



Pathways to Spatial Transformation



Authored by:

Raeesa Ghoor & Karishma Busgeeth

Acknowledgements:

Keneilwe Pholo & Johan Minnie



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ABBREVIATIONS

AD	Access Distance	LDI	Land Developable Index
BEE	Black Economic Empowerment	KMRU	Knowledge Management and Research Unit
BEPP	Built Environment Performance Plan	M&E	Monitoring and Evaluation
BETA	Beneficiary Experience Tracking Application	MSP	Master Spatial Plan for Human Settlements
BNG	Breaking New Ground	MTSF	Medium Term Strategic Framework
CoGTA	Cooperative Governance and Traditional Affairs	NDHS	National Department of Human Settlements
CP	Catalytic Projects	NDP	National Development Plan
CRU	Community Residential Unit	NHNR	National Housing Needs Register
DALRRD	Department of Agriculture, Land Reform and Rural Development	NMT	Non Motorized Transport
DU	Dwelling Units	NPDG	Neighbourhood Planning and Design Guide (Current Red Book)
ECD	Early Childhood Development	NSDF	The National Spatial Development Framework
EI	Ecological Infrastructure	NSTETR	National Spatial Transformation and Economic Transition Regions
EIA	Environmental Impact Assessment	OM	Open Market
EPHP	Enhanced Peoples Housing Process	PDA s	Priority Development Areas/previously known as PSHDAs
EPWP	Expanded Public Works Programme	PGDS	Provincial Growth and Development Strategy
ERI	Environmental Risk Index	PHDAs	Priority Housing Development Areas
FLISP	Finance Linked Individual Subsidy (now known as First Home Finance)	PHSHDAs	Priority Human Settlement Housing Development Areas
GHI	Geotechnical Hazard Index	SA	Student Accommodation
GEHS	Government Employees Housing Scheme	SACN	South African Cities Network
GHSPD	Guidelines for Human Settlement Planning and Design (Previous Red Book)	SAPS	South African Police Service
GIS	Geographic Information Systems	SH	Social Housing
HA	Hectare	SMMEs	Small, Medium and Micro Enterprises
HDA	Housing Development Agency	SPLUMA	Spatial Planning and Land Use Management Act
HH	Households	SIFHS	Spatial Investment Framework for Human Settlements
ICT	Information and Communications Technology	STPT	Spatial Transformation Planning Tool
IRDP	Integrated Residential Development Programme	STST	Spatial Transformation Scoring Tool
IUDF	Integrated Urban Development Framework	UMP	Urban Management Plan
LC	Land Capability	WD	Walking Distance

INTRODUCTION

This publication on spatial transformation outlines the approaches taken to analyze, score and monitor spatial transformation at the Housing Development Agency (HDA) at different scales (project and area) and in different programmatic initiatives (IRDP, catalytic & PDAs). These approaches have an indicator focus. This focus assists the HDA to quantify spatial transformation outcomes and has assisted in developing pathways to achieve spatial transformation.

Spatial transformation is an essential concept in the South African housing sector and has a specific meaning in the South African context (HDA, 2017a). Spatial transformation is defined as “far-reaching urban change or urban restructuring” (Maritz, Van Huyssteen, Le Roux, Pieterse, Ndaba, Mans and Ngidi, 2016: 4). In the South African context, spatial transformation generally considers efforts to address the apartheid spatial structure and policy frameworks post-1994 emphasise transforming settlements and cities (Maritz et al., 2016). In the HDA’s publication on the ‘Assessment of the Integrated Residential Programme Development (IRDP) and its impact on Spatial Transformation’, transformation is defined as:

“a spatially defined, socially embedded process; [...] an interrelated series of materially driven practices, whereby the form, substance and overall dimensions of urban space are purposefully changed to reflect the principles of a more equitable social order’ (Williams, 2000: 169 in SPLUMA, 2015). Spatial transformation is a process that is used to address the spatial legacy of apartheid hence it is imperative to look to the past, present and future when transforming the built environment.” (HDA, 2017a: 10)

South African Cities Network (SACN) define spatial transformation as “the exercise of changing the form and function of space in a manner that directly benefits economic development” and highlights three focus areas for spatial transformation namely “urban patterns, dynamics and logistics” (SACN, 2015a: 10). Within transforming urban patterns there is a need to prevent urban sprawl and low densities as well as address historical spatial segregation with regard to class structure, land uses and unsustainable spatial trends (ibid). Within transforming urban dynamics, SACN recognises the need to address “ageing, resource-intensive and fragmented infrastructure networks as well as inefficient institutions” and address spaces that are anti-informal due to high regulation (ibid 10). Lastly, within transforming logistics is the need to “promote infrastructure systems that are central to urban flows of resources, people, and goods” (ibid 10-11).

Another publication by SACN (2015b) explains the objective of spatial transformation. It states that the transformation objective should realise “the need for inclusivity, mobility and access, economic development that drives local and national growth prospects and transforms space in a manner that is socially and environmentally sustainable” (ibid 4). Spatial transformation in South Africa is about significant change in the urban environment that emphasizes the need to change historical spatial patterns for economic development and includes a wide range of criteria for sustainable settlements.

SPATIAL TRANSFORMATION IN POLICY FRAMEWORKS & LEGISLATION

The National Spatial Development Framework (NSDF) relates a similar definition of spatial transformation as:

“[t]he carefully and collaboratively planned and well-managed process of (1) locating infrastructure, (2) providing social services, and (3) allowing, placing and incentivising economic activities in settlements in such a way that the segregated spatial patterns inherited from colonial and Apartheid times are broken down, and the inefficiencies, injustices and inequalities in access to economic and other opportunities resulting from these past patterns are corrected” (DALRRD, 2023: 19-20).

The NSDF identifies spatial transformation within one of the five spatial outcomes for the country (ibid). In the National Spatial Outcome 2, “National-scale corridors and regions of opportunity enable sustainable and transformative urbanisation, urban consolidation, mutually beneficial urban and rural linkages, and ecological management”, the NSDF highlights the need to accommodate settlement growth and urbanisation in urban regions and nodes with a focus on development corridors and ‘National Spatial Transformation and Economic Transition Regions’ (NSTETR) (ibid 102).

Several other frameworks and legislation contextualise spatial transformation in South Africa. In the Integrated Urban Development Framework (IUDF), the outcome envisioned is spatial transformation, which is defined as “a sustainable growth model of compact, connected and coordinated cities and towns” (COGTA, 2016: 7). The IUDF identifies four strategic goals: ‘Spatial integration’, ‘Inclusion and access’, ‘Growth’, and ‘Governance’ (ibid 8). The IUDF is informed by the spatial transformation outcome and the conception of urban South Africa set out in the NDP (ibid). Chapter Eight in the National Development Plan (NDP) discusses changing the space economy and human settlements (Harrison and Todes, 2013). It gives “strong emphasis to the importance of spatial transformation in addressing concerns with poverty and inequality” (ibid 1). It argues that legacies of spatial segregation still pervade at different scales, and the locations of employment and homes are important (ibid).

Spatial Transformation relates to the Spatial Planning and Land Use Management Act (SPLUMA) as development principles include that of spatial sustainability, efficiency, spatial resilience, and spatial justice (South Africa, Spatial Planning and Land Use Management Act, 2013). Spatial justice principles in SPLUMA highlight the need to address past spatial imbalances, include previously excluded people through different mechanisms, and improve access to land by previously disadvantaged (ibid). Spatial sustainability principles speak to locating development in sustainable locations and creating viable communities; and efficiency principles include optimally utilizing infrastructure and resources (ibid). These principles align with the outcomes of creating spatially transformed settlements.



WHY IS IT NECESSARY TO MONITOR SPATIAL TRANSFORMATION?

In the HDA (2017a: 31) publication on spatial transformation in IRDP projects, an important finding was a discrepancy between "urban planning and housing delivery logic". Spatial transformation centres around an urban planning logic and can contradict the housing delivery logic (ibid). One suggestion of the 2017 Spatial Transformation study was to "Enhance and Implement the Spatial Transformation Scoring Tool to measure the impact on Spatial Transformation" (ibid 33). Spatial Transformation scoring, monitoring, planning and analysis allow the HDA to convert human settlement targets into achievements and alert the HDA regarding red flags and when and where to intervene. It provides for prioritisation, i.e., stop working on the wrong projects and reclassify, and is a source of comparative analyses among projects.

Other frameworks have come up with similar suggestions, such as the NSDF. Within the NSDF's 'National Action

and Key Role-Player' of Sub-frame Two, 'National System of Nodes and Corridors' it was highlighted that there is a need for "a collaboratively prepared and mutually agreed to 'intergovernmental spatial transformation accountability mode' by which all three spheres of government, sector departments and non-State actors will individually and collectively hold each other accountable for their planning, funding and investment decisions and delivery programmes about (1) investment in national priority spaces, (2) the pursuit of national spatial transformation and economic transition objectives, and (3) the care and respect for, and well-considered utilisation of our national natural resource base" (DALRRD, 2023: 124). Within the national action for this frame, it is recognised that there is a need to support the Department of Human Settlements Priority Human Settlement Housing Development Areas (PHSHDAs), now termed Priority Development Areas (PDAs) (ibid).

SPATIAL TRANSFORMATION AT THE HDA: EVOLUTION OF SCALE AND TOOLS

Over the last few years, the M&E, Knowledge Management and Research Unit (KMRU) has developed various spatial transformation instruments to monitor, plan and understand spatial transformation. The HDA published an action research report analysing spatial transformation in one of the government's housing programmes, the Integrated Residential Development Programme (IRDP), analysing four case studies (HDA, 2017a). One of the outputs of the action research report was a list of indicators for measuring spatial transformation. The indicators were subsequently extensively consulted with numerous public, private, and academic sector stakeholders. From stakeholders' engagements, in 2018/19, the unit designed and developed the Spatial Transformation Planning Tool (STPT) to assess housing projects classified as catalytic. Catalytic projects are intended to be high-impact, sustainable and integrated mega-human settlement projects (HDA, 2017b). More recently, in 2019/2020, to give effect to the HDA regulations (HDA, 2014b) on PDAs (Priority Development Areas), the unit developed a monitoring and evaluation approach for PDAs [previously known as Priority Housing Development Areas (PHDAs) or Priority Human Settlement Housing Development Areas (PHSHDAs)].

The scale of IRDP/Catalytic and that of PDAs is different. Hence, the indicators are various. Wong (2006) writes on spatial scales in relation to 'Indicators for Urban and Regional Planning', and explains that spatial scales and indicators have challenges, including inter-area variance decreases with larger boundaries, internal variability increases with larger scales, and reliance on one geographic scale to track deprivation has potential challenges when this is done over time. An appropriate spatial scale is needed to measure a particular deprivation (ibid). SACN (2016a) notes that the term spatial transformation has been used loosely with changeable and abstract meanings; it is envisioned that through an indicator focus and an exploration of different scales, spatial transformation can be measured and defined more comprehensively. Aligning to the same reasoning the HDA has drawn out indicators for IRDP/CP as a project-based scale and PDAs as an area-based scale (see Annexure A). These indicators were developed by examining the different scales' datasets, undertaking consultations, and determining envisioned outcomes.

The IRDP study developed the Spatial Transformation Scoring Tool (STST) as an **analysis tool** to understand the spatial transformation impact in selected IRDP projects, namely Lufhereng, Fleurhof, South Hills and Malibongwe Ridge (HDA, 2017a). For catalytic projects, the STST after

numerous consultations, was adapted and renamed the Spatial Transformation Planning Tool (STPT) to monitor projects. The STPT is a **planning and monitoring tool** to monitor CP. A **monitoring and evaluation (M&E) approach** was developed for PDAs to monitor their change and progress. The strategy is heavily based on spatial analyses and visualised as infographics to depict change in the PDAs.

1.1. SPATIAL TRANSFORMATION IN IRDP PROJECTS

The IRDP was "initiated to facilitate and guide housing development that occurs in well-located areas that provide convenient access to urban amenities, including places of employment" (HDA, 2017a: 13). IRDP is a tool "for the planning and development of human settlements that include all the necessary land uses and housing types and price categories to become a truly integrated community" (ibid 13). The spatial transformation criteria scored change in the urban environment and used criteria around the land, integration, economic development and the like to measure transformation (HDA, 2017a). Four projects were assessed on these pillars; see previous publication (HDA, 2017a). The Spatial Transformation Planning Tool for CP was developed from this study.

1.2. STPT for CP

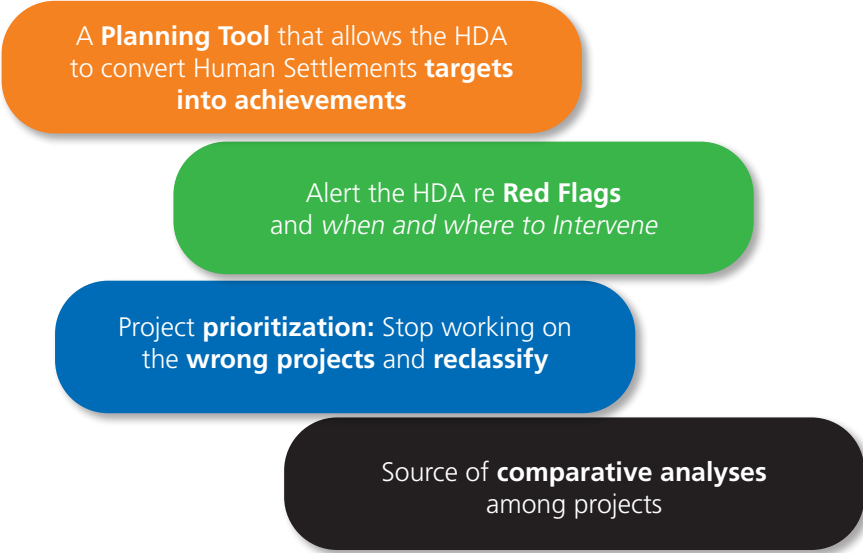
The STPT, developed by the M&E and KMRU, was used to assess Catalytic Projects (CP). The Catalytic Projects National Business Plan (HDA, 2016a: 13) quotes the Master Spatial Plan for Human Settlements (MSP), also known as the Spatial Investment Framework for Human Settlements (SIFHS), in the definition of a catalytic project:

"National Priority human settlements catalytic projects can range from mega scale inclusionary neighbourhoods to seemingly small but high impact interventions. The underlying principle of all of these is that they are all spatially, economically and socially targeted interventions whose main objective is to intervene to deliberately restructure settlement patterns and impact on the environment".

The detailed criteria for selecting catalytic projects is included in Annexure B while the overarching criteria for prioritizing projects is included in Annexure E. From the assessments, it is noted that the scale of intervention in

terms of envisioned housing yield does vary across the different catalytic projects, and to assess the impact to spatial transformation, it is necessary to undertake a project-by-project assessment. The HDA has completed 23 project evaluations for CP (see complete list of evaluations on page 41). Based on the availability and accessibility of requisite data sets the HDA focused on 6 of the 10 pillars to undertake evaluations as well as identifying risks and mitigations (see page 42-43). From the evaluations, an illustrating example of scale impact is the comparison of 'Land Value Add' (which measures the existing amenities and services in terms of distance via Red Book provisions) and 'Integration' (which counts the existing and planned amenities and services with planned and current population increase via Red Book provisions). Where there is a high envisioned yield in the area for the project, 'integration' will have a lower score in terms of access to amenities and services, highlighting a red flag that where large-scale projects are implemented, there is a need to understand the impact in terms of population in the area.

The STPT has since evolved to encompass approximately 160 indicators within ten pillars (see Annexure A). The spatial transformation indicators aim to monitor change in the urban environment via the ten pillars. It was a tool that evolved and was adapted with the unit's interaction with project managers, town planners and other professionals in the sector. In essence, the STPT imbibes the following functions:



Ten Pillars of Spatial Transformation



±160 Indicators for Monitoring Catalytic Projects

1.3. Monitoring and Evaluation Approach for Measuring Spatial Transformation in PDAs

Priority Development Areas (PDAs) [previously known as Priority Housing Development Areas (PHDAs) or Priority Human Settlement Housing Development Areas (PHSHDAs)] are intended to “support municipalities to prioritise housing development applications in terms of SPLUMA thus directing housing finance to areas that promote inclusive residential markets instead of further segregating people by race, age and gender” (NDHS, 2019a: 12). PDAs are outlined in the Housing Development Agency Act of 2008, under Section 7 (3) of the functions of the agency is to:

- “(3) In performing its functions the Agency may –
- (a) declare priority housing development areas for residential and community purposes in accordance with integrated development plans and provincial spatial development frameworks;
 - (b) develop and submit a development plan for such priority development areas as contemplated in subsection 1(a); and
 - (c) implement such measures as may be prescribed to fast-track housing development in the declared priority housing development areas.”

(South Africa, Housing Development Agency Act, No 23 of 2008: 13)

In addition, in the PDA policy compiled by the HDA in 2014, it states the purpose of the PDA is “to accelerate delivery of sustainable human settlements for a broad range of income groups within an integrated mixed-use development as

prioritised in the municipal integrated development plan” (HDA, 2014a: 8). This illustrates the policy intentions to accelerate, integrate and prioritise housing delivery in line with integrated development plans (IDP).

McKenna (2020: 13), in her assessment of PDAs, notes that the policy intended to “promote intergovernmental coordination and to align policies and budgets around the concerted and coordinated development of a particular geographic area”. The assessment highlights a mixed evaluation of PDAs where some “reflects a stronger alignment between the project list and planning frameworks and objectives, while in other instances the selection of PHSHDA’s implies a divergence of priorities” (ibid 16). McKenna also notes that even where there is synergy between housing projects and SDFs there is a lack of alignment with regard to the finer aspects of urban development principles such as “the design of the development, the interconnections with existing settlements, the overall functioning of the development” (ibid 18). As highlighted earlier, the M&E Approach for spatial transformation intends to bring greater attention to and measure these aspects to resolve discrepancies between housing delivery and urban planning logic.

The M&E Approach intends to evaluate spatial transformation and consolidation that assess the impact of spatial justice and spatial efficiency; access to accommodation, social, connective and economic infrastructure; and the delivery of various quality housing typologies as outlined in the framework (NDHS, 2019a). From the policy (HDA, 2014a), the principles of PDAs are outlined:

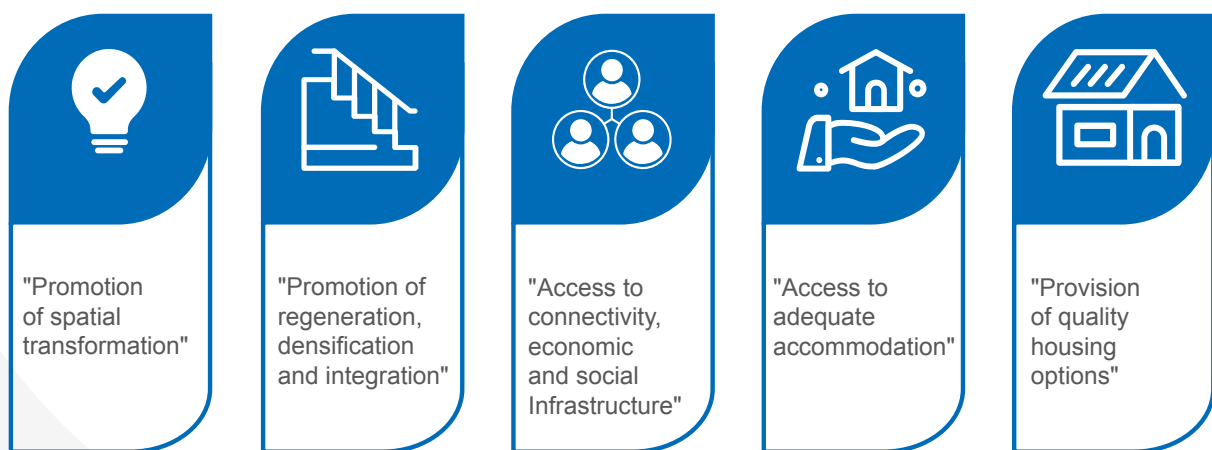


Figure 1: Principles of PDAs (HDA, 2014a: 13-14).

The outcomes that PDAs intend for spatial transformation and consolidation are:

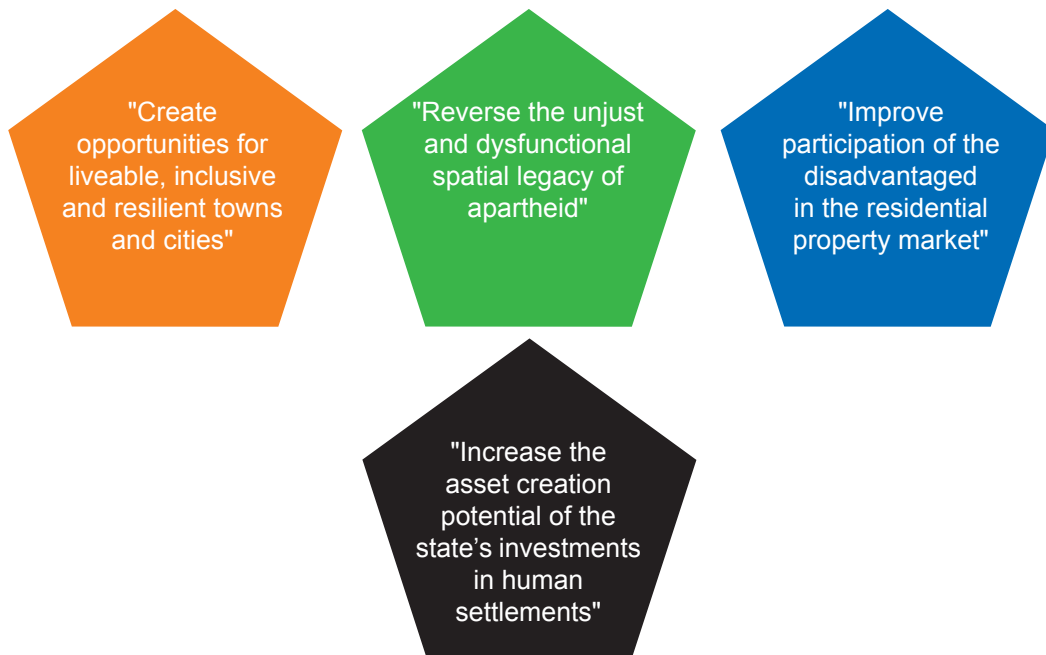


Figure 2: Outcomes of PDAs (NDHS & HDA, 2020: 9).

Thirteen pillars and corresponding indicators for spatial transformation have been derived from: the principles and outcomes of PDAs; research; knowledge of design principles; datasets; previous work and lessons on spatial transformation; and consultations (see Annexure A). The

thirteen pillars have been linked to the outcomes. The Monitoring Approach for PDAs is included in Annexure C.

The diagram below explains the spatial transformation model for PDAs:

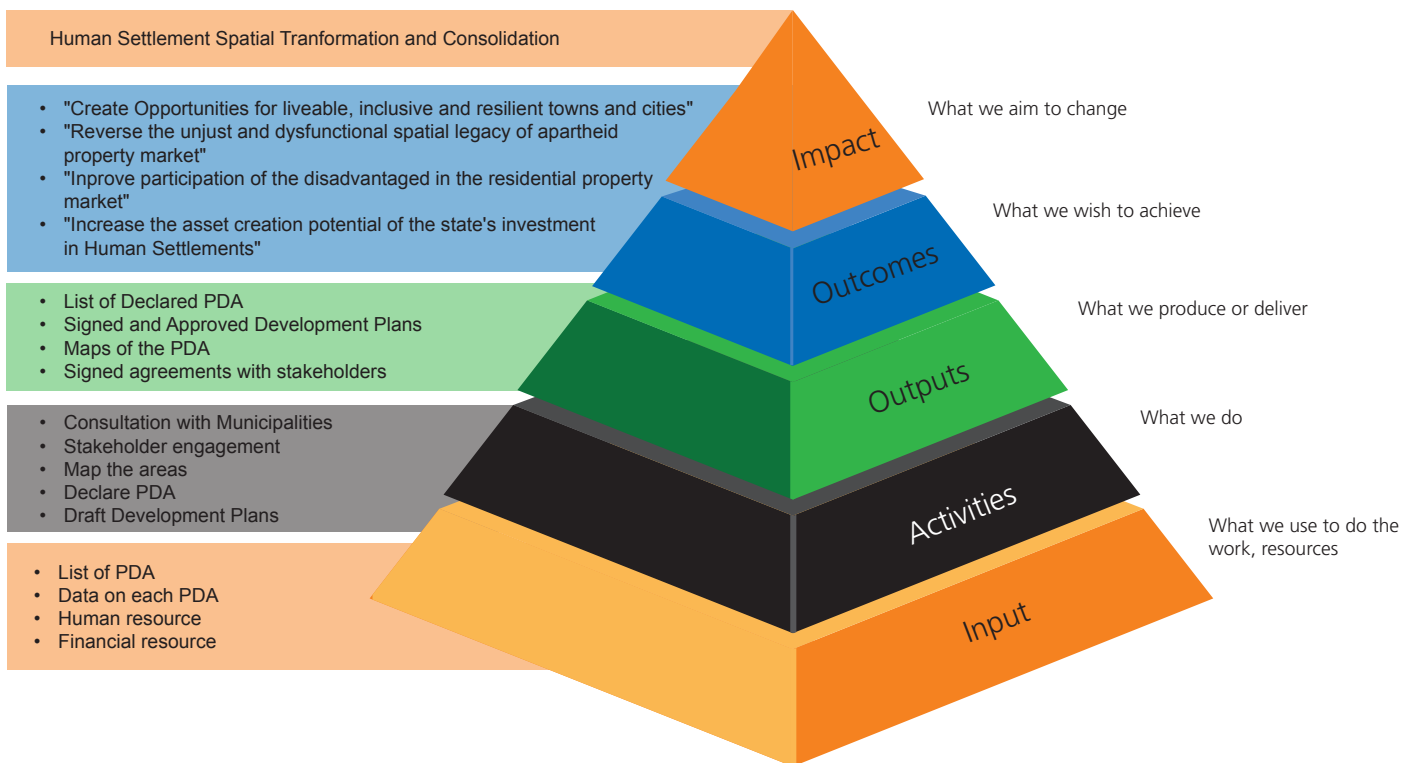


Figure 3: Spatial Transformation and Consolidation Model for PDAs (HDA, 2014a; NDHS & HDA, 2020: 9).

The 13 pillars for monitoring PDA's are illustrated below:

Thirteen Pillars of Spatial Transformation



Thirteen Pillars of Spatial Transformation in PDAs.

The HDA based on the 13 pillars has undertaken analysis for 7 PDAs (see page 41 for complete list) and a baseline analysis of 'Port St Johns PDA' is on page 44. Baseline analysis is key in tracking change and monitoring patterns over time.

BENCHMARKING INDICATORS

Maritz, Van Huyssteen, Le Roux, Pieterse, Ndaba, Mans and Ngidi (2016) explore spatial transformation in relation to sub-city indicators. They explain indicators in the South African spatial transformation context. Indicators for spatial transformation provide a means to measure spatial change; they “add value in providing some indication of embedded spatial patterns and the areas undergoing the biggest changes within cities..., and also in addressing questions related to the spatial relationships between such changes” (ibid 9). However, “[i]t should be acknowledged that spatial change can be depicted on numerous levels and that no one indicator can provide a clear indication of spatial transformation, experiences of people within cities, etc.” (ibid 9).

According to SACN, the built environment has three defining elements: “land, settlements (i.e. physical buildings, infrastructure and services) and mobility systems (transport)”, and there is a need to understand as well as transform these components for the improvement of the functioning of the city (SACN, 2016b: 62). According to the SACN (2016a), spatial transformation needs to be monitored with an outcome focus. SACN (2016a:76) highlights that “instead of measuring outputs (e.g. the number of houses, title deeds, land parcels or buses delivered), indicators need

to be developed to measure the spatial outcomes and changes to the urban experience”. This publication has developed indicators to monitor spatial outcomes and with regard to changes in the urban experience, the HDA has embarked on a digital capability to track beneficiary experience in the Beneficiary Experience Tracking Application (BETA). This measures quality of place, life and growth for recipients of human settlement subsidies (see forthcoming HDA publication on BETA).

Within the Spatial Transformation Planning Tool, there was a need to set parameters classifying the indicators in terms of green (good progress), amber (medium progress) or red (needs some work). Benchmarks have been set for the following pillars: Transversal Alignment, Land Value-Add, Integration and the Human Settlements Transformation Scorecard. The benchmarks were determined using the various standards available, including Red Book provisions, supply-chain policy and infrastructure standards. In 2019, the National Department of Human Settlements released the NPDG with revised standards, and subsequently, the unit updated the benchmarking document to reflect the new standards. See Annexure D, Benchmarks A reflects criteria from the previous red book and Benchmarks B reflects criteria from the current revised NPDG.

TOWARDS A REFINEMENT OF METHODOLOGIES FOR GREATER SPATIAL TARGETING AND ANALYSIS

The Spatial Investment Framework for Human Settlements (SIFHS) recognises the need for spatial targeting in human settlements. It explains that it is “support directed to specific geographical areas, or to expected outcomes supported by fiscal programmes. It occurs at different scales, from national to provincial to regional, local and precinct level” (HDA, 2016c: 7). The criteria for prioritising projects in the SIFHS are included in Annexure E. Geographic Information Systems (GIS) processes and population density analysis provide methodologies to measure spatial transformation with particular regard to understanding access to services/amenities. The methods employed provide an area-based analysis of proximity and service to the population for amenities and services. The unit has been investigating a more targeted approach to analysing spatial transformation. This section explains current and new (currently exploring) methodologies.

For catalytic projects, two methodologies were used to understand the relationship between amenities and services – proximity and population catchment - as defined by the National Department of Housing’s Guidelines for Human Settlement Planning and Design (GHSPD – Previous Redbook) and subsequently the National Department’s NPDG (current Red Book) (CSIR, 2000; NDHS, 2019b). In Catalytic Projects, ‘Land Value Add’ measures the existing amenities and services (AfriGIS datasets) in terms of distance via Red Book provisions from the centroid of the project and ‘Integration’ estimates the current (AfriGIS datasets) and designed (Layout plans and Catalytic Projects Programme reports) amenities and services with planned and current population via Red Book provisions. ‘Land Value Add’ reflected a distance analysis with amenities and services from the centroid of the project. ‘Integration’ was a population analysis using the Enumeration Area with a 1km buffer population size (Stats SA, 2011) and an estimated population increase using planned households with the average household size per province from the Community Survey 2016 (Stats SA, 2016).

A population calculation for PDAs was used to determine sufficient amenities and services. The PDA analysis reflected the current population from the Geoterra Image – SA (GTI) (2020) data. The unit has experimented with adapted methodologies based on City of Johannesburg’s nodal review to measure spatial transformation and aims to investigate these methodologies for greater spatial targeting within PDAs. The COJ (2018) Nodal Review modelling exercise was used to “define the areas of greatest potential in the City for high-intensity urban development forming the evidence-based planning component” (COJ, 2018: 8). The analysis is based on “connectivity and access” on a hexagonal grid which measures 400m by 400m per hexagon (ibid 9). It used “current street networks and how they promote walkability, access to public transit stations, and various amenities. Importantly, it focused on walkability and public transit, rather than car use” (ibid 9). The scoring is based on the following methodology, “[t]he wider the area one can reach on foot from the centre of each cell, the higher the walkability score, and the more conducive that neighbourhood is to walking” (ibid 9).

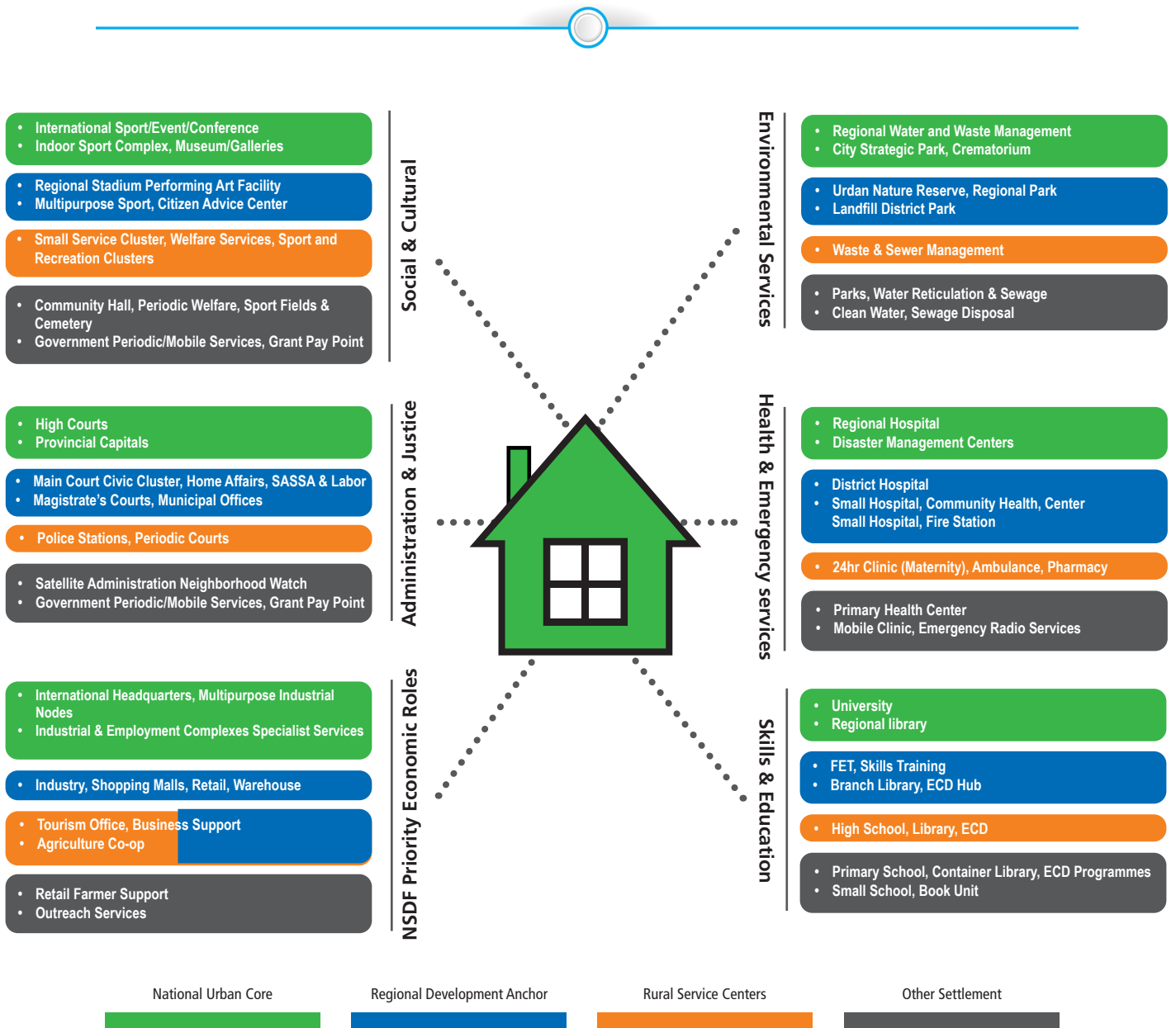
Two methodologies have been applied to the hexagon approach: the first is walkability via the road network, and the second is walkability via the developable land index. The HDA has developed the Land Developable Index (LDI) and “is generated using spatial overlay methods based on data layers of the Geotechnical Hazard Index (slope and dolomite), Environmental Risk Index (rivers, wetlands, estuarine functional zones), Land Capability (existing plantations, afforestation potential, natural forest, existing field irrigation, agriculture potential, mining rights, mine dumps) and Ecological Infrastructure (ecosystem threat status, biodiversity planning, protected areas, habitat quality). These indices have various levels of developability and were therefore assigned different values on a 0-100 scale” (HDA, 2018a). Where the COJ (2018) Nodal Review developed an index for an urban potential model, this analysis looks at a specific amenity/service and accessibility to that amenity based on network analysis and developability assessment. This methodology and usefulness in understanding spatial transformation need further refining and interrogation to assist with spatial targeting.

LESSONS LEARNT AND FUTURE RESEARCH OPPORTUNITIES

There were several lessons learnt working with the different tools to measure spatial transformation. Firstly, for catalytic projects, the type and quality of information received mainly depend on the role of the HDA. If the HDA is an implementing agent, more information is obtained because contractors and service providers will report to the HDA. In contrast, the data is limited if the HDA is a programme manager. In the future, there is a need to cement close relationships with implementing agents of different projects and municipalities to receive updated ground truth information. Secondly, catalytic projects are in various stages of development. It was, therefore, necessary to include the stage of the project and an overview of envisioned housing, housing typology breakdown, the opportunities for the financial year and the stakeholders to understand the dynamics of the individual projects. Thirdly, two methodological approaches were used for catalytic project analysis for amenities and services, referred to in the GHSPD and NPDG – distance and population (CSIR, 2000; NDHS, 2019b). Distance analysis analysed existing amenities and services, and population and expected population increase examined if amenities and services will service anticipated growth. This assists in identifying

gaps in the provision of supporting amenities and noted that there is a need to plan for an increase in population for housing projects.

For benchmarks in catalytic projects and PDAs, the benchmarking criteria must be refined to apply to various contexts and projects. Currently, benchmarking criteria have been created for four pillars. There is an opportunity to extend the benchmarking process for better and complete assessments. Under transversal alignment for catalytic projects and PDAs, it is necessary to define which objective of the various policies it aligns to for greater specificity. The STPT measures transformation on a project level and the M&E approach for PDAs monitors on an area level. There is a need to refine criteria to ensure the measurement of spatial transformation in a city/town, including at a project and an area level. The recently released NSDF has outlined a set of criteria for social services at different scales of urban/rural areas (see image below). This could provide a helpful starting point for this level of assessment. In addition, as mentioned in the previous section, methodologies can be refined for greater spatial targeting.



Social Service Model, Source Adapted from: DALRRD, 2023: 99 (Extract from NSDF and reordered).

For many pillars, information is not necessarily standardised or available for example indicators under beneficiaries in catalytic projects such as race, income, education, and grants. The recording of these details is not standardised across provinces and is a challenge to obtain. Beneficiary management within the human settlements sector needs refinement and standardisation. In addition, only some of the information regarding the criteria in the tools is readily available. There is a need to review documentation, e.g. reports and layout plans, to obtain it. The work is tedious,

laborious and slow. Relationships must be built with numerous committed stakeholders to design, develop and deploy a relevant paradigmatic tool to undertake comprehensive analyses across spheres and sectors.

With regard to PDA's the HDA has recently started a change detection exercise to monitor changes to key indicators over time (from 2020 to 2023). This will assist to understand the impact of state intervention in the Priority Development Areas.



CONCLUSION

Maritz et al. (2016) mention that no single indicator can measure spatial transformation. There are limits to an indicator focus; there is a risk that an indicator focus creates a focus on a numerical or check box interpretation of the urban and may ignore some of the more subtle nuances of urban experience (SACN, 2016a), design and form. However, the various tools designed and used by the HDA have given us tools and scales to start adding definitions and understanding to spatial transformation. There is room for further investigation and expansion in the pillars and indicators explored, and this publication intends to open the scope and tools to measure and monitor spatial transformation in our projects, areas, towns, and cities.

The HDA envisions that the tools will be used by HDA employees, practitioners, government departments and other stakeholders in the urban environment. The HDA welcomes further engagement on methodologies, indicators and benchmarking.

Note: 'Developing a Spatial Transformation Scoring Tool to Monitor South African Catalytic Housing Projects' was first delivered to the 55th ISOCARP Congress in Jakarta, Indonesia, in 2019.

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Geographic Information Systems (GIS) Contributions and References:

The HDA GIS unit contributed to spatial transformation analysis, and the contribution of Hadley Remas, Zimasa Biyana, Nkanyiso Cele, Thabitha Patjane, Joseph Mangwezi and Pragasen Ponnen toward this publication is acknowledged.

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Catalytic Data Engagements and Data Sources

To populate the indicators of the spatial transformation analysis for catalytic project various sources were engaged including Catalytic Project Programme (CPP) submissions and reports, Project Officers and engagements with Project Teams in the various regional offices of the HDA, engagements with Catalytic Project Programme service provider, Project Reports, Company BEE Profiles, HDA Housing Market Dashboard, HDA GIS Calculations, layout plans and other general project information available.

PDA M&E Framework Consultations

Various consultations took place in creating the PDA Framework and we would like to acknowledge the contribution of the HDA PDA unit: Rashnee Atkinson (now NDHS), Mpho Mafinya and Mazwi Tladi; City of Johannesburg and Service Provider for Greater Alexandra PDA: Ayanda Ngcobo (COJ), Theo Pretorius (Plan Associates) and Herman Strydom (Plan Associates); National Department of Human Settlements M&E unit; and the various Provincial Forums led by the National Department of Human Settlements.

Annexure A: Spatial Transformation Matrix

Spatial Transformation Theme	IRDP (original spatial transformation indicators)			Catalytic Projects			PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement
Land	Land	Well located, affordable land based on the housing demand/needs analysis that is suitable for human settlement development and the progressive upgrading of informal settlements	Scale of Achievement 0 -2	Land Value Add (Existing)	Number of approved beneficiaries (child headed HH, senior citizen HH, military veterans included)	Number	Land	Current number of Residential Units in the Area	Number
		The use of State Owned Land for human settlement development and the progressive upgrading of informal settlements	Scale of Achievement 0 -2		Number of non-qualifiers	Number		Land size of the PDA	Number in Hectares
		Land that meets the strategic priorities of the human settlements mandate and that can be used to catalyse private sector investment at a precinct and/or regional scale	Scale of Achievement 0 -2		Number of hectares of developable state owned land available for human settlements developments	Number in Hectares		Informal Settlements in the Area	Number
			Number of hectares of vacant developable private owned land available for human settlements developments		Number in Hectares	Vacant Land Ownership within PDA. (Hectares)		Number in Hectares	
			Number of Early Childhood Development Centers		Number: Analysed through benchmarking [Distance]	Vacant Land in Developable Areas		Number in Hectares	
			Number of Primary Schools		Number: Analysed through benchmarking [Distance]	Are there any land within the PDA that are under claims		Yes/No	
			Number of Secondary Schools		Number: Analysed through benchmarking [Distance]	Please provide details of the current land claims under way?		Open-Ended	
			Number of Tertiary Facilities		Number: Analysed through benchmarking [Distance]	How much land is developable in the PDA? (Hectares)		Number in Hectares	
			Number of Primary Health Care Clinics		Number: Analysed through benchmarking [Distance]	From the land identified what is the stage of development readiness (what phase in the town planning processes is the land in)? [If land is in different phases, please expand and elaborate]		Open-Ended	

Spatial Transformation Theme	IRDP (original spatial transformation indicators)			Catalytic Projects			PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement
Land				Land Value Add (Existing)			Land	What are security measures in place to protect againsts land and/or house invasions? [Where projects are in planning and implementation]	Open-Ended
		Number of Hospitals	Number: Analysed through benchmarking [Distance]					Does the PDA fall within the Urban Development Boundary?	Yes/No
		Number of Libraries	Number: Analysed through benchmarking [Distance]					Number of Residential Structures	Number
		Number of Community Centres/Halls	Number: Analysed through benchmarking [Distance]					Number of Commercial Structures	Number
		Number of Multi-Purpose Centers	Number: Analysed through benchmarking [Distance]					Number of Community Service Structures	Number
		Number of Department of Home Affairs Offices	Number: Analysed through benchmarking [Distance]					Number of Educational Structures	Number
		Number of Department of Labour Offices	Number: Analysed through benchmarking [Distance]					Number of Health Care Facilities Structures	Number
		Number of Department of Social Development Offices	Number: Analysed through benchmarking [Distance]					Number of Industrial Structures	Number
		Number of SASSA Offices	Number: Analysed through benchmarking [Distance]					Number of Institutional Structures	Number
		Number of Social Grant Pay Points	Number: Analysed through benchmarking [Distance]					Number of Mining Structures	Number
		Number of Police Stations	Number: Analysed through benchmarking [Distance]					Number of Recreation and Leisure Structures	Number
		Number of Fire Stations	Number: Analysed through benchmarking [Distance]					Number of Transport Structures	Number
		Number of Homes for the Aged	Number: Analysed through benchmarking [Distance]					Number of Utilities and Infrastructure Structures	Number
		Number of Child and Youth Care Centres	Number: Analysed through benchmarking [Distance]					Unclassified	Number
		Number of Post Offices	Number: Analysed through benchmarking [Distance]						

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs			
	Pillars	Project-level Indicator	Pillars	Project-level Indicator	Pillars	Area-level Indicator		
Land				Number of ICT Hubs	Infrastructure	What are the water and sewer capacities in the area?	Open-Ended	
				Number of shopping complexes		Number	What is the electricity capacity in the area?	Open-Ended
				Number of title deeds issued		Number	What is the condition and capacity of the road infrastructure in the area?	Open-Ended
				Percentage of title deeds issued to women		Percentage Number	What is the refuse removal capacity in the area?	Open-Ended
				Is there existing bulk water and sewer?		Open-Ended	What is the capacity and accessibility of the ICT infrastructure?	Open-Ended
				Is there existing bulk electricity?		Open-Ended		
				Is there existing road infrastructure?	Open-Ended			
				Is there existing ICT infrastructure?	Open-Ended			
				Is there infrastructure upgrading required?	Yes/No			
				Number of households living in informal settlement	Number			
				Number of approved beneficiaries (child headed HH, senior citizen HH, military veterans included)	Number			
				Number of non-qualifiers	Number			
				Number of hectares of developable state owned land available for upgrading of informal settlements	Number in Hectares			
				Number of hectares of vacant developable private owned land available for upgrading of informal settlements	Number in Hectares			
				Number of stands zoned for open market residential use	Number			
			Percentage of stands zoned for open market residential use and owned by private sector	Percentage Number				
			Number of stands zoned for commercial use	Number				

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs					
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement				
Land				Land Value Add (Existing)	Percentage of stands zoned for commercial use and owned by private sector	Percentage Number	Amenities and Services			
					Number of stands zoned for industrial use	Number				
					Percentage of stands zoned for industrial use and owned by private sector	Percentage Number				
					Number of stands zoned for institutional use	Number				
					Percentage of stands zoned for institutional use and owned by private sector	Percentage Number				
Integration	Integration	Access to Transport Systems (public transport and transport networks) that allow residents to move freely between different parts of the City	Scale of Achievement 0 -2	Integration (Planned)	Number of Early Childhood Development Centers	Number: Analysed through benchmarking [Population]	Number of Early Childhood Development Centers	Number: Analysed through benchmarking [Population]		
			Access to Health, Educational and Recreational amenities and services that promote sustainable communities and neighbourhoods		Scale of Achievement 0 -2	Number of Primary Schools	Number: Analysed through benchmarking [Population]	Number of Primary Schools	Number: Analysed through benchmarking [Population]	
			Integrating the disparate parts of the city including marginalised areas that re-dress the existing spatial legacy		Scale of Achievement 0 -2	Number of Secondary Schools	Number: Analysed through benchmarking [Population]	Number of Secondary Schools	Number: Analysed through benchmarking [Population]	
			Integration with existing urban fabric and existing infrastructure		Scale of Achievement 0 -2	Number of Tertiary Facilities	Number: Analysed through benchmarking [Population]	Number of Tertiary Facilities	Number: Analysed through benchmarking [Population]	
							Number of Primary Health Care Clinics	Number: Analysed through benchmarking [Population]	Number of Primary Health Care Clinics	Number: Analysed through benchmarking [Population]
							Number of Hospitals	Number: Analysed through benchmarking [Population]	Number of Hospitals	Number: Analysed through benchmarking [Population]
							Number of Libraries	Number: Analysed through benchmarking [Population]	Number of Libraries	Number: Analysed through benchmarking [Population]

Spatial Transformation Theme	IRDP (original spatial transformation indicators)			Catalytic Projects			PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement
Integration				Integration (Planned)			Amenities and Services		
		Number of Community Centres/Halls	Number: Analysed through benchmarking [Population]		Number of Community Centres/Halls	Number: Analysed through benchmarking [Population]		Number of Community Centres/Halls	Number: Analysed through benchmarking [Population]
		Number of Multi-Purpose Centers	Number: Analysed through benchmarking [Population]		Number of Multi-Purpose Centers	Number: Analysed through benchmarking [Population]		Number of Multi-Purpose Centers	Number: Analysed through benchmarking [Population]
		Number of Department of Home Affairs Offices	Number: Analysed through benchmarking [Population]		Number of Department of Home Affairs Offices	Number: Analysed through benchmarking [Population]		Number of Department of Home Affairs Offices	Number: Analysed through benchmarking [Population]
		Number of Department of Labour Offices	Number: Analysed through benchmarking [Population]		Number of Department of Labour Offices	Number: Analysed through benchmarking [Population]		Number of Department of Labour Offices	Number: Analysed through benchmarking [Population]
		Number of Department of Social Development Offices	Number: Analysed through benchmarking [Population]		Number of Department of Social Development Offices	Number: Analysed through benchmarking [Population]		Number of Department of Social Development Offices	Number: Analysed through benchmarking [Population]
		Number of SASSA Offices	Number: Analysed through benchmarking [Population]		Number of SASSA Offices	Number: Analysed through benchmarking [Population]		Number of SASSA Offices	Number: Analysed through benchmarking [Population]
		Number of Social Grant Pay Points	Number: Analysed through benchmarking [Population]		Number of Social Grant Pay Points	Number: Analysed through benchmarking [Population]		Number of Social Grant Pay Points	Number: Analysed through benchmarking [Population]
		Number of Police Stations	Number: Analysed through benchmarking [Population]		Number of Police Stations	Number: Analysed through benchmarking [Population]		Number of Police Stations	Number: Analysed through benchmarking [Population]
		Number of Fire Stations	Number: Analysed through benchmarking [Population]		Number of Fire Stations	Number: Analysed through benchmarking [Population]		Number of Fire Stations	Number: Analysed through benchmarking [Population]
		Number of Homes for the Aged	Number: Analysed through benchmarking [Population]		Number of Homes for the Aged	Number: Analysed through benchmarking [Population]		Number of Homes for the Aged	Number: Analysed through benchmarking [Population]
		Number of Child and Youth Care Centres	Number: Analysed through benchmarking [Population]		Number of Child and Youth Care Centres	Number: Analysed through benchmarking [Population]		Number of Child and Youth Care Centres	Number: Analysed through benchmarking [Population]

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs		
	Pillars	Project-level Indicator	Pillars	Project-level Indicator	Pillars	Area-level Indicator	
Integration				Number of Post Offices	Number of Post Offices	Number of Post Offices	Number: Analysed through benchmarking [Population]
				Number of ICT Hubs	Number of ICT Hubs	Number of ICT Hubs	Number: Analysed through benchmarking [Population]
				Number of shopping complexes:		What are the different modes of public transport in the area?	Open-Ended
				Number of transport nodes within the precinct		How many transport stops are in the area?	Number
				Number of public modes of transport available		How many suburbs in the PDA are serviced by transport stops?	Percentage Number
				Number of units catering for universal access (people with disability)		Is there adequate NMT infrastructure?	Open-Ended
				Length of roads with bicycle lanes			
				Length of roads with walkways			
				Are there rail networks linking various parts of the precinct?			
				Is there planned bulk water and sewer?			
				Is there planned bulk electricity?			
				Is there planned road infrastructure?			
				Is there planned ICT infrastructure?			
				Is there infrastructure upgrading required?			
				Total beneficiaries:			
				No of non-qualifiers:			
				Beneficiaries (race)			
				Beneficiaries (income)			
				Beneficiaries (education)			
				Beneficiaries (grants)			

Spatial Transformation Theme	IRDP (original spatial transformation indicators)			Catalytic Projects			PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement
Socio-Economics	"Economic Development"	A dedicated Local Economic Development Plan that promotes localised economic development throughout the project life cycle	Scale of Achievement 0 -2	Socio-Economic Development	Is there a local socio-economic development plan?	Yes/No	Socio-Economics	What is the total population of the area?	Number
		Identification of Economic Sites for sustainable economic development	Scale of Achievement 0 -2		Number of stands to advance township economies	Number		What is the income distribution of households in the PDA? [Annual]	Number
		Access to Economic Opportunities through the provision of economic sites and services at project and precinct level	Scale of Achievement 0 -2		Are spaces allocated for localised economic development within public transport nodes?	Yes/No		Has there been a socio-economic survey of the PDA and/or parts of the PDA?	Yes/No
		Access to informal economic opportunities through the provision of sites for informal economic integration (informal trading areas, taxi ranks)	Scale of Achievement 0 -2		Number of new SMME created (Projects)	Number		What is the main economic activity of the PDA? (where are people generally employed e.g. Mining, Industry, Serve a major economic node)	Open-Ended
					Number of new SMME created (Planned)	Number		Are there SMMEs in the area? What are the challenges and opportunities for SMMEs in the PDA?	Open-Ended
			Number of additional jobs created	Number	Is there adequate spaces allocated for the informal sector and spaces for upscaling?	Open-Ended	Economic Development and Job Creation		
			Is space available for informal trade on walkways?	Yes/No	Are the new spaces for different economic activities in the PDA (Retail, Industrial, Business etc)?	Open-Ended			
			Evidence of food production and security (roof top gardens, urban farming etc.)	Yes/No	What are the employment levels of the PDA? (Formal)	Number			
			What is the project cash flow and different funding/financing streams?	Number	Return on Investment	What are the employment levels of the PDA? (Informal)	Number		
			What is the ratio of the total expenditures (operations, maintenance and capital)	Number		What are the unemployment levels of the PDA?	Number		
			What is the interest on borrowed funds to date?	Number					
			What is the amount of funds granted and used?	Number					
			What is the net profit/loss margin?	Number					

Spatial Transformation Theme	IRDP (original spatial transformation indicators)			Catalytic Projects			PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement
Transversal Alignment	Transversal Alignment	Alignment with the National DHS strategic objectives contained in the Medium Term Strategic Framework (MTSF)	Scale of Achievement 0 -2	Transversal Alignment	Is the project aligned with the strategic MTSF objectives?	Yes/No	Transversal Alignment	What roadblocks need to be unblocked for PDA implementation? [E.g. Sectoral Alignment, Transversal Alignment]	Open-Ended
		Alignment with the Provincial strategic objectives contained in the Provincial Growth Strategy	Scale of Achievement 0 -2		Is the project aligned with the Provincial Strategic Objectives?	Yes/No			
		Alignment with the local government spatial plans such as the Integrated Development Plan (IDP), the Spatial Development Framework (SDF) and the Built Environment Performance Plan (BEPP) (BEPP is Metro Specific)	Scale of Achievement 0 -2		Is the project within a declared PDA?	Yes/No			
Urban Management	Urban Management	A project specific Urban Management Plan (UMP) for the human settlement development	Scale of Achievement 0 -2	Urban Management	Is the project aligned with Local Government Plans e.g. IDP, SDF, BEPP (BEPP - Metros)?	Yes/No	Urban Management	What plans are there for urban management in the area during and post implementation?	Open-Ended
		Urban Management Capacitation in terms of resource mobilisation and capacity of the municipality to provide urban management services over the life cycle of the development	Scale of Achievement 0 -2		Was urban management and maintenance reserve fund factored in?	Yes/No			
		Building and Precinct Maintenance Plan to promote sustainable neighbourhood development	Scale of Achievement 0 -2		Is the project part of the municipality's UMP?	Yes/No			
		Budget Provision for Urban Management and Maintenance (building and precinct level) over the life cycle of the development	Scale of Achievement 0 -2		Does the municipality have financial capacity to provide urban management services after project handover?	Yes/No			
					Does the municipality have institutional capacity to provide urban management services after project handover?	Yes/No			
					Does the project have a building maintenance plan? Have beneficiaries received education about maintaining their residential units post handover?	Yes/No Yes/No			

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs			
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Area-level Indicator	Type of Measurement		
Urban Management				Urban Management	Does the municipality have a Precinct Maintenance Plan?	Yes/No		
					Does the municipality have financial capacity to provide precinct management services after project handover?	Yes/No		
					Does the municipality have institutional capacity to provide precinct management services after project handover?	Yes/No		
					What types of Innovative Technologies are installed?	Open-Ended		
Quality, Climate Change Resilience & Social Cohesion	Quality	Innovative Urban Design that promotes inclusivity, efficient land uses and environmental and social sustainability	Scale of Achievement 0-2	Quality	Climate Change Resilience and the Natural Environment	What are the number of units fitted with innovative technology?	Number	
		Densification and Compaction that promotes improved density across the development	Scale of Achievement 0-2			Number of units fitted with innovative technologies	Number	
		Typology and Tenure Mix that provides a range of housing types and tenure	Scale of Achievement 0-2			Number of Solar panels installed	Number	
		Common Level of Public Façade that promotes a single level of public treatment such as sidewalks, street lighting, landscaping and curbing	Scale of Achievement 0-2			Number of water harvesting tanks installed	Number	
	Social Cohesion and Benefit						Have EIA's been conducted in the area?	Yes/No
							What are the design and planning initiatives to encourage social cohesion and benefit? E.g. Good public places, mixed use spaces and mixed typologies	Open-Ended
							What engagements are being undertaken so that leaders, communities, and other interested parties on-the-ground are involved in the design and planning of the PDA?	Open-Ended
							What identified community needs are being incorporated into the plan?	Open-Ended

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs		
	Pillars	Project-level Indicator	Type of Measurement	Pillars	Project-level Indicator	Type of Measurement	
Quality, Climate Change Resilience & Social Cohesion	Public Safety	Sites for SAPS and Emergency Services	Scale of Achievement 0-2	Public Safety	How many SAPS sites are available within the precinct?	Number	
		Active Police Station, Fire Station	Scale of Achievement 0-2			How many firestations are within the precinct?	Number
		Safety/Security Measures (perimeter fencing, private security services)	Scale of Achievement 0-2			How many SAPS stations are within the precinct?	Number
	Public Safety	Public Safety	Public Safety	Are there measures in place to protect the land from invasions? [Where projects are in planning and implementation]	Yes/No	Are housing opportunities linked to beneficiaries and title deed distribution?	Open-Ended
				Are there measures in place to protect the development from illegal occupation? [Where projects are in planning and implementation]	Yes/No	What are the current densities of the PDA area?	Number: Units per hectare
				Are there measures in place to protect the precinct?	Yes/No		

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs			
	Pillars	Project-level Indicator	Pillars	Project-level Indicator	Pillars	Area-level Indicator		
Functional and equitable residential property markets				Is there a housing options available for BNG? How many?	Property Market	What is the property profile of the PDA? (types of property, rate of transactions, average transaction value, percentage bonded transactions etc.)	Type of Measurement	
				Is there a housing options available for FLISP? How many?		Number	Number of residential properties	Number
				Is there a housing options available for Social housing? How many?		Number	Value of residential properties	Number
				Is there a housing options available for CRU? How many?		Number	Average property value	Number
				Is there Free/Open market housing? How many?		Number	Number of residential transactions	Number
				Number of EPHP beneficiaries in the project?		Number	Percent transactions bonded	Percentage Number
				Number of emergency housing beneficiaries in the project?		Number	Percent new transactions bonded	Percentage Number
				Number of GEHS beneficiaries in the project?		Number	New transactions	Number
				Number of loans to government sponsored properties in the precinct?		Number	Repeat transactions	Number
				Number of loans/subsidies granted to beneficiaries by private banks?		Number	Percent repeat transactions	Percentage Number
				Number of beneficiaries not granted a loan?	Number	Average transaction price	Number	
				No of residential properties	Number	Number of bonded transactions	Number	
				Value of residential properties	Number	Number of bank loans in the area	Number	
				Average property value	Number			
				Number of residential transactions	Number			
				Percent transactions bonded	Percentage Number			
				Percent new transactions bonded	Percentage Number			
				New transactions	Number			
				Repeat transactions	Number			



Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs	
	Pillars	Project-level Indicator	Pillars	Project-level Indicator	Area-level Indicator	Type of Measurement
Human Settlements Transformation Scorecard				Percent repeat transactions		Percentage Number
				Average transaction price		Number
				Number of bonded transactions		Number
				Number of bank loans in the area		Number
				Developer BEE		
				BEE compliant		Levels: Analysed through benchmarking
				Percentage black ownership		Percentage: Analysed through benchmarking
				Percentage youth ownership		Percentage: Analysed through benchmarking
				Percentage women ownership		Percentage: Analysed through benchmarking
				Percentage disabled ownership		Percentage: Analysed through benchmarking
				Percentage military vets ownership		Percentage: Analysed through benchmarking
				Women empowerment		
				Number of women owned entities (supplier, contractor, developer etc.)		Number
				Number of females trained		Number
				Cost of training		Number
				Number of EPWP employment opportunities for females		Number
				Number of mortgage loans for females		Number
			Value of loans for females		Number	
			Youth empowerment			
			Number of youth owned entities (supplier, contractor, developer etc.)		Number	

Spatial Transformation Theme	IRDP (original spatial transformation indicators)		Catalytic Projects		PDAs	
	Pillars	Project-level Indicator	Pillars	Project-level Indicator	Pillars	Area-level Indicator
Human Settlements Transformation Scorecard						

Sources

IRDP: Extract from HDA, (2017a): 28-29

Catalytic Projects: Derived from various sources including CSIR (2000), HDA (2017a), HDA (2017c), HDA (2017d), HDA (2018b), NDHS (2019b), consultations and engagements (see section 'Evolution of Scale and Tools' for methodology). PDAs: Derived from various sources including Dudley et al (2010), StatsSA (2011), HDA (2014a), Schupbach (2015), SACN (2016a), SACN (2016b), HDA (2018a), Rosenberg (2020), Schreiber (n.d), GTI-SA and AfriGIS datasets, previous work on spatial transformation, engagements and consultations (see consultations in reference list).



Annexure B: Catalytic Selection Scoring Tool

Project	
Project Scoring	-

Project Catalytic Scoring Summary:

Criteria	Criteria Weight	Criteria Score (out of 100)	Score
Critical Regional Mass	10	-	-
Site Selection & Innovation	15	-	-
Built Environment Capacity	30	-	-
Supply & Demand	25	-	-
Innovation & Catalytic	35	-	-
Economic Activity	40	-	-
TOTAL	155	-	-

Criteria	Criteria Weight	Criteria Score (out of 100)	Score (out of weight criteria total)	Criteria	Score Allocated (0 to 4)	Weight Breakdown (Total must equal 100%)	Points (based on score allocated)	Score	Scoring Guidelines
1. Critical Regional Mass (Number of housing opportunities, options & contribution to densities)	10	0	0	1. Critical Regional Mass	0	100%	0	0	Number of housing opportunities. Scoring: 0: Less than 5000 1: 5,000 to 7,500 2: 7,500 to 10,000 3: 10,000 to 15,000 4: 15,000+
				1.1. Does the project offer scale delivery of housing opportunities?		25%	0	0	
				1.2. Does the project offer a variety of housing typologies (built products: single, multi-storey/detached, semi-detached)?		25%	0	0	Number of housing typologies options. Scoring: 0: Only 1 option 2: 2 options 4: 3 and more options
				1.3. Does the project offer a variety of housing options (ownership, rental/government subsidised, private funding etc.)		25%	0	0	Number of housing options. Scoring: 0: Only 1 option 2: 2 options 4: 3 and more options
				1.4. Does the project offer the minimum net density (60du/ha)		25%	0	0	Scoring: 0: Less than 60 du/ha 1: 60 - 80 du/ha 2: 80 - 100 du/ha 3: 100 - 120 du/ha 4: 120 du/ha and more
2. Site selection & Innovation (Planned facilities & inclusion in IDP)	15	0	0	2. Site selection & Innovation	0	100%	0	0	
				2.1. Does the project integrate with the existing government investment in terms of infrastructure (proximity to or use of existing bulk infrastructure)		20%	0	0	Scoring: 0: No, project is far from existing bulk infrastructure 4: Yes, the project links with existing bulk infrastructure
				2.2. Does the project integrate with the existing government investment in terms of social amenities (schools, health centres, parks and other government-funded amenities)		20%	0	0	Scoring: 0: No - requires additional social facilities not included in the project 2: Yes - additional facilities required are partially provided for 4: Yes - additional facilities required and provided for
				2.3. Is the project included in or reflective of the goals and intentions of local SDF, IDP plans and MTSF targets?		20%	0	0	Scoring: 0: No 2: Partially, included in SDF and IDP but not MTSF / Included in MTSF but not IDP and SDF 4: Yes, included in IDP, SDF and MTSF
				2.4. Does the proposed project improve the spatial layout of the city/town?		20%	0	0	Scoring: 0: No, project is not located within the urban edge and does not promote a compact city 4: Yes, project is located within the urban edge and promotes a compact city
			2.5. Are job/work opportunities accessible from the project location? (Office/business park, retail/commercial/industrial facilities/mine etc.)		20%	0	0	Scoring: 0: More than 20km 1: Within a 10km to 20km radius 2: Within a 5km to 10km radius 3: Within a 1km to 5km radius 4: Walking distance (less than 1km)	

Criteria	Criteria Weight	Criteria Score (out of 100)	Score (out of weight criteria total)	Criteria	Score Allocated (0 to 4)	Weight Breakdown (Total must equal 100%)	Points (based on score allocated)	Score	Scoring Guidelines
3. Built Environment Capacity (Environmental & Community Impact Planning)	10	0	0	1. Critical Regional Mass	0	100%	0	0	Scoring: 0: No relevance (only addresses current capacity) 2: Yes, planned for short term relevance (will address future capacity) 4: Yes, planned for long term relevance (will address future capacity)
				3.1. Does the project provide for social amenities and appropriate infrastructure that will be relevant over the long term?		30%	0	0	
				3.2. Is this an environmentally conscious/considerate project?		30%	0	0	Scoring: 0: No environmental process has been followed (no EIA/ environmental authorisation etc.) 2: Environment has been taken into consideration during planning phase only 4: Environmental has been taken into consideration during planning, design and implementation phases
4. Supply & Demand (Is the project addressing local needs?)	25	0	0	3.3. Is there a community engagement strategy in place to integrate the existing communities into the development? 4. Supply & Demand	0	100%	0	0	Scoring: 0: No 2: Yes, but not fully implemented 4: Yes, and fully implemented
				4.1. Does the project address the housing demand (has a market study been conducted to determine the demand)?		40%	0	0	Scoring: 0: No market study has been done 2: Yes, but the market study is older than 2 years 4: Yes, a market study has been done and it is still relevant (no older than 2 years)
				4.2. Does the project cater for a variation of different levels of affordability? 4.3. Does the project achieve a mix of tenure options?		40%	0	0	Scoring: 0: Only low income 2: Low and medium income 4: Low, medium and high income Scoring: 0: Only one option (either own or rent) 4: Ownership and rental options

Criteria	Criteria Weight	Criteria Score (out of 100)	Score (out of weight criteria total)	Criteria	Score Allocated (0 to 4)	Weight Breakdown (Total must equal 100%)	Points (based on score allocated)	Score	Scoring Guidelines
5. Innovative & Catalytic (Will the project create visible, positive change & impact?)	35	0	0	5. Innovation & Catalytic	0	100%	0	0	
				5.1. Has the site been selected with a view to recycling of land, re-appropriation of existing buildings, revitalising an economically distressed area or the innovative siting/location of housing?		25%	0	0	Scoring: 0: No 4: Yes
				5.2. What is the projects estimated timeframe?		25%	0	0	Scoring: 0: Completion after 5 or more years 2: Completion within the next 2 to 5 years 4: Less than 2 years to completion
				5.3. Will it fill a spatial gap in the city's layout?		25%	0	0	Scoring: 0: No 2: Yes, to some extent 4: Yes
				5.4. Will the project stand out nationally, contribute to national housing objectives or spatial priorities?		25%	0	0	Scoring: 0: No 4: Yes
6. Economic Activity (Contribution to local socio-economic growth)	40	0	0	6. Economic Activity	0	100%	0	0	
				6.1. How will the local economy benefit in job creation? What is the extent of the job creation?		40%	0	0	Scoring: 0: Less than 10,000 job opportunities will be created 1: 10,000 to 25,000 job opportunities will be created 2: 25,000 to 50,000 job opportunities will be created 3: 50,000 to 100,000 job opportunities will be created 4: 100,000 job opportunities and more
				6.2. Will the proposed project create a new community that will contribute to the socio-economic growth of the broader area (commercial/retail/industrial sites included in the development).		30%	0	0	Scoring: 0: No, the project includes only residential development 2: Yes, the project will include a small number of commercial/retail development 4: Yes, the project will include a large number of commercial/retail/industrial development
			6.3. Will the project include private sector investment/participation?		30%	0	0	Private sector Contribution: Scoring 0: None 1: Less than 10% 2: 10% to 20% 3: 20 to 40% 4: More than 40%	

Source: Extract of HDA (2016b): 1-2

ANNEXURE C: MONITORING APPROACH FOR PDAS

Outcomes	INDICATORS	DEFINITION & METHOD OF MEASUREMENT	BASELINE of INDICATOR	TARGET	DATA SOURCE	FREQUENCY	RESPONSIBLE	REPORTING
		How is defined and measured?	What is the current measurement of Indicator?	What is the target measurement of Indicator?	How will it be measured?	How often will it be measured?	Who will measure it?	Where will it be reported?
	Set Indicator 1.1 Land	Land ownership	Land ownership % Land developability index	Vacant state land or landed properties 90-100% developable	Calculate the area of vacant land or landed properties [Data Source: DRALR, 2013-14 & 2017-18; GTI-SA, 2018] Calculate the % of land developable land [Data Source: HDA, 2018a]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
	Set Indicator 1.2 Infrastructure	Current infrastructure in the area: Water Sewerage Electricity Roads	Water and sewer capacities in the area Electricity capacity in the area condition and capacity of the road infrastructure in the area	100% of households having access to electricity, flush toilets and water in their house 100% Access to road infrastructure	% of households with access to water, electricity, and sewer in their households [Data Source: Stats SA, 2011]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
Outcome 1 “Create opportunities for liveable, inclusive and resilient towns and cities”	Set Indicator 1.2 Climate Change Resilience and the Natural Environment	Innovative technology Water Harvesting tanks Solar panels Land Developability	No. of units with innovative technology Land Developability Index	100% of new units fitted with innovative technology 90-100% developable	Innovative technology incorporated in new housing projects [Data Source: Development Plans, Urban Design Plans and other project plans] Calculate the % of land developable land [Data Source: HDA, 2018a]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
	Set Indicator 1.3 Mixed Land Use	Encourage mixed land uses	Structures for different land uses (current) Zoning of the PDA (current) Plans for stands for retail, business, SMMEs, community services and other land uses.	Comparisons of different structures for different land uses Analysis of zoning status of an area. Plans for residential or rezone to residential for housing need. 55% Residential, Industrial, and Commercial use (CSIR, 2000)	No of structures for different land uses [Data Source: GTI-SA, 2020] Determine zoning status using municipal. [Data Source: Municipal Zoning Schemes and Maps] No. of stands for Residential, Industrial, and Commercial use [Data Source: Development Plans, Land Use and Urban Design Plans]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
	Set Indicator 1.4 Transport Networks	Modes of Public Transport Suburbs serviced by transport stops Adequate NMT Infrastructure	Types of public transport Sufficient transport stops Existence of NMT infrastructure	Different public transport modes in the area (taxi transport etc). All suburbs serviced by public transport Adequate NMT infrastructure	Public Transport in the Area [Data Source: Calculation from AfrGIS, 2021 Data] Public transport stops in the area [Data Source: Calculation from AfrGIS, 2021 Data] Suburbs and transport stops [Data Source: Calculation from AfrGIS, 2021 Data]	Quarterly	HDA	Quarterly and Annual reports



Outcomes	INDICATORS	DEFINITION & METHOD OF MEASUREMENT	BASELINE of INDICATOR	TARGET	DATA SOURCE	FREQUENCY	RESPONSIBLE	REPORTING
		How is defined and measured?	What is the current measurement of indicator?	What is the target measurement of indicator?	How will it be measured?	How often will it be measured?	Who will measure it?	Where will it be reported?
	Set Indicator 2.1 Housing Typologies and Density	Need to design for the appropriate housing need in the area and make sure a variety of options are available. Decreased housing need in the PDAs	Typologies Density Housing need database	Different housing typologies (at least 4 housing typologies) and integrated human settlement Increased liveable density over time Decreased housing need	Typologies [Data Source: Development Plans, Urban Design Plans & other project plans] Density [Data Source: GTI-SA, 2018 & PDA Areas] Housing Needs [Data Source: National Housing Needs Register]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
	Set Indicator 2.2 Amenities & Services	Prioritise providing amenities with good location and population need.	Amenities and Services (current and planned as well as if it will serve the incoming population)	100% access to amenities, within allowable walking/access distance and servicing the population. Calculation based on red book provisions (CSIR, 2000; NDHS, 2019b).	Amenities servicing current population [Date Source: Calculation from AfrGIS, 2021 & GTI-SA, 2020 Data]	Baseline Implementation (Annually) Post – implementation	HDA	Quarterly and Annual reports
Outcome 2 “Reverse the unjust and dysfunctional spatial legacy of apartheid”	Set Indicator 3.1 Property Markets	What is the property profile of the PDA? (types of property, rate of transactions, average transaction value, percentage bonded transactions etc.)	Property transactions analysis	Low-income households participating in the property market	Property market in the area [Data Source: HDA, 2018b]	Quarterly	HDA	Quarterly and Annual reports
	Set Indicator 3.2 Socio-Economics	Income Distribution	Current Income Distribution	Increase in overall income	Income distribution of households [Data Source: GTI-SA, 2020 Data] Socio-Economic Surveys	Quarterly	HDA	Quarterly and Annual reports
	Set Indicator 3.3 Economic Development and Job Creation	Main economic driver SMMES opportunities including informal trading spaces Land use planning Employment Levels	Land uses for economic opportunities (retail, business, industrial) Informal trading spaces Employment Levels (Formal and Informal) Unemployment Levels	Sufficient land uses for economic opportunities Sufficient space allocations for informal trading spaces Increase in economic opportunities Decrease in unemployment levels	Development Plans Urban Design Plans Socio-Economic Surveys Employment Levels [Data Source: Stats SA, 2011]	Quarterly	HDA	Quarterly and Annual reports
Outcome 4 “Increase the asset creation potential of the state’s investments in human settlements”	Set Indicator 4.1 Urban Management	Municipal urban management plans Building maintenance Beneficiary education	Municipal urban management plans Building maintenance Beneficiary education	Municipal urban management plans incorporated in planning for new projects Building maintenance fund Beneficiary education	Beneficiary education [Data Source: Project Plans] Urban management plans of the municipality	Quarterly	HDA	Quarterly and Annual reports

SPATIAL TRANSFORMATION SCORING TOOL BENCHMARKS (A)

SPATIAL TRANSFORMATION SCORING TOOL BENCHMARKS (A)

INDICATOR	PROXY	GOOD PROGRESS	MEDIUM PROGRESS	NEEDS SOME WORK
OVERVIEW				
ENVISIONED HOUSING YIELD (HOUSING NEED)	HOUSING NEED	≥ 90% CONFIDENCE INDEX	50 - 90% CONFIDENCE INDEX	≤ 50% CONFIDENCE INDEX
BREAKDOWN OF HH OPPORTUNITIES (TYPOLOGY)	HOUSING TYPOLOGIES	BNG + FLISP + SH/CRU + OPEN MAR	BNG + FLISP + SH/CRU	[ONE TYPOLOGY]
HH OPP = BENEFICIARIES = TITLE DEEDS (FIN YEAR)		HH OPP = BENEFICIARIES = TITLE D	HH OPP = BENEFICIARIES	HOUSING OPPORTUNITIES
DENSITY (ANALYSIS)	50 DU HA URBAN AREAS	> 50 DU/HA	10-50 DU/HA	< 10 DU/HA
PILLAR 1 : TRANSVERSAL ALIGNMENT (ANALYSIS)	MTSF + PHDA + PGDS + IDP/SDF	MTSF + PHDA + PGDS + IDP/SDF	MTSF + PGDS + IDP/SDF	[ONE FRAMEWORK]
PILLAR 2 AND PILLAR 3: LAND VALUE-ADD / INTEGRATION				
DEVELOPABLE LAND	% OF DEVELOPABLE LAND	100% DEVELOPABLE	50-99% DEVELOPABLE	< 50 % DEVELOPABLE
EDUCATIONAL AMENITIES				
NURSERY/CRECHE	750M WD OR 1 PER 5000	≤ 750M WD OR 1 PER 5000	751M-1500M WD OR 1 PER 5001-10000	≥ 1500M WD OR 1 PER > 10000
PRIMARY SCHOOL	1.5KM WD OR 1 PER 3-4000	≤ 1.5KM WD OR 1 PER 3-4000	1.501KM-3KM WD OR 1 PER 4001-8000	> 3KM WD OR 1 PER > 8000
SECONDARY SCHOOL	2.25KM WD OR 1 PER 6-10 000	≤ 2.25KM WD OR 1 PER 6-10000	2.25-4.5KM WD OR 1 PER 10 001-20000	> 4.5KM WD OR 1 PER > 20000
TERTIARY FACILITY	[DEPENDS ON REGIONAL SCALE]	1 PER TOWN	1 PER MUNICIPALITY	1 PER PROVINCE
HEALTH AMENITIES				
MOBILE CLINIC	1KM WD OR 1 PER 5000	≤ 1KM OR 1 PER 5000	1.001-2KM WD OR 1 PER 5001-10000	> 2KM WD OR 1 PER > 10 000
CLINIC	2KM WD OR 1 PER 5000	≤ 2KM WD OR 1 PER 5000	2.001-4KM WD OR 1 PER 5001-10000	> 4KM WD OR 1 PER > 10 000
HOSPITALS	[DEPENDS ON REGIONAL SCALE]	1 PER TOWN	1 PER MUNICIPALITY	1 PER PROVINCE
RECREATIONAL AMENITIES				
LARGER PARKS	500M WD	≤ 500M WD	501M - 1000M WD	> 1000M WD
SMALLER PARKS	300M WD	≤ 300M WD	301M - 600M WD	> 600M WD
SPORTS FIELDS	300M WD	≤ 300M WD	301M - 600M WD	> 600M WD
CULTURAL AMENITIES				
LIBRARY	1.5KM-2.25KM WD OR 1 PER 5-50 000	≤ 2.25KM OR 1 PER 50000	2.25-4.5KM WD OR 1 PER 50001-100 000	> 4.5KM OR 1 PER > 100000
COMMUNITY CENTRES	1.5KM-2.25KM WD OR 1 PER 10000	≤ 2.25KM OR 1 PER 10000	2.25-4.5KM WD OR 1 PER 10001-20000	> 4.5KM OR 1 PER > 20000
RELIGIOUS CENTRES	1.5KM WD OR 1 PER 2000	≤ 1.5KM OR 1 PER 2000	1.5-3KM WD OR 1 PER 2001-4000	> 3KM OR 1 PER > 4000
ADMINISTRATIVE AMENITIES				
MUNICIPAL OFFICES/PAY POINTS	30 MIN TRAVEL TIME OR 1 PER 50000	30 MIN TRAVEL TIME OR 1 PER 50000	31-60MIN TT OR 1 PER 50001-100000	> 60MIN TT OR 1 PER > 100000
POST OFFICE	2KM WD OR 1 PER 11000	≤ 2KM OR 1 PER 11000	2-4KM WD OR 1 PER 11001-22000	> 4KM OR 1 PER > 22000
POLICE STATION	1.5KM WD OR 1 PER 25000	≤ 1.5KM WD OR 1 PER 25000	1.501KM-3KM WD OR 1 PER 25001-50000	> 3KM WD OR 1 PER > 50000
FIRE STATION	1 PER 60000	1 PER 60000	1 PER 60001 - 120000	1 PER > 120000
CHILDREN'S HOME	1 PER 200000	1 PER 200000	1 PER 200001 - 400000	1 PER > 400000
COMMUNITY INFO CENTRES	1KM WD OR 1 PER 22000	≤ 1KM OR 1 PER 22000	1.001-2KM WD OR 1 PER 22001 - 44000	> 2KM WD
SHOPPING POINTS	1KM WD	≤ 1KM WD	1.001 - 2KM WD	> 2KM WD

SPATIAL TRANSFORMATION SCORING TOOL BENCHMARKS (A)

INDICATOR PROXY GOOD PROGRESS MEDIUM PROGRESS NEEDS SOME WORK

WATER AND SEWER	MIN 25L PERSON/DAY OR 6KL HH/MNTH	≥ 25L PERSON/DAY OR ≥ 6KL HH/MNTH	N/A	<25L PERSON/DAY OR <6kl HH/MNTH	DERIVED: CSIR (2000)
ELECTRICITY	AVERAGE 230-340KWH PER MONTH	> 230-340 KWH HH PER MONTH	N/A	< 230-340 KWH HH PER MONTH	DERIVED: Cape Water Solutions
ROAD INFRASTRUCTURE	CLASS 1 - CLASS 6				DERIVED: COI, (n.d.)
ICT INFRASTRUCTURE	KM OF BROADBAND/FIBRE-OPTIC				
LAND TO CATALYSE PRIVATE SECTOR					
NO OF STANDS FOR INSTITUTIONAL USE	REGIONAL SCALE	1 PER TOWN	1 PER MUNICIPALITY	1 PER PROVINCE	
NO OF STANDS FOR RES, IND AND COM USE	55% RES, COM AND IND USES	RES + COM + IND USES	[ANY TWO]	RESIDENTIAL ONLY	DERIVED: CSIR (2000)
TRANSPORT					
PUBLIC MODES OF TRANSPORT	BUS + TAXI + BRT + TRAIN + CAB	[THREE MODES]	[TWO MODES]	[ONE MODE]	
TRANSPORT NODES	PER AREA	1 PER SUBURB	1 PER 2-5 SUBURBS	1 PER > 5 SUBURBS	
NMT [WALKWAYS/CYCLE LANES]	WALKING DISTANCE - TRANS NODE	≤ 2.5KM WD	2.5-5KM WD	>5KM WD	
PILLAR 4: HUMAN SETTLEMENTS TRANSFORMATION SCORECARD					
DEVELOPER BEE					
BEE COMPLIANT	BEE LEVELS	LEVEL 1 - 4	LEVEL 5 - 8	LEVEL 9	DERIVED: HDA, (2017d)
% BLACK OWNERSHIP	PERCENTAGE	> 65%	45-65%	< 44%	DERIVED: HDA, (2017d)
% YOUTH OWNERSHIP	PERCENTAGE	> 50%	30-50%	< 29%	DERIVED: HDA, (2017d)
% WOMEN OWNERSHIP	PERCENTAGE	> 50%	30-50%	< 29%	DERIVED: HDA, (2017d)
% DISABLED OWNERSHIP	PERCENTAGE	> 29%	5-29%	< 4%	DERIVED: HDA, (2017d)
% MILITARY VETS OWNERSHIP	PERCENTAGE	> 29%	5-29%	< 4%	DERIVED: HDA, (2017d)
SUPPLIER TRANSFORMATION (SERVICE SUPPLIER)					
BEE COMPLIANT	BEE LEVELS	LEVEL 1 - 4	LEVEL 5 - 8	LEVEL 9	DERIVED: HDA, (2017d)
% BLACK OWNERSHIP	PERCENTAGE	> 65%	45-65%	< 44%	DERIVED: HDA, (2017d)
% WOMEN OWNERSHIP	PERCENTAGE	> 50%	30-50%	< 29%	DERIVED: HDA, (2017d)
% SUPPLIERS WITHIN THE COMMUNITY	PERCENTAGE	> 79%	25-79%	< 24%	DERIVED: HDA, (2017d)
SUPPLIER TRANSFORMATION (PRODUCT SUPPLIER)					
BEE COMPLIANT	BEE LEVELS	LEVEL 1 - 4	LEVEL 5 - 8	LEVEL 9	DERIVED: HDA, (2017d)
% BLACK OWNERSHIP	PERCENTAGE	> 65%	45-65%	< 44%	DERIVED: HDA, (2017d)
% WOMEN OWNERSHIP	PERCENTAGE	> 50%	30-50%	< 29%	DERIVED: HDA, (2017d)
CONTRACTORS TRANSFORMATION					
% JOBS FOR THE LOCAL COMMUNITY	PERCENTAGE	> 89%	80-89%	< 79%	DERIVED: HDA, (2017d)
BEE COMPLIANT	BEE LEVELS	LEVEL 1 - 4	LEVEL 5 - 8	LEVEL 9	DERIVED: HDA, (2017d)
% BLACK OWNERSHIP	PERCENTAGE	> 65%	45-65%	< 44%	DERIVED: HDA, (2017d)
% WOMEN OWNERSHIP	PERCENTAGE	> 50%	30-50%	< 29%	DERIVED: HDA, (2017d)

CONCEPTUALIZED BY THE MONITORING & EVALUATION, KNOWLEDGE MANAGEMENT AND RESEARCH PLANNING TEAM
 DATE: 28TH FEB 2019
 QUERIES: reesa.ghor@thehda.co.za



SPATIAL TRANSFORMATION PLANNING TOOL BENCHMARKS (B)

INDICATOR

PROXY

GOOD PROGRESS

MEDIUM PROGRESS

NEEDS SOME WORK

OVERVIEW	HOUSING NEED	≥ 90% CONFIDENCE INDEX	50 - 90% CONFIDENCE INDEX	≤ 50% CONFIDENCE INDEX
ENVISIONED HOUSING YIELD (HOUSING NEED)	BING + FLUSP + SH + CRU + OMI + SA etc	[AT LEAST 5 TYPOLOGIES]	[AT LEAST 3 TYPOLOGIES]	[1-2 TYPOLOGIES]
BREAKDOWN OF HH OPPORTUNITIES (TYPOLOGY)	50 DU HA URBAN AREAS	HH OPP = BENEFICIARIES = TITLE D	HH OPP = BENEFICIARIES	HOUSING OPPORTUNITIES
HH OPP = BENEFICIARIES = TITLE DEEDS (FIN YEAR)	MTSF + PHDA + PGDS + IDP/SDF	> 50 DU/HA	10-50 DU/HA	< 10 DU/HA
DENSITY (ANALYSIS)	MTSF + PHDA + PGDS + IDP/SDF	MTSF + PHDA + PGDS + IDP/SDF	MTSF + PGDS + IDP/SDF	[ONE FRAMEWORK]
PILLAR 1 : TRANSVERSAL ALIGNMENT (ANALYSIS)				
PILLAR 2 AND PILLAR 3: LAND VALUE-ADD / INTEGRATION				
DEVELOPABLE LAND	% OF DEVELOPABLE LAND	90-100% DEVELOPABLE	50-89% DEVELOPABLE	< 50 % DEVELOPABLE
SHOPPING POINTS	1KM WD	≤ 1KM WD	1.001 - 2KM WD	> 2KM WD
EDUCATIONAL SERVICES				
EARLY CHILDHOOD DEVELOPMENT CENTRES	2-5km AD OR 1 PER 2400-3500	≤ 5km AD OR 1 PER 2400-3500	5.001-10KM AD OR 1 PER 3501-7000	> 10km AD OR 1 PER > 7000
EARLY CHILDHOOD DEVELOPMENT RESOURCE CENTRE/HUB*	5KM AD OR 1 PER 20000	≤ 5KM AD OR 1 PER 20000	5.001-10KM AD OR 1 PER 20000-40000	> 10KM AD OR 1 PER > 40000
PRIMARY SCHOOL	5KM AD OR 1 PER 2200-6600	≤ 5KM AD OR 1 PER 2200-6600	5.001-10KM AD OR 1 PER 6601-13200	> 10KM WD OR 1 PER > 13200
SECONDARY SCHOOL	5KM AD OR 1 PER 4000-10000	≤ 5KM AD OR 1 PER 4-10000	5.001-10KM AD OR 1 PER 10001-20000	> 10KM AD OR 1 PER > 20000
TERTIARY FACILITY		3km COMMUTING DISTANCE	3-50km COMMUTING DISTANCE	> 50KM COMMUTING DISTANCE
HEALTH SERVICES				
PRIMARY HEALTH CARE CLINICS	CLINIC 5-10KM AD OR 1 PER 5000-60000	≤ 10KM AD OR 1 PER 5000-60000	10.001-20KM AD OR 1 PER 60001-120000	> 20KM AD OR 1 PER > 120000
COMMUNITY HEALTH CENTRES (CHCs)	HOSPITALS 10KM AD OR 1 PER 60000-150000	≤ 10KM AD OR 1 PER 60000-150000	10.001-20KM AD OR 1 PER 150001-300000	> 20KM AD OR 1 PER > 300000
COMMUNITY SERVICES				
LIBRARIES (BASIC)	5KM AD OR 1 PER 5000-25000	≤ 5KM AD OR 1 PER 5000-25000	5.001-10KM AD OR 1 PER 25001-50000	> 10KM AD OR 1 PER > 50000
LIBRARIES (BRANCH)*	10KM AD OR 1 PER 50000-150000	≤ 10KM AD OR 1 PER 50000-150000	10.001-20KM AD OR 1 PER 150001-300000	> 20KM AD OR 1 PER > 300000
COMMUNITY HALLS	COMMUNITY CENTRES 8-10KM AD OR 1 PER 5000-60000	≤ 10KM AD OR 1 PER 5000-60000	10.001-20KM AD OR 1 PER 60001-120000	> 20KM AD OR 1 PER > 120000
CIVIC SERVICES				
MULTI-PURPOSE CENTRES*	15KM AD OR 1 PER 20000-200000	≤ 15KM AD OR 1 PER 20000-200000	15.001-30KM AD OR 1 PER 200001-400000	> 30KM AD OR 1 PER > 400000
DEPARTMENT OF HOME AFFAIRS & DEPARTMENT OF LABOUR	15KM AD OR 1 PER 20000-200000	≤ 15KM AD OR 1 PER 20000-200000	15.001-30KM AD OR 1 PER 200001-400000	> 30KM AD OR 1 PER > 400000
DEPARTMENT OF SOCIAL DEVELOPMENT	15KM AD OR 1 PER 5000-40000	≤ 15KM AD OR 1 PER 5000-40000	15.001-30KM AD OR 1 PER 40000-80000	> 30KM AD OR 1 PER > 80000
SASSA	15KM AD OR 1 PER 30000-120000	≤ 15KM AD OR 1 PER 30000-120000	15.001-30KM AD OR 1 PER 120000-240000	> 30KM AD OR 1 PER > 240000
SOCIAL GRANT PAY POINTS*	5KM AD OR 1 PER ≥ 200 grant recipients	≤ 5KM AD OR 1 PER 200 grant recep	5.001-10KM AD OR 1 PER 200-400 grant/rec	> 10KM AD OR 1 PER > 200 grant recep
SECURITY AND EMERGENCY SERVICES				
POLICE STATION	8KM AD OR 1 PER 10000-60000	≤ 8KM AD OR 1 PER 10000-60000	8.001KM-16KM AD OR 1 PER 60001-120000	> 16KM AD OR 1 PER > 120000
FIRE STATION	8KM AD (MINS) HIGH RISK & CBD	≤ 8KM AD	8.001KM-16KM AD	> 16KM AD
	13KM AD (MINS) SUBURBAN BRICK	≤ 13KM AD	13.001KM-26KM AD	> 26KM AD
SOCIAL SERVICES				
HOME FOR THE AGED & CHILD & YOUTH CARE CENTRES	25KM AD OR 1 PER 20000-60000	≤ 25KM AD OR 1 PER 20000-60000	25.001KM-50KM AD OR 1 PER 60001-120000	> 50KM AD OR 1 PER > 120000
COMMUNICATION SERVICES				
POST OFFICES/ POSTAL AGENCIES/ POST BOXES	5-10KM AD OR 1 PER 10000-20000	≤ 10KM AD OR 1 PER 10000-20000	10.001-20KM AD OR 1 PER 20001-40000	> 20KM AD OR 1 PER > 40000
ICT ACCESS HUBS/ INFORMATION CENTRES*	5KM AD OR 1 PER 5000	≤ 5KM AD OR 1 PER 5000	5.001 - 10KM AD OR 1 per 5000-10000	> 10KM AD OR 1 PER > 10000

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Annexure E: Spatial Investment Framework for Human Settlements (SIFHS) criteria for prioritising projects

CRITERIA			
IMPACT			
SUPPLY AND DEMAND	BUILT ENVIRONMENT CAPACITY	DEMOGRAPHIC/ DEPRIVATION PROFILE	ECONOMIC ACTIVITY
deliver the numbers to address housing demand	environmentally sensitive development	achieve mix in population profile (age, income)	achieve viable communities
achieve variation to cater for different levels of affordability	environmental impact assessments	achieve inclusionary neighbourhoods	achieve sustainable livelihoods and increase LED through links with housing delivery processes
achieve a mix of housing options and types	appropriate infrastructure - build in redundancy	variation in socio-cultural amenities to cater for different population groups	increase LED through links with local systems of food production
achieve a mix of tenure options	long term relevance - build in capacity for change	sell-able identity - achieve sense of ownership and pride	mixed use neighbourhoods
density targets	social amenities - for a range of income levels	achieve mix in deprivation profiles across all neighbourhoods	flexible zoning, licencing and approvals
pedestrian-focused developments		10x10 - proximity to ten places to see and 10 places to visit	
INTEGRATE			
SITE SELECTION INNOVATION	AREA-BASED PLANNING	REGIONAL CRITICAL MASS	PROJECT-LEVEL INNOVATION
assess spatial planning mechanisms	context-specific solutions	achieve desired scale of impact	innovative material use and efficiency in construction systems
assess project readiness - land audits and technical verification	developed mechanisms for collective and individual decision-making	optimise land development viz fiscal, institutional and admin means	flexible internal planning
assess geo-technical capacity	build in capacity for flexible decision making systems	empowerment - social revenue as return on investment	passive energy systems
achieve alignment of plans at national, regional, local levels	ensure cross-sectoral initiatives and collaborative funding	mass customisation - address the need for numbers while allowing for variation in individual need	no differentiation between housing products for different income levels
assess accessibility levels	achieve socio-political buy-in	stimulate effective and equitable functioning of land markets	differentiation in product design to allow for multiple users and adaptability
meet desired norms/ standards at planning and architectural scale		Improved access to use of land	built-in physical capacity for change and ease of maintenance over time
compact city			

Source: Extract from HDA, (2016c): 9

INFOGRAPHICS SUMMARY

The following infographics have been completed for the HDA. The highlighted infographics are the ones available in the publication. Should additional information be required about this work, please contact raeesa.ghoor@thehda.co.za or karishma.busgeeth@thehda.co.za

Spatial Transformation Infographics Completed		
Province	Catalytic Project/PDA	
Eastern Cape	Zanemvula CP - Chatty Sub-Project	Analysed with Benchmarks A
Eastern Cape	Zanemvula CP - Joe Slovo West Sub-Project	Analysed with Benchmarks A
Western Cape	Belhar CBD CP	Analysed with Benchmarks A
Western Cape	Forest Village CP	Analysed with Benchmarks A
Western Cape	Glenhaven CP	Analysed with Benchmarks A
Western Cape	Macassar CP	Analysed with Benchmarks A
Western Cape	Thembaletu CP	Analysed with Benchmarks A
North-West	Bokamoso CP	Analysed with Benchmarks B
Gauteng	Leeupoort Rem CP	Analysed with Benchmarks B
Gauteng	John Dube Village CP	Analysed with Benchmarks B
Gauteng	Malibongwe Ridge CP	Analysed with Benchmarks B
Gauteng	Luhfereng CP	Analysed with Benchmarks B
Gauteng	Olivenhoutbosch Ext 60 CP	Analysed with Benchmarks B
Gauteng	Syferfontein CP	Analysed with Benchmarks B
Gauteng	Kirkney Andeon CP	Analysed with Benchmarks B
Gauteng	Lion Park Ext 2 CP	Analysed with Benchmarks B
Gauteng	Esselen Park CP	Analysed with Benchmarks B
Western Cape	Vredenburg CP	Analysed with Benchmarks B
Free State	Bakenpark 6 & 7 CP	Analysed with Benchmarks B
Free State	Bakenpark 6 & 7 Risks and Mitigations	Not Applicable
Free State	Airport Node & Estoire CP	Analysed with Benchmarks B
Free State	Airport Node & Estoire Risks and Mitigations	Not Applicable
Free State	Sasolburg Properties CP	Analysed with Benchmarks B
Northern Cape	Postmasburg CP	Analysed with Benchmarks B
Northern Cape	Lerato Park CP	Analysed with Benchmarks B
Northern Cape	Lerato Park Risks and Mitigations	Not Applicable
Gauteng	Johannesburg South PDA	Analysed with Benchmarks B & New Methodology
Gauteng	Greater Alexandra PDA	Analysed with Benchmarks B
Mpumalanga	Emahlehni Expansion PDA	Analysed with Benchmarks B
Eastern Cape	Port St Johns PDA	Analysed with Benchmarks B
Mpumalanga	White River Development Area PDA	Analysed with Benchmarks B
Northern Cape	Kimberly PDA	Analysed with Benchmarks B
Limpopo	Polokwane CBD PDA	Analysed with Benchmarks B



SPATIAL TRANSFORMATION PLANNING TOOL

FREE STATE: BAKENPARK 6&7

LIFE CYCLE STAGE: DESIGN

HDA ROLE: IMPLEMENTING AGENT

OVERVIEW

SUMMARY (3) (0) (1) (1)

- 1 454 ENVISIONED HOUSING YIELD
- 0 HOUSES BUILT TO DATE
- 95% DEVELOPABLE LAND [INCLUDES BAKENPARK X5 & CITY] - UNITS/HA
- 0 HOUSING OPPORTUNITIES (FIN YEAR)
- 0 BENEFICIARIES (FIN YEAR)
- ENVISIONED HOUSING YIELD (HOUSING NEED)
- BREAKDOWN OF HH OPPORTUNITIES (TYPOLOGY)
- HH OPP = BENEFICIARIES = TITLE DEEDS (FIN YEAR)
- DENSITY (ANALYSIS)
- TRANSVERSAL ALIGNMENT (ANALYSIS)

QUALITY

SUMMARY (4) (0) (0) (0)

- INNOVATIVE TECHNOLOGIES
- INNOVATIVE TECHNOLOGIES (UNITS)
- SOLAR PANELS
- WATER HARVESTING TANKS

SOCIO-ECONOMIC DEVELOPMENT

SUMMARY (7) (0) (0) (4)

- SOCIO-ECONOMIC SURVEYS
- STANDS FOR BONDED AND FLISP HOUSING
- STANDS FOR COMMERCIAL AND RENTAL
- STANDS FOR MIXED LAND USE
- STANDS FOR BUSINESS DEVELOPMENTS
- SMME (PROJECTS)
- SMME (PLANNED)
- LED AND PUBLIC TRANSPORT
- ADDITIONAL JOBS CREATED
- INFORMAL TRADE ON WALKWAYS
- FOOD SECURITY

LAND VALUE-ADD [EXISTING]

SUMMARY (9) (9) (0) (11)

- EDUCATIONAL AMENITIES
- EARLY CHILDHOOD DEVELOPMENT CENTRES
- PRIMARY SCHOOL
- SECONDARY SCHOOL
- TERTIARY FACILITY
- HEALTH AMENITIES
- PRIMARY HEALTH CARE CLINICS [CLINICS]
- COMMUNITY HEALTH CENTRES [HOSPITALS]
- CULTURAL AMENITIES
- LIBRARIES
- COMMUNITY HALLS [COMMUNITY CENTRES]
- CIVIC SERVICES
- DEPARTMENT OF HOME AFFAIRS
- DEPARTMENT OF LABOUR
- DEPARTMENT OF SOCIAL DEVELOPMENT
- SASSA
- SOCIAL GRANT PAY POINTS
- MULTI-PURPOSE CENTRES
- SECURITY AND EMERGENCY SERVICES
- POLICE STATION
- FIRE STATION [HIGH RISK AND CBD]
- FIRE STATION [SUBURBAN BRICK]
- SOCIAL SERVICES
- HOME FOR THE AGED
- CHILD AND YOUTH CARE FACILITIES
- COMMUNICATION SERVICES
- POST OFFICES/ POSTAL AGENCIES/ PO BOXES
- ICT ACCESS HUBS/ INFORMATION CENTRES
- ECONOMIC AMENITIES
- SHOPPING POINTS
- WATER AND SEWER
- ELECTRICITY
- ROAD INFRASTRUCTURE
- ICT INFRASTRUCTURE
- LAND TO CATALYSE PRIVATE SECTOR
- NO OF STANDS FOR INSTITUTIONAL USE
- NO OF STANDS FOR RES. IND AND COM USE
- DEVELOPABLE LAND [LAND VALUE ADD ANALYSIS INCLUDES BAKENPARK X5 & CITY]

INTEGRATION [PLANNED]

SUMMARY (13) (9) (0) (7)

- EDUCATIONAL AMENITIES
- EARLY CHILDHOOD DEVELOPMENT CENTRES
- PRIMARY SCHOOL
- SECONDARY SCHOOL
- TERTIARY FACILITY
- HEALTH AMENITIES
- PRIMARY HEALTH CARE CLINICS
- COMMUNITY HEALTH CENTRES
- CULTURAL AMENITIES
- LIBRARY
- COMMUNITY HALLS [COMMUNITY CENTRES]
- CIVIC SERVICES
- DEPARTMENT OF HOME AFFAIRS
- DEPARTMENT OF LABOUR
- DEPARTMENT OF SOCIAL DEVELOPMENT
- SASSA
- SOCIAL GRANT PAY POINTS
- MULTI-PURPOSE CENTRES
- SECURITY AND EMERGENCY SERVICES
- POLICE STATION
- FIRE STATION [HIGH RISK AND CBD]
- FIRE STATION [SUBURBAN BRICK]
- SOCIAL SERVICES
- HOME FOR THE AGED
- CHILD AND YOUTH CARE FACILITIES
- COMMUNICATION SERVICES
- POST OFFICES/ POSTAL AGENCIES/ PO BOXES
- ICT ACCESS HUBS/ INFORMATION CENTRES
- ECONOMIC AMENITIES
- SHOPPING POINTS
- WATER AND SEWER
- ELECTRICITY
- ROAD INFRASTRUCTURE
- ICT INFRASTRUCTURE
- TRANSPORT
- TRANSPORT NODES
- PUBLIC MODES OF TRANSPORT
- NMVT [WALKWAYS/CYCLE LANES]

HS TRANSFORMATION SCORECARD

SUMMARY (17) (0) (0) (0)

DEVELOPER BEE

- BEE COMPLIANT
- % BLACK OWNERSHIP
- % YOUTH OWNERSHIP
- % WOMEN OWNERSHIP
- % DISABLED OWNERSHIP
- % MILITARY VETS OWNERSHIP
- SUPPLIER TRANSFORMATION (SERVICE SUPPLIER)
- BEE COMPLIANT
- % BLACK OWNERSHIP
- % WOMEN OWNERSHIP
- % SUPPLIERS WITHIN THE COMMUNITY
- SUPPLIER TRANSFORMATION (PRODUCT SUPPLIER)
- BEE COMPLIANT
- % BLACK OWNERSHIP
- % WOMEN OWNERSHIP
- CONTRACTORS TRANSFORMATION
- % JOBS FOR THE LOCAL COMMUNITY
- BEE COMPLIANT
- % BLACK OWNERSHIP
- % WOMEN OWNERSHIP

URBAN MANAGEMENT

SUMMARY (8) (1) (0) (0)

- PLANS FOR URBAN MANAGEMENT
- PART OF THE MUNICIPAL UMP
- FINANCIAL CAPACITY OF THE MUNICIPALITY
- INSTITUTIONAL CAPACITY OF THE MUNICIPALITY
- BUILDING MAINTENANCE PLAN
- BENEFICIARY EDUCATION
- PRECINCT MAINTENANCE PLAN
- FINANCIAL CAPACITY (PMP)
- INSTITUTIONAL CAPACITY (PMP)

CONCEPTUALIZED BY THE MONITORING & EVALUATION, KNOWLEDGE MANAGEMENT AND RESEARCH PLANNING UNIT
 DATE: 30TH MARCH 2020
 QUERIES: Raeesa.Ghooor@thehda.co.za

3 0 1 1

OVERVIEW

Risk	<ul style="list-style-type: none"> - Housing opportunities may not be linked to beneficiaries and title deeds - There is a need to ascertain whether the densities created conform to the standards. - There is a need to ascertain whether the housing yield is addressing the housing need as identified in the NHNR
Mitigations	<ul style="list-style-type: none"> - Relationships need to be established with deeds office, project and construction management (HDA, 2019-2021). - In planning, incorporate the National Housing Needs Register to identify beneficiaries (HDA, 2019-2021) - Refer to benchmarks for density standards.

9 0 0 11

LAND VALUE-ADD [EXISTING]

Risk	<ul style="list-style-type: none"> - Some access to services and amenities are not currently available (See red flags).
Mitigations	<ul style="list-style-type: none"> - Consider accessibility to amenities by different modes of transport. - Consider distance when planning amenities that are needed (refer to benchmark documents)

13 0 0 7

INTEGRATION [PLANNED]

Risk	<ul style="list-style-type: none"> - Not all amenities cater for the population need (current and development increase) in the area.
Mitigations	<ul style="list-style-type: none"> - Consider the population size (both current and increase) when planning and designing the project. - Make sure layout plans design and plan for supportive amenities and services - Consult with various stakeholders sector departments to influence their plans and investments based on housing intervention. In planning, province and local government to align planning and budget and liaise with sector departments and SOEs regarding implementation (HDA, 2019-2021).

7 0 0 4

SOCIO-ECONOMIC DEVELOPMENT

Risk	<ul style="list-style-type: none"> - SMMEs and informal trading may lack enough sites - May need more mixed land use sites
Mitigations	<ul style="list-style-type: none"> - Encourage stands and spaces for SMMEs, informal trading and mixed land uses. - Consider stands for socio-economic activities when designing project layout plans

HS TRANSFORMATION SCORECARD

17 0 0 0

Risk	<ul style="list-style-type: none"> - Potential risk of untransformed procurement.
Mitigations	<ul style="list-style-type: none"> - Once procurement begins encourage transformation compliance when acquiring developers, suppliers and contractors - SMME training is required (HDA, 2019-2021). - NHBC to undertake inspection of contractors to ensure enrolment (ibid). In addition, NHBC and other stakeholders to monitor milestones of delivery (HDA, 2019- 2021).

8 1 0 0

URBAN MANAGEMENT

Risk	<ul style="list-style-type: none"> - No evidence of urban management plans
Mitigations	<ul style="list-style-type: none"> - HDA needs to establish an "IRDP Urban Management and Maintenance Fund" as a "central cog to enabling a dedicate funding arrangement and allocation of funds" (HDA, 2017c: 62). - HDA needs to run dedicated "beneficiary awareness and education campaigns" on asset value throughout the life-cycle of a project and post tenancy (HDA, 2017c: 59). - "Encourage municipalities to mobilize communities to create urban management plans" (HDA, 2019- 2021).

4 0 0 0

QUALITY

Risk	<ul style="list-style-type: none"> - The project may not be introducing innovative technologies such as solar panels, water harvesting etc.
Mitigations	<ul style="list-style-type: none"> - Encourage municipalities need "to plan, design and incorporate environmental sustainability elements in HS projects" (HDA, 2019-2021). - Encourage developer "to innovate and provide alternative typologies and technologies whilst creating awareness to the public" (HDA, 2019-2021).

SPATIAL TRANSFORMATION BASELINE

PDA: PORT ST JOHNS, PORT ST JOHNS LOCAL MUNICIPALITY

OVERVIEW

CURRENT PROJECTS IN THE PDA:

-3 UISP PROJECTS

TBC ENVISIONED HOUSING YIELD

67% DEVELOPABLE LAND

TBC CURRENT DENSITY UNITS/HA

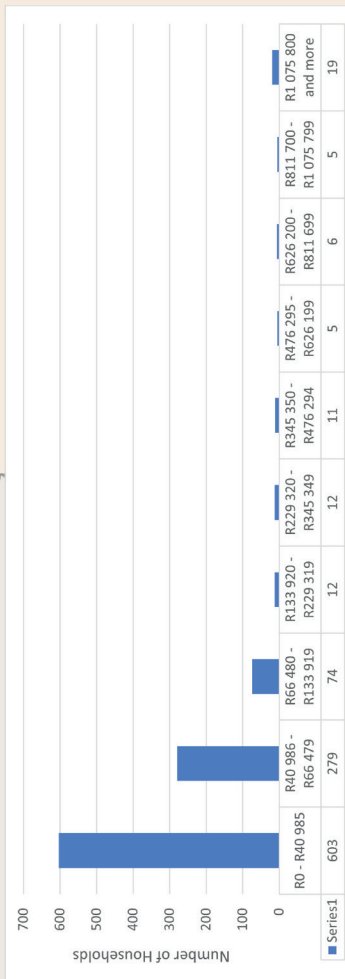
407HA LAND SIZE PDA (HA)

1126 CURRENT RESIDENTIAL UNITS

- ENVISIONED HOUSING YIELD (HOUSING NEED)
- BREAKDOWN OF HH OPPORTUNITIES (TYPOLOGY)
- HH OPP = BENEFICIARIES = TITLE DEEDS (FIN YEAR)
- DENSITY (ANALYSIS)
- TRANSVERSAL ALIGNMENT (ANALYSIS)
- DEVELOPABLE LAND

SOCIO-ECONOMICS

ANNUAL HOUSEHOLD INCOME OF PDA



TOTAL POPULATION: 2438

INFRASTRUCTURE

WATER AND SEWER

- 27.88% FLUSH TOILETS IN THEIR HOMES
- 9.53% ACCESS TO FLUSH TOILET
- 14.21% CHEMICAL TOILETS
- 1.22% PIT/LATERINE WITH VENTILATION
- 21.23% PIT/LATERINE WITHOUT VENTILATION
- 2.29% BUCKET SYSTEM
- 5.56% OTHER

ELECTRICITY

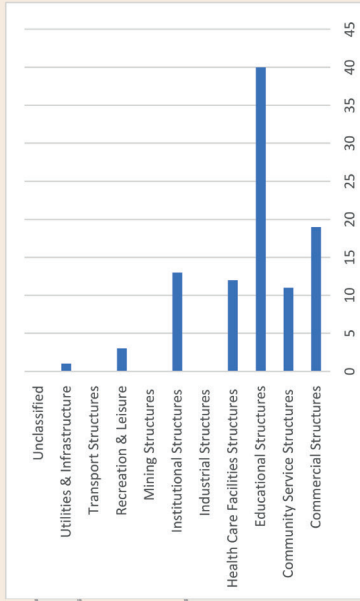
- 71.34% ELECTRICITY ACCESS
- 20.58% CANDLES
- 6.03% PARAFFIN
- 1.65% SOLAR
- 0.29% NONE
- 0.30% GAS

ROAD INFRASTRUCTURE

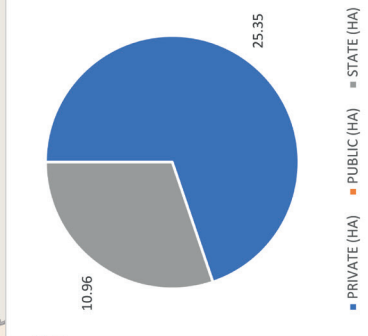
TBC THE AREA HAS TRANSPORT INFRASTRUCTURE CONNECTED TO SOCIAL AMENITIES

MIXED LAND USE

NUMBER OF NON-RESIDENTIAL STRUCTURES



VACANT LAND OWNERSHIP



AMENITIES AND SERVICES

MEASURED FOR CURRENT POPULATION

EDUCATIONAL AMENITIES

- EARLY CHILDHOOD DEVELOPMENT CENTRES
- PRIMARY SCHOOL
- SECONDARY SCHOOL
- TERTIARY FACILITY
- HEALTH AMENITIES

- PRIMARY HEALTH CARE CLINICS
- COMMUNITY HEALTH CENTRES
- CULTURAL AMENITIES

- LIBRARY
- COMMUNITY HALLS [COMMUNITY CENTRES]

CIVIC SERVICES

- DEPARTMENT OF HOME AFFAIRS

DEPARTMENT OF LABOUR

- DEPARTMENT OF SOCIAL DEVELOPMENT

SASSA

- SOCIAL GRANT PAY POINTS

MULTI-PURPOSE CENTRES

- SECURITY AND EMERGENCY SERVICES

POLICE STATION

- FIRE STATION [HIGH RISK AND CBD]

FIRE STATION [SUBURBAN BRICK]

- SOCIAL SERVICES

HOME FOR THE AGED

- CHILD AND YOUTH CARE FACILITIES

COMMUNICATION SERVICES

- POST OFFICES/ POSTAL AGENCIES/ PO BOXES

ICT ACCESS HUBS/ INFORMATION CENTRES

TRANSPORT NETWORKS & NMT

0 SUBURBS SERVED BY TRANSPORT STATIONS

- PUBLIC MODES OF TRANSPORT
- NMT [WALKWAYS/CYCLE LANES]

CONCEPTUALIZED BY THE MONITORING & EVALUATION, KNOWLEDGE MANAGEMENT AND RESEARCH PLANNING UNIT
DATE: 31ST MARCH 2021
QUERIES: Reesa.Ghooor@thehda.co.za



Reasonable care has been taken in the preparation of this report. The information contained herein has been derived from sources believed to be accurate and reliable. The Housing Development Agency does not assume responsibility for any error, omission or opinion contained herein, including but not limited to any decisions made based on the content of this report.

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04 Kikuyu Road,
Sunninghill, Johannesburg,
South Africa, 2157
Tel: +27 11 544 1000
Fax: +27 11 544 1006/7
www.thehda.co.za