 1 IRPTN ticketing and revenue collection system. Bridge City Intermodal – Complete
- C3 BRT Roads - Underway



Keystone

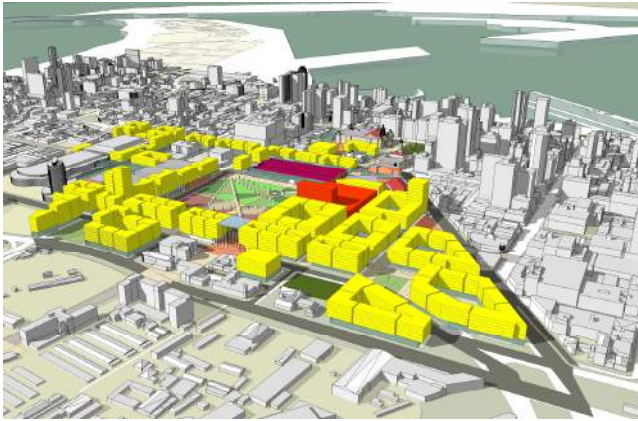

Keystone is a National Distribution Park on the N3 near Mpumalanga. A R 275 Million Freeway Interchange is under construction, and will provide access, and platforming of the industrial land has started.



A national retailer is set to build a Distribution Centre, which is expected to catalyse further economic developments in the Hammarsdale precinct.


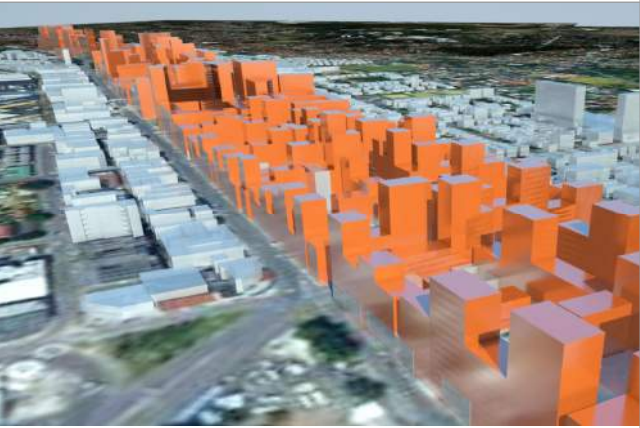
KEYSTONE	
	
R 4.04	Private Investment
R 0.35	Bn Public Investment
R 4.39	Bn Total Investment
R 0.10	Bn Rates p.a.
14,400	Permanent Jobs
0.50	Million SQM Lettable Floor Area
	Western Sub-Metro Catalyst
	On SIP2

Remaining Own Projects in the First Generation

The Remaining Own Projects in the First Generation are in the Preparation Phase.

CENTRUM		POINT	
			
R 19.0	Private Investment	R 15.0	Private Investment
R 6.0	Bn Public Investment	R 0.50	Bn Public Investment
R 25.0	Bn Total Investment	R 15.5	Bn Total Investment
R 0.29	Bn Rates p.a.	R 0.61	Bn Rates p.a.
7,500	Permanent Jobs	7,500	Permanent Jobs
0.75	Million SQM Lettable Floor Area	0.75	Million SQM Lettable Floor Area
	Library & Council Chamber		FDI
	PT Multi-Modal		International Tourism

WARWICK	KING EDWARD NODE
	
<p>R 250 Mill Private Investment R 250 Mill Public Investment R 500 Mill Total Investment R 500 Mill Total Investment R 3-5 Bn Future Phases.</p>	<p>650 New Units Old Sports Club 325 Mill, Private or PPP</p>

GREATER BRIDGE CITY KTC KMA	SOUTHERN DENSIFICATION CORRIDOR
	
<p>Bridge City Intermodal 60 ha Serviced site Space for 5,000 Housing Units Government Mall intended Existing PPP</p>	<p>Residential Densification around Rail 25,000 Residential Units Intended Mixed use Opportunities at Stations Pilot project...King Edward Node</p>

CATALYTIC PROJECTS LED BY OTHER SPHERES

Rail Corridor C2

Corridor C2 is a rail-based corridor and comprises feeder routes to rail services operated by PRASA, selected upgraded sections of the commuter rail system (existing heavy rail; including the new line to Bridge City); and modernized rail terminals within an integrated network. The major upgrades can be seen in the map below. To date, strategic planning has been carried out on several station upgrades, the tracks, bridges, platforms, signalling technology (robots, points machines and relay rooms), telecommunications systems (surveillance cameras, PA) and the electrical systems (cables, power lines, gantries). The C2 feeders will be further supported by Non-motorised transport (NMT) infrastructure that is further developed by the adopted NMT policy of eThekweni Municipality.

Greater DTP

Greater DTP comprises:

- Passenger Terminals
- AgriZone - Greenhouse, a nursery, tissue lab, research and growing areas.
- Cargo Terminal
- Dube City - a trade environment directly linked to the airport.
- Dube iConnect - A provider of telecommunications and IT to the community of users within and outside of the Dube TradePort.

The Passenger Terminal's FAR is 103,000m². It allows for 7.5 Mill passengers p.a. with opportunities for significant expansion, and 45 Mill passengers p.a. are projected by 2060. The airport currently handles 5 Mill passengers p.a. [29]

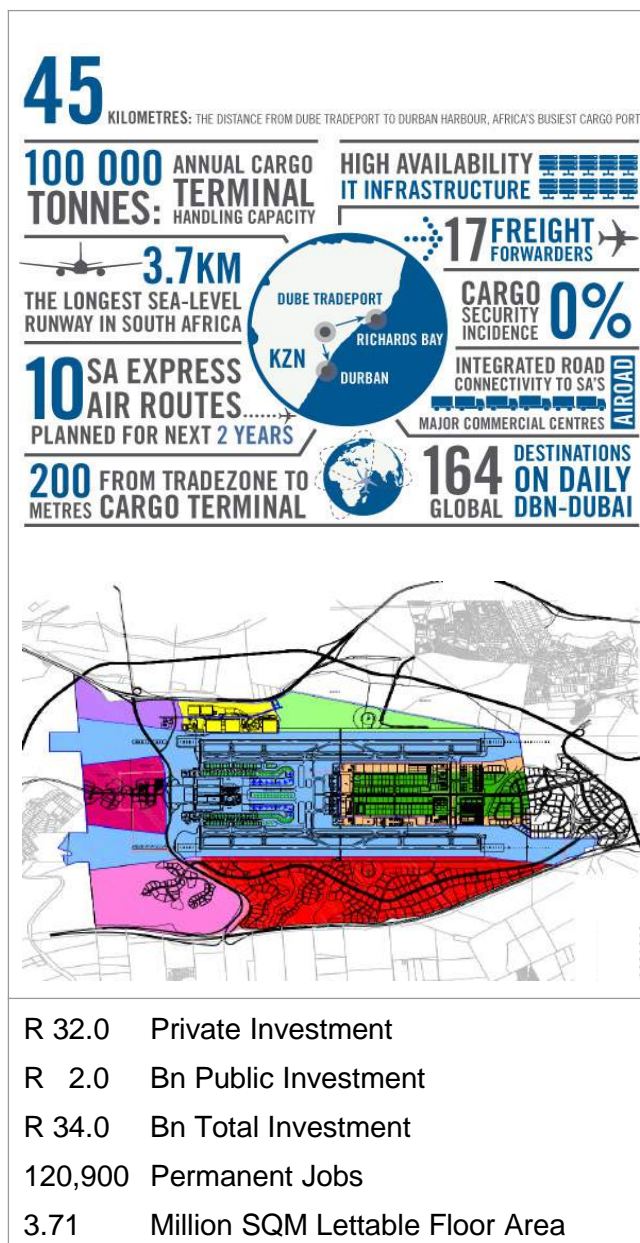
The Cargo terminal has the capacity to handle 100,000 cargo tonnes p.a. [30]

KZN is poised for a multi-billion Rand injection in foreign direct investments as a consequence of a landmark agreement between DTP and The Action Group, a highly diversified India-based business conglomerate. This was announced during the fifth BRICS Summit, held in Durban during March 2013, and paves the way for the development of a Mega Industrial Integrated Township, providing a critical business gateway for the benefit of specifically, though not exclusively, investors from BRICS countries. [31]

In a new and critically important development, KZN Economic Development and Tourism Department, together with the Department of Trade and Industry, has proposed that Dube TradePort be declared a Special Economic Zone, or SEZ, for the benefit of trade and industry, a move which would greatly boost trade expansion, economic development and export diversification at Dube TradePort. [32]

SIP 2 – Phase 1 – Port Redevelopment

Durban is the premier gateway port in the South African ports system, with the lowest logistics costs. It handles high-value cargoes in a complementary relationship with the Port of Richards Bay, which focuses on bulk exports of minerals. Together the ports service the maritime needs of South Africa's eastern seaboard. As the South African economy grows, the capacity of the port needs to be increased. There is already pressure on the port, the roads, and in back of port areas, despite recent expansion projects. At an 8% annual container growth forecast the existing transportation infrastructure will reach its limits in 2019. Unless significant expansion takes place, freight will be forced to relocate to more distant ports.



29 <http://www.acsa.co.za/home.asp?pid=8048>. Accessed Feb 204

30 <http://cargoterminal.dubetradeport.co.za>. Accessed Feb 204

31 Annual Report 2012-13. Dube Tradeport, 2013

32 Annual Report 2012-13. Dube Tradeport, 2013

As containerised cargoes are the most important freight type, the phases are defined by a sequence of container expansion projects.

- 1st Phase - Short-term developments within the existing Port of Durban.
- 2nd Phase - Dig-out port on the old airport site.
- 3rd Phase - Dig-out basin on the site of the Bayhead rail yard

The 1st Phase will increase the container capacity of the Port of Durban from 3.6 to 4.9m TEU, and includes:

- Extension of the Pier 1 container terminal at Salisbury Island.
- Conversion of part of Maydon Wharf into a container terminal for smaller vessels.

Other port projects include upgrades to liquid bulk capacity at Island View, a terminal for the New Multi-Product Pipeline to Gauteng, reconfiguration of Margaret Mncadi Avenue, and the relocation of cruise liner facilities to A-B berths.

SIP 2 – Phase 1 – Freight Routes

This phase includes:

- Upgrading of the existing road corridors
- Upgrades to three existing interchanges along the M7 - N3 corridor
- A 24-hour freight monitoring system
- Truck holding areas.
- East-west freight route from Bayhead to N2
- Inter-modal logistics transfer point in the vicinity of Cato Ridge / Camperdown.

R 250	Bn Total Port & Freight
R 12.5	Bn p.a. contribution to KZN GDP

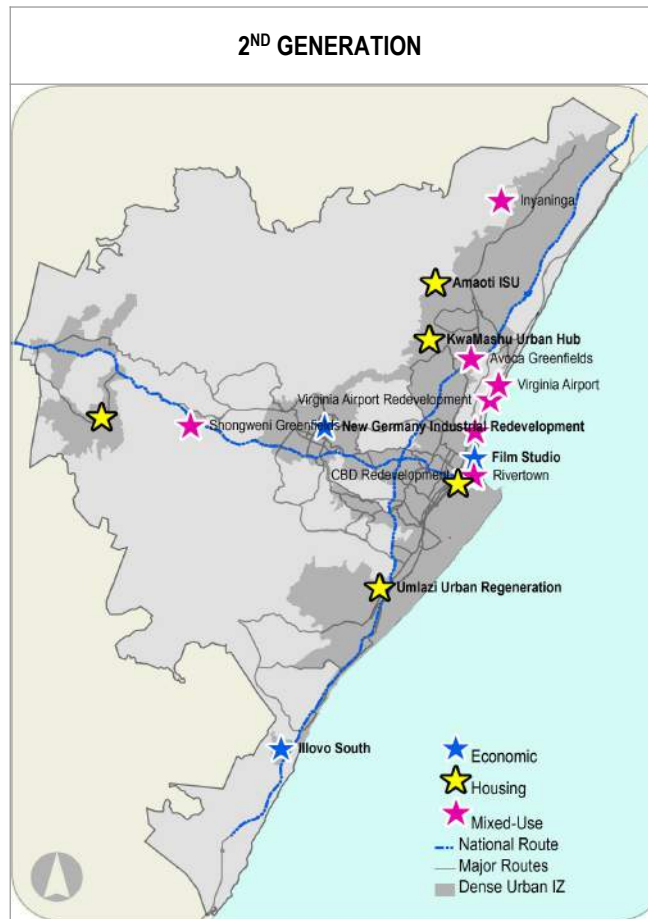
SIP 2 – Phase 1 – Back of Port and Cato Ridge

A local area plan is being finalised for the back-of-port areas between Bayhead and the Airport site. This will provide a framework for better utilization of the limited space available, address congested areas with incompatible land uses, and identify growth opportunities for logistics and transportation on the proposed East-west freight route from Bayhead to the N2. The development of intermodal hubs in Cato Ridge / Camperdown and at DTP will provide more space for port-related industries and service providers, and facilitate improved connectivity. A local area plan for Cato Ridge and a development framework for the DTP intermodal hubs are in progress.

Second Generation of Own Catalytic Projects

There are sixteen candidate projects In the Second Generation:

- Amaoti In Situ Upgrade
- Auto Supply Park for Toyota
- Avoca



- Film Studio
- Greater Mpumalanga Urban Redevelopment
- Greater Umlazi Urban Redevelopment
- Greyville Race-course Greenfields
- Iconic Tower & Sports Precinct
- Inyaninga
- Mpumalanga Town Centre
- New Germany Industrial Redevelopment
- Rivertown Precinct Redevelopment
- Shongweni Mixed Use
- Umlazi Urban Regeneration
- Virginia Airport Greenfields

The Second Generation could yield substantial development returns.

LETTABLE FAR SQM	RESIDENTIAL UNITS NO.	INVESTMENT VALUE R BN	R BN PUBLIC INVESTMENT	R BN PRIVATE INVESTMENT	RATES INCOME P.A. R BN	PERMANENT JOBS NO.
4,241,626	48,000	49.03	12.36	36.67	0.37	60,475

ADJUSTMENTS TO OTHER SPATIAL TARGETING INSTRUMENTS

Priority Housing Development Area (PHDA)

Cornubia is a designated PHDA. Confirmation will be obtained internally if there are other PHDAs. Because Cornubia is wholly contained within the Phase 1 Integration one and is also a High-Intensity Zone within the Integration Zone, no adjustment to the spatial definition of PHDA is presently suggested.

Catalytic Housing Projects in the Second generation will be proposed as PHDA's.

Social Housing Restructuring Zone (SHRZ)

EThekwini has numerous SHRZs. They were designated in two Phases several years apart. All fall within the Dense Urban IZ, except Chatsworth, which is in the Suburban IZ. A further SHRZ will be proposed to amalgamate the existing SHRZ's and to extend it.

Urban Development Zone (UDZ)

The greater part of the Durban CBD is a UDZ. Because the Durban CBD is wholly contained within the Phase 1 Integration one and is also a High-Intensity Zone within the Integration Zone, no adjustment to the spatial definition of the UDZ is presently suggested.

Special Economic Zone (SEZ)

EThekwini does not presently have an SEZ, although the Aerotropolis has been identified locally and nationally as a candidate. If it were to be designated as an SEZ, it would fall wholly within the High-Intensity Zone.

Industrial Development Zone (IDZ)

EThekwini does not have an IDZ. It appears unlikely that government will support new IDZ's, and instead is likely to consider converting existing IDZ's to SEZ's. Consequently, no IDZ is proposed for eThekwini.

Adjustments to SDF and Land Use Management System (LUMS)

One of the principles for the definition of the Dense IZ is that its extents should be based on intensifying and prioritising already intense and-or approved economic, mixed, and intense residential land uses as described in the SDF, Sub-metropolitan Spatial Development Plans (SDP's), and LUMS.

This principle has been applied, to the SDF, but SDP's and LUMS have not yet been reviewed for their alignment with the IZ's. The assumption that the IZ's accurately and comprehensively interpret the other planning instruments has not been deeply tested,

Pending exercises are:

- The sideways integration of Sector Plans to each other
- The upward integration of sector Plans into the IDP, SDF, SDP's and BEPP
- Review of LUMS to check and correct its alignment with the Integration Zone.

INSTITUTIONAL ARRANGEMENTS

ICDG Forum - Composition and Reporting

EThekwini has an ICDG Forum co-chaired by two Deputy City Managers (Treasury, and Economic Development & Planning) and attended by senior staff from Planning, Human Settlements, Economic Development, Transport, Water Services, Roads & Stormwater, Treasury, and Corporate Strategy. The Forum is served by a part-time Secretariat comprising two senior staff, and supported by a resource person availed by National Treasury. The City Manager is periodically briefed on the progress of the Forum.

The Forum inputs and reviews the work of the Secretariat on the identification of the UNS and IZ's, the itemising of the ICDG budget, and presentations to NT.

ICDG Secretariat

The Secretariat needs additional resources. There are two temporary contract appointments, but permanent staff and a panel of consultants are needed (alternatively easy access to the CSP panel)

Teams for Catalytic Projects

An issue has been identified around how to best drive the development within the Dense Urban IZ, but particularly the mechanisms for Catalytic Projects. It is suggested that each catalytic Project has its own dedicated team, and that the best suited form of the team chosen for each project based on its scope and stakeholders.

There are known precedents that need to be unpacked and analysed:

- The project matrix model, which features the establishment of a Project Steering Committee
- The CMDA model, an agency of different spheres of government
- The ABM model, primarily a planning and referral agency of municipal line departments (and consequently not in control of significant capital budgets)
- Strategic Projects, a municipal entity set up to coordinate 2010 projects
- The International Convention centre, a company wholly-owned by the municipality, for the specific purpose of developing and operating a municipal asset
- The Durban Investment Promotion Agency, a municipal agency for the specific purpose as described by its name.
- The Effingham Development Company, a joint venture of the municipality and private sector, for the purpose of developing Riverhorse Industrial and Bridge City
- An international case study with which the municipality is familiar is the IPOC model from Curitiba.

Interim arrangements have been made to focus staff resources on the Catalytic Projects. For each, a team of two or more staff have been assigned, though several members serve more than one Project.

Request for TA

The municipality requests Technical Assistance to assess the precedents listed above and others, and to formulate an institutional response for the managing the development of the Catalytic projects and Dense Urban IZ.

PART D - Outcomes and Outputs

High Level / City-Wide Development Objectives and Desired Outcomes

EThekwini is formulating its performance indicators in response to the “Guideline for Framing Performance Indicators for the Metros in South Africa”. NT has assigned a coordinator, with whom there has been interaction to develop KPI’s. A number of rounds of edits and discussion have occurred. For the municipal-wide KPI’s, the populating of Annexure G has been slow since many of the KPI’s have never been measured before and therefore new systems need to be put in place. Where KPI’s are similar, the service unit representatives have provided baselines and targets.

Sector Development Outcomes and Outputs as per Sector Plans

The municipality has Eight Plans, each with performance Indicators and budget. Sector Plans are unpacked into the Eight Plans. Plan 3 – Quality Living Environment, receives about 90% of the capital budget, and its indicators and targets are shown below.

ITEM	MEASURE	UNIT
3.1. Integrated housing & interim services to informal settlements		
The number of consumer units receiving fully subsidised housing	7,200	No.
3.2. Rental and Gap housing strategy		
New family units in hostels	100	No.
Sale of Council rental stock	600	No.
Upgrade & refurbishment of units in R293, ex-own affairs, & Lamontville	2,900	No.
3.3. Address Infrastructure backlogs		
An updated proxy indigent register	1	%
Built Environment Performance Plan	100	%
Additional consumers with access to a free basic level of Potable Water	1,000	No.
Additional consumers with access to a free basic level of Sanitation	16,200	No.
Additional consumers with new prepaid Electricity Connections	12,000	No.
Additional consumers with new conventional Electricity Connections	1,000	No.
Additional consumers collecting free basic Electricity (65kWh/month).	85,000	No.
Additional consumers with a once/week, kerb-side Refuse removal service	170	No.
Municipal landfills in compliance with the Environmental Conservation Act	100	%
Properties below the eThekwini level of service with Stormwater solutions	440	No.
Sidewalks constructed	9	Km
Unsurpassed Road converted to surfaced	10	Km
Public Transport Ranks constructed	2	No.
Streams maintained by Zibambebe contractors	150	Km
Higher order routes covered by an all inclusive, integrated contract	400	Km
Roads maintained by Zibambebe contractors	2,400	Km
3.4. Infrastructure asset management		
Integrated Asset Management Plan Level 1	100	%
Integrated Infrastructure Asset Management Plan Level 2 - All Sectors	50	%
Demand management -The % of non-revenue water loss.	35	%
3.5. Integrated Human Settlement Plan (Sustainable Community Facilities)		

ITEM	MEASURE	UNIT
Implement Access Modelling - Social facility pre-implementation plan Phase 3	100	%
3.6. Implement an effective public transport plan for the Municipality		
Detailed Design of Phase of the (IRPTN) Project.	100	%
Passengers using accessible scheduled public transport services	80,000	No.
Passengers using scheduled public transport services	26,000,000	No.
Develop an Integrated Freight and Logistics Strategic Framework and Plan	50	%

Outcomes and Impact for Each integration Zone

The Performance Indicators and the system by which to measure and report on them are being developed in conjunction with NT.

PART E - Institutional and Financial Arrangements

Institutional Arrangements for Integrated Planning

See Section C.

INSTITUTIONAL ARRANGEMENTS FOR CAPITAL PROGRAM MANAGEMENT

EThekwini has a capital monitoring entity (Capmon) in the office of the City Manager which monitors the capital spend of the municipality, and which also monitors a key precursor to spend, namely the procurement process. Capmon holds weekly budget meetings with multiple service units, to coordinate spend, procurement, and related processes.

The City Manager's office is also monitoring the "Top 150" capital projects. These projects have been selected because of their budget quantum and-or because of their urgency. The Top 150 follows a similar process as Capmon. In parallel to Capmon and Top 150, the municipality is preparing itself to implement IDMS, which is concerned not only with spend and procurement, but also with the remainder of the project cycle and with comprehensive program management.

Intended for the forthcoming twelvemonth is the formulation of a single corporate spatial plan linked to the budget. The ICDG process is the fulcrum for this. The single corporate spatial plan will demand a synthesis of and a spatialisation of sector plans, and refinement and simplification of the SDF and SDPs. At present, service units determine their own budgets with loose reference to the IDP and other corporate strategy instruments. An intention of the single spatial plan is to ensure the conscious and corporate selection and prioritisation of programs.

Supply Chain Management and Procurement Plan

Like many other municipalities, eThekwini uses a three-committee system for making decisions on the award of expenditure over R 200,000:

- Bid Specification
- Bid Evaluation
- Bid Adjudication

Each committee is independent of the other.

The SCM process shifted over to Treasury during 2012, and one of the first actions after the shift was the process to compile a single procurement schedule. Service units were requested to submit procurement planning information for the remainder of the 2012-13 financial year as well as the procurement plans for the 2013-14 financial year. This information was consolidated into a single plan.

In order to assist with the process of recording procurement plan information, as well as tracking the procurement through the bid committee process, an IT system was configured using the JD Edwards software. The system is ready for use and can be used to assist with the continuing procurement scheduling and tracking of procurement status.

In the interim (prior to system readiness), in order to monitor the procurement for the top 150 capital budget line items, a spreadsheet system was used in order to record and monitor procurement information. This information was reviewed at frequent top 150 Capital project meetings chaired by the City Manager.

PARTNERSHIPS

Community Services

Because the function for community services falls across several government units, there is an opportunity for partnership between the municipality and provincial departments in Health, Education, Emergency Services, and Social Grants. The DPSA's "Geographic Accessibility Study of Social Facility and Government Service Points for the Metropolitan Cities of Johannesburg and eThekweni" points to the need for greater partnerships and coordination between other government departments (e.g. Labour, Social Development) to establish and maintain a presence at Thusong Centres.

Education

There is an existing Memorandum of Agreement with the Department of Education whereby the municipality acts as Implementing Agent on infrastructure at schools, and on the management of schools sportsfields as community facilities. The implementation agency and the management arrangement on fields are not general throughout the city, but rather on a case by case. The MOA's ad hoc secretariat is not currently functioning due to no resources being available, and this needs to be corrected if the content of the MOA is to be acted upon, and if it is to be upscaled spatially and extended functionally into school upgrades through fund-raising from private sector, and to examine the possibility for utilising USDG funding to improve schools. In addition, the MOA's ad hoc secretariat should also be exploring the potentials for utilising halls, parking, and classrooms as community facilities, and the secretariat should also examine how new community facilities, particularly libraries, parks, clinics, and supportive facilities such as crèches and public transport stops could be located on (preferably) or adjacent to school grounds. The secretariat should also be examining how schools could benefit from existing community halls and libraries run by the municipality.

Health

There is also an agency arrangement between the municipality and Health around primary health care for the construction and operation of clinics. This arrangement seems to be functional when it comes to construction, but there appear to be areas of duplication on the operations side, arising primarily from pre-democracy when the former City of Durban ran its own clinics. A stronger partnership seems to be needed to clarify and coordinate roles, and as with education, to explore and arrange how best to cluster clinics with other uses.

Home Affairs

There appears to be functional partnership with Home Affairs on the sharing of office space with the municipality to offer a wider range of public services at one place, via the Thusong Centres.

Human Settlement

For the development of Cornubia South (underway) and Cornubia North (proposed), a functional partnership has been established between municipality, landowner, Housing Development Agency, and DHS. The partnership is served by a full-time secretariat comprising municipal officials.

Multi-use and Economic

Mention is made elsewhere in this document about the joint venture with private sector around Bridge City and Riverhorse Industrial. Riverhorse Industrial is complete, and at Bridge City the JV succeeded to attract significant private and state investment, and aims to continue to do so until the project is complete.

FINANCIAL

The Value of Program and Projects By Sector

The table below analyses the eThekwini MTERF according to the IDP's Eight-Point Plan.

The main Plan is "Plan 3 : Quality Living Environment" making up 90% of the total budget, and is broken down to allow interpretation of its emphasis. The Thematic Program "Plan 2: Prosperous, Diverse Economy & Job Creation" is broken down here because of its likely interest to National Treasury in its capacity as one of the main funding sources of the Program.

The MTERF shown is what is currently approved. EThekwini's budget cycle for the next MTERF ending 2017-18 is in progress, and it is likely to result in revision to the 2015-16 and 2016-17 years. By May 2015 it is anticipated that the next draft MTERF Budget will have been through council and public processes. Council will adopt the Budget by end June 2015.

	2014-15	2015-16	2016-17
Plan 1: Spatial, Natural & Built Environment	24.200	20.600	4.000
Integrate spatial planning system	21.050	17.000	
Long term sustainability of the natural resource base	3.150	3.600	4.000
Plan 2: Prosperous, Diverse Economy & Job Creation	202.155	240.131	384.505
Stimulate Key Sectors	22.000	2.000	30.000
Neighbourhood Development	70.000	75.00	100.000
Town Centre Renewal	55.800	84.000	92.000
Strategic Projects for 2013 and Beyond	42.700	38.500	53.000
Managing the Informal Economy	1.170	4.200	79.000
Support & Grow the Tourism Sector	6.500	16.000	8.000
Support and Grow the Fresh Produce Industry	3.985	20.431	22.505
Plan 3: Quality Living Environment	6,804.149	7,281.861	8,286.657
Housing and Interim Services	1,615.150	1,745.650	1,856.200
Rental and Gap Housing	269.625	258.178	700.398
Infrastructure Backlogs	83.701	131.958	138.650
Public Transport & Freight	1,177.618	1,223.000	1,289.819
Water	1,094.530	1,168.800	1,168.900
Sanitation	827.750	861.050	1,060.100
Solid Waste	101.935	95.963	140.380
Stormwater	38.314	40.302	111.142
Roads	551.142	512.481	540.000
Electricity	715.519	787.747	846.069
Community Services Backlogs	291.787	315.782	392.999
Public Spaces	37.078	40.950	42.000
Plan 4: Socially Equitable Environment	93.581	104.687	97.800
Plan 5: Empowerment of Citizens	12.000	14.650	0.859
Plan 6: Cultural Diversity, Arts and Heritage	66.243	6.818	112.100
Plan 7: Good Governance & Responsive Government	227.140	254.455	230.303
Plan 8: Financially Accountable & Sustainable City	182.750	136.131	332.949
TOTAL	7,611.917	8,059.003	9,449.209

The Value of Programs and Projects per Integration Zone

MTERF SUMMARY	Dense Urban	Suburban	Non-Urban	Total
2014-15	3 969	2 776	867	7 612
2015-16	4 197	2 910	952	8 059
2016-17	5 138	3 288	1 023	9 449
Total	13 304	8 975	2 841	25 120
% OF TOTAL	53%	36%	11%	100%

2014-15	Dense Urban	Suburban	Non-Urban	Total
Plan 1: Spatial Natural & Built Environment	15	7	2	24
Plan 2: Prosperous Economy & Job Creation	137	55	11	202
Plan 3: Quality Living Environment	3 523	2 497	785	6 804
Plan 4: Socially Equitable Environment	42	33	18	94
Plan 5: Empowerment of Citizens	6	5	1	12
Plan 6: Cultural Diversity Arts and Heritage	43	23	0	66
Plan 7: Governance & Responsive Government	113	87	27	227
Plan 8: Financially Accountable & Sustainable City	91	70	22	182
Total	3 969	2 776	867	7 612
% OF TOTAL	53%	36%	11%	100%

2015-16	Dense Urban	Suburban	Non-Urban	Total
Plan 1: Spatial Natural & Built Environment	17	3	1	21
Plan 2: Prosperous Economy & Job Creation	156	71	13	240
Plan 3: Quality Living Environment	3 774	2 637	871	7 282
Plan 4: Socially Equitable Environment	46	42	18	105
Plan 5: Empowerment of Citizens	7	6	2	15
Plan 6: Cultural Diversity Arts and Heritage	4	3	0	7
Plan 7: Governance & Responsive Government	126	98	30	254
Plan 8: Financially Accountable & Sustainable City	67	52	16	136
Total	4 197	2 910	952	8 059
% OF TOTAL	52%	36%	12%	100%

2016-17	Dense Urban	Suburban	Non-Urban	Total
Plan 1: Spatial Natural & Built Environment	2	2	0	4
Plan 2: Prosperous Economy & Job Creation	281	87	16	385
Plan 3: Quality Living Environment	4 427	2 931	929	8 287
Plan 4: Socially Equitable Environment	51	38	8	98
Plan 5: Empowerment of Citizens	0	0	0	1
Plan 6: Cultural Diversity Arts and Heritage	97	13	2	112
Plan 7: Governance & Responsive Government	113	89	28	231
Plan 8: Financially Accountable & Sustainable City	165	128	40	333
Total	5 138	3 288	1 023	9 449
% OF TOTAL	54%	35%	11%	100%

Catalytic Projects' Links to Urban Network Elements

Each of the Catalytic Projects is linked to one or more UN Elements, as per the table.

FIRST GENERATION CATALYTIC PROJECTS

	Bn Value	Primary Township Hub	Primary Connector	Activity Corridor	CBD	Economic Node	Future Node	Secondary Township Hub	Secondary Connector	Dense Urban
Greater Cornubia	37.63									
C3 on MR 577 - Road - Bridge City to Pinetown	4.60									
C3 on MR 577 - Fleet, Depot, & Traffic Management Centre	2.10									
Point Waterfront	15.50									
Warwick Redevelopment	0.50									
Keystone Commercial	4.39									
King Edward Node	0.49									
Bridge City KTC KMA	1.80									

OTHER SPHERES' CATALYTIC PROJECTS

DTP	31.82									
IRPTN Phase 1 Rail - Bridge City to Umlazi-Isipingo	8.0									
SIP 2 Phase 1	250.0									

The Application of Grant Resources by Grant Program & Municipal Project

	ICDG	USDG	HSDG	PTIG	NDPG	INEP
Plan 1: Spatial, Natural & Built Environment						
Integrated spatial planning system						
Long term sustainability of the natural resource base						
Plan 2: Prosperous, Diverse Economy & Job Creation						
Stimulate Key Sectors						
Town Centre Renewal & Neighbourhood Development						
Strategic Projects for 2013 and Beyond						
Managing the Informal Economy						
Support & Grow the Tourism Sector						
Support and Grow the Fresh Produce Industry						
Plan 3: Quality Living Environment						
Housing and Interim Services						
Rental and Gap Housing						
Infrastructure Backlogs						
Public Transport & Freight						
Water						
Sanitation						
Solid Waste						
Stormwater						
Roads						
Electricity						
Community Services Backlogs						
Public Spaces						
Plan 4: Socially Equitable Environment						
Plan 5: Empowerment of Citizens						
Plan 6: Cultural Diversity, Arts and Heritage						
Plan 7: Good Governance & Responsive Government						
Plan 8: Financially Accountable & Sustainable City						