Fact Sheet

Population Dynamics and the Labour Market

Under Research Focus 2 working with higher-level economic demographics, HSRC's work for STEPSA is developing new products for **testing high-level national spatial planning interventions and policy assumptions.** Together with the STEPSA data work by CSIR, HSRC's results address how the spatial structure of the major cities works for the in-migrant poverty population trying to find **access to the national economy through the labour market.** Findings suggest that some of the fundamental assumptions underlying spatial planning work in South Africa might benefit from a new review.

STEPSA findings start to look at where rural/urban migration goes to within the urban zone, and the implications for delivery policy. With a focus on comparative core/periphery relations, HSRC's key product for the zonal analysis of city structure is the **spatial employment/ income/ migration gradients** tool; an instrument for assessing labour market outcomes at household level.

The Structure of the Cities for Poverty-Level In-Migration:

Results describe the spatial structure of the main cities in terms of migration-related zones and migration-related economic outcomes at household level. Results indicate that:

(i) ***Not all South African cities are the same*** in their labour market-related spatial dynamics

(ii) ***Spatial delivery policy may perhaps need to be structured from the ground up*** using close-focus spatial datasets, as much as through top-level policy.

Defining the cities' zone structure identifies where in the city new human settlements can best be located for the optimal economic outcomes in poor in-migrant households, emphasizing **unemployed youth** and **women with families.**

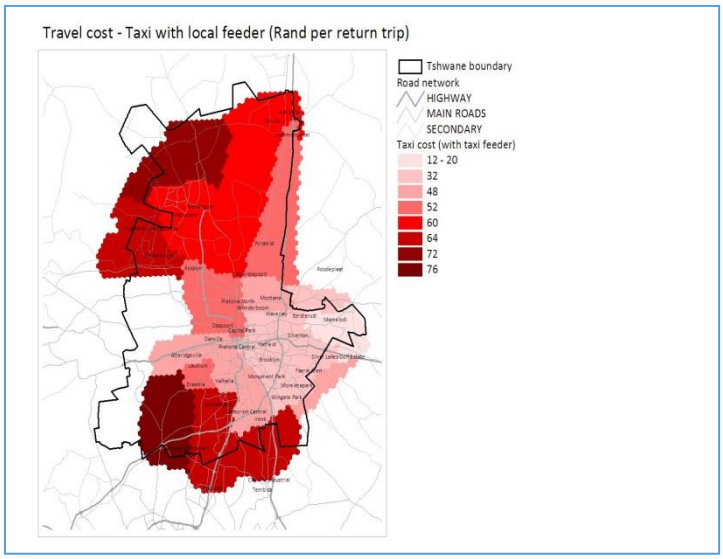

Figure 1: TRANSPORT ENVELOPES: NET WAGE AFTER COMMUTE (NWAC) = Potential day wage earnable at a specific job location, subtracting the time and money to get there from home so as to approximate the potential take-home pay earnable at the job's location. NWAC values can be calculated for travel FROM any given settlement location, TO all potential job locations in order to compare the accessibility profiles of different settlements and planned settlement locations

The spatial employment/ income/ migration gradients reflect **how well the city core zone provides employment and income** to the informal population in shack-type accommodation, compared to the urban periphery zones. City by city, using employment rates, per capita income, and the latest available migration rates, this work **measures how tightly these indicators align to the economic and demographic pull of the metro core zones.**

The spatial gradients define the zonal structure of each major city in terms of the strength of its core attraction as the key urban sorting force; results show how effectively the rural-born in-migrant population is inserted into the spatial city, and how this insertion varies from one South African city to the next.

For in-migrants in the prevailing economy, ***not all of South Africa's large cities appear to be providing employment effectively in their core zones***. Findings suggest that for all South Africa's urban centres averaged together, for the in-migrant poor **the economic pull of the periphery aligning the indicators tends to be stronger than the pull of the core.** It appears that the city core zones can still often perform well for the working poor and settled middle classes in the townships and backyards, who are already urban economy participants, but this does not seem to hold true for the in-migrant shacks population.

Figures 1-4

METRO CITIES SPATIAL GRADIENT OUTCOMES SUMMARY, SHACK SETTLEMENT AREAS

Colour intensity scales with per capita income to indicate returns to migration.

Spatial distance from urban centre point appears on upper vertical axis.

Per capita income on lower vertical axis.

Unemployment level on right horizontal axis.

Migration rate 1996-2001 on left horizontal axis

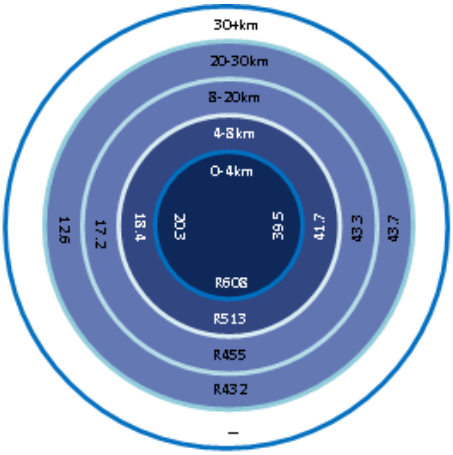

Figure 1: *Ekhurhuleni Spatial Gradient*

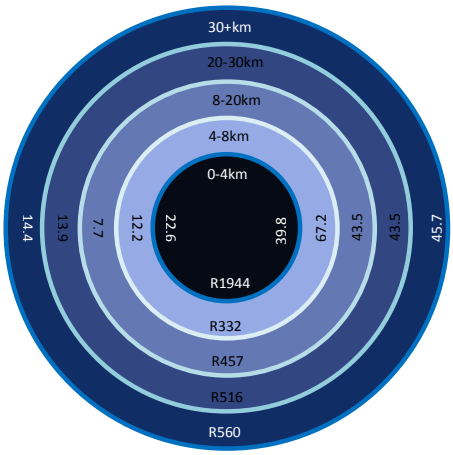

Figure 2*: Johannesburg Spatial Gradient.*

Where core-zone job creation is effective for rural-born in-migrants, metric measures of household per capita income in the shack settlements scale closely together with percentage of adults employed and with rates of in-migration (Figures 1-4), highest at the core and lowest on the outer peripheries. Where the **city labour market is not providing jobs effectively, the spatial gradient flattens out** and the coherence of employment levels, household income and in-migration falls apart.

Value Added From Stepsa Spatial Demographics:

Apparent trends suggest that wherever the in-migrating population is not drawn into a strong city core economy, the **default option** is probably for the relatively weaker economic force of the **periphery to start to exert a dominating pull at higher and higher levels of the income distribution**, working upward from the impoverished shacks communities to the relatively well-off townships. For example, Ekurhuleni (Figure 1) as a very high-migration metro shows a relatively perfect employment/ income/ migration gradient, drawing in high rural-origin migration with core-zone opportunities: Ekurhuleni is a polycentric metro with no single CBD to resist in-migration to its GIS-designated core, and no other city reflects as strong a result. In many **smaller urban centres where core zone activity is weak, the gradient reverses**, and the economic activity on the urban periphery produces better household outcomes (for instance, Map 3, Buffalo City).

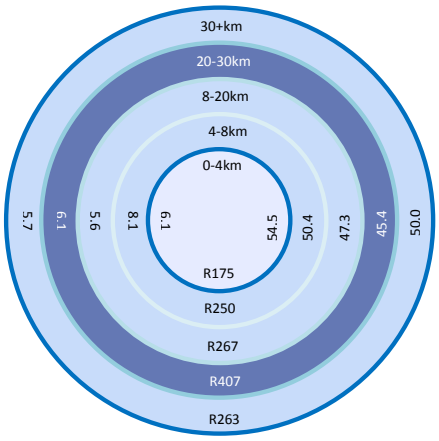

Figure 3: *Buffalo City Spatial Gradient*

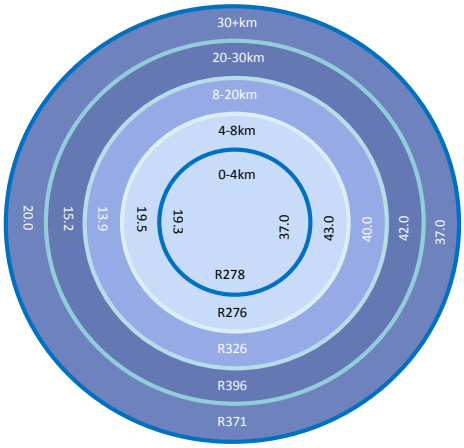

Figure 4: *National Spatial Gradient*

For the entire country, **results for the South African national gradient reflect a reverse-gradient pattern** similar to that for Buffalo City. Averaged across all local municipalities (Map 5), in a weak economy the national STEPSA results for **household economic outcomes looked better on the urban periphery than in the urban core zones.**

Policy and Planning Impacts:

It looks as if **all the cities are individual in their gradients**; if so, overarching delivery policies may not be simple to frame. In the current fragile economy, redirecting migration from the periphery to the core appears unlikely to work effectively for the in-migrant rural poor in most of the metro cities, and on average not nationally.

In working with the tension between overloaded core zones and lower job concentrations at the periphery, for some cities it may be possible to implement Outcome 8 planning by bringing a

higher share of the rural-born unemployed into the central city zone. However, for most South African cities, results suggest that this **outcome may be in doubt until the economy improves**; if so, finding the right local interpretation of Cabinet's Outcome 8 for each city may be important. Work with Financial and Fiscal Commission in this area is currently in progress.

StepSA's relevant tech products as spatial planning measurement tools include:

DEMOGRAPHIC SETTLEMENT TYPOLOGY	**Analytic segmentation of migration stream + urban/ rural settlements, using housing type and economic demographics**	**V 1, 2009; V 7, 2013**
DELIVERY DEMAND POSTER CHART	Wall poster giving metric basic planning data for poor settlements by settlement type, customized for each SA municipality	2012
I-M-E SPATIAL GRADIENTS, SHACKS, TOWNSHIPS AND BACKYARDS	City zone diagrams showing relation of per capita income, migration rates and employment levels, for all SA municipalities	2012
JOBS ACCESS SPATIAL QUOTIENT (JASQ)	Distance-based score for estimation of income earning viability for any planned urban subsidy settlement location	2013
INTERVENTION MONITOR, ZONE IMPACT (MZI-I)	Methodology for estimating impact of delivery and planning on per capita income, by urban distance zone, for shacks, townships, backyards	2013
NATIONAL MIGRATION AND HOUSING SURVEY DATABASE	Data resource on housing at each migration stop for 5912 household case records, incl distribution of owner-built decent housing	2013

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