

What is well-located land? Spatializing the city for Outcome 8 delivery

Introduction

The release of the National Development Plan (NDP 2010 2011) has increased South Africa's focus on spatial planning. Perhaps the highest priority for spatial planning is delivering the right places to bring the in-migrant poor inside the developed urban economy.

Government's Outcome 8 delivery targets call for upgrading 400 000 households in informal settlements that are on well-located land. This term refers to land with close access to the city core zones, in terms of urban compaction principles: however, so far it has not been possible to develop a clear definition of what well-located actually means in relation to Outcome 8, and the Delivery Agreement contains no such definition.

Where then are the best places to locate low-income housing and human settlements, for spatial planning at city level? From the StepSA (Spatial-Temporal Evidence for Planning South Africa) spatial planning research project, which is a collaboration of Human Sciences Research Council (HSRC), Council for Scientific and Industrial Research (CSIR) and Department of Science and Technology (DST), this policy note addresses the question of what and where is well located land: what can the distribution of residential types tell for Outcome 8 implementation, and where can upgrading best be applied?

For effective spatial planning of human settlement, it may be necessary to plan not only for urban localities, but outward across the whole migration system into the rural sector. Defining the zone structure of cities and towns broadly identifies where in new human settlements can best be located, and where the best opportunities for successful upgrading are located¹.

¹ This Policy Note offers insights into what represents well-located land for the shacks population in line for upgrading, based on the StepSA's spatial-economics settlement typology and distance zones delimitation: it should be read together with HSRC Policy Note 1, which shows where in the zone structure of the metro cities the most favourable household economic outcomes are located, based on StepSA's IEM spatial gradients.



Functionality: The cities and the rural sector

All cities provide different kinds of settlement functionality at different points inside and outside the urban core. These different kinds of shelter are occupied by differing types of household looking to maximize their livelihoods: one spot does not fit all. Perhaps the key functional distinction is between the rental housing types, temporary shelter which serves an unstable population with high residential turnover, and the types of permanent, owned housing that are occupied by settled shack families that are good candidates for upgrading.

Upgrading potential differs by the size of the urban centre, in terms of the spatial hierarchy of settlement. Three distinct sequences of settlement zones can be identified, stretching out from the major metros across the mid-sized cities to the smaller rural towns (Table 1).

Structure of settlement

Table 1 gives a snapshot of the structure of settlement across all sizes of cities and towns, based on StepSA's 2008/2010 survey data, using HSRC's settlement typology and geographic information system (GIS) zone delimitation. Each settlement type tends to appear in certain specific positions in the zone sequence, but these sequences are not the same for smaller and larger centres: for instance, the intensely urbanized 0-4 kilometer zone around the metro Central Business Districts (CBD) is different from the 0-4 kilometer zones for the smaller towns, which may include rural land uses.

Table 1: Upgrading potential in the space economy: the demographic distance zones by settlement type

Distribution by columns of major settlement categories, by distance from urban centre point
 * indicates 1-1.9%, - indicates < 1 percent

<i>Major metro cities: sequence of distance zones by settlement</i>					
<i>Settlement type</i>	<i>0-4km</i>	<i>4-8km</i>	<i>8-20km</i>	<i>20-30km</i>	<i>30+kilometer</i>
Old traditional	-	*	*	2	5
All self-developmnt	-	-	-	-	-
All formal townships	*	17	33	38	29
All shack settlemts	10	26	15	20	15
All subsidy housing	-	*	*	4	8
All backyard housing	-	3	3	7	7
All non-traditional village	-	11	*	3	-
All rental housing	84	39	41	11	14
Other	6	4	8	15	22

<i>Other metros & secondary cities: sequence of distance zones by settlement</i>				
<i>Settlement type</i>	<i>0-4km</i>	<i>4-8km</i>	<i>8-20km</i>	<i>20+kilometer</i>
Old traditional	*	2	5	7
All self-development	-	-	-	-
All formal townships	22	36	40	50
All shack settlemnts	36	21	25	7
All subsidy housing	-	8	4	7
All backyard housing	5	5	3	5
All non-traditional village	*	3	2	*
All rental housing	35	16	15	4
Other	2	8	5	20

<i>Large and small towns: sequence of distance zones by settlement</i>			
<i>Settlement type</i>	<i>0-8km</i>	<i>8-20km</i>	<i>20+kilometer</i>
Old traditional	7	27	39
All self-development	18	31	37
All formal townships	33	9	4
All shack settlemnts	13	6	3
All subsidy housing	8	9	3
All backyard housing	5	3	*
All non-traditional village	-	11	6
All rental housing	*	2	7
Other	8	2	*

Table 1 shows how the poverty-related zone structure of the cities changes, with the demographic pressure on space for settlement exerting sorting force: the large metros are intensely differentiated, while zone differentiation declines progressively as urban centres become smaller, with less space pressure and less population turnover. Panel 1 at the top of Table 1 shows the metro cities with five settlement zones: the innermost zone is entirely occupied by rentals and shacks, both temporary occupation types with rapid turnover that respond to pressure on space. This innermost zone has dropped out of the four-zone sequence in the secondary cities (Panel 2), as private rentals decline to 35 percent, falling behind shacks in the zone closest to the core. The zone sequence moves inward as a result of one less zone appearing; however, the representation of settlement types in the outer zones (flagged red) still closely resembles the outer zones of the main metros, with predominant formal townships and shack areas.



At the rural end of the national distribution (Panel 3, at bottom), urban sorting force is slight, so that the smaller towns look quite different, with only three zones identifiable. With very low pressure on space and low residential turnover, rentals all but disappear, and shacks decline to a relatively low percentage, at 13 percent in the zone around the core. The outer zones (flagged blue) are now dominated by self-development areas and old traditional settlement, instead of by formal townships and informal shacks. Outside the towns, as old traditional settlement takes over from modern self-development areas the force exerted by the metro cities dissipates, and a de facto transition from the urban-driven zone sequence to a relatively undifferentiated rural settlement structure appears to take place. In summary:

- **The metro cities:** For the majority poor African population in the largest cities, high-priced private rentals dominate inside the metro inner-core zone at over 85%: the only other recorded core-zone settlement type is a small share of shack-level housing. Moving outward, shack housing peaks in the outer core at 26 %, but does not overtake private rentals until the 20-kilometer metro zone is reached and land values drop off. The main shack population is on the peripheries.
- **The mid-size cities:** In the secondary cities, all the zones move closer in to the core (see Table 1). At an average 22% per zone, shack housing becomes more common overall than private rentals against 18%, and shacks concentrate in the innermost zone. The formal townships also move closer to the core, and subsidy housing becomes a more significant percent of poverty-level shelter.
- **The smaller towns:** Private rentals as elite temporary housing drop away entirely, and the core is occupied by formal townships, self-development, and shack areas. Table 1 shows new self-development areas with modern-style owner-built housing predominant outside the core, grading with distance into old-style traditional settlement. Shacks as informal temporary housing average only 7% per zone, replaced by informal permanent housing in the self-development areas at an average 29% per zone.

Well-located land?

South Africa's upgrading task addresses shack settlement, but not all shacks are the same. Nation-wide, shack housing is associated with high-demand areas where the poor cannot get legal tenure. Table 2 illustrates how the temporary/ rental settlement types – which include the up-market formal private rentals and the informal ultra-low-priced shack areas – are the predominant inner settlement mode of the large cities, which are the areas prioritized under Outcome 8. Core-zone short-term housing serves the metro mobile urban youth population, and upgrading potential for the shacks in these zones may be doubtful.



Table 2: Well-located land: upgrading potential of shack settlements by urban location

<i>Urban hierarchy</i>	<i>Core zone</i>	<i>Mid-city</i>	<i>Periphery</i>
Major metros	Low: unstable rental population, rapid shack turnover	Medium: fewer shacks, more backyard housing	High: large, stable residential shack population
Mid-size cities	Medium: large semi-stable shack population	High: large relatively stable shack population + backyards	Low: shack population is small and formal township housing predominates
Smaller towns	High: relatively stable shack population	Low: few shacks, stable informal population in permanent owner-built housing	Low: few shacks, stable informal population in permanent owner-built housing

In the central metro zone, there is acute competition for high-priced land, and these areas are characterized by fast turnover of population. To upgrade these inner-zone shacks into permanent residential shelter is likely to represent swimming against the tide: the youth population that inhabits these zones normally expects to move in and move out again. This grouping is not usually ready to settle in permanent housing till family formation takes place.

Instead, the periphery zone carries most of the metro shack population, and often provides income levels competitive with the core, or better (see Policy Note 2). The metro periphery shacks support a somewhat older, residential population anxious for upgrading and tenure security: this population is large and relatively stable. In this light, the metro periphery zones' upgrading potential is high because of the acute need for permanent residential housing for present shack residents.

The opposite is likely to be true of the smaller towns. In the rural sector, the shack population is relatively smaller, demand for space is not as strong, and spatial functionality is not as strongly differentiated by the force of demand. Without significant private rentals, shack housing moves inward into the core zones in significant numbers; at the periphery of the smaller towns, shacks are replaced by permanent informal housing in self-development settlements. This relatively small shack population is concentrated in and close to the core zones of the towns, though it extends onto traditional land. At the town end, it may often be able to upgrade in place, for long-term residential utility. This leaves the core zones of the rural towns as their best located land for upgrading.

Finally, the largest shack concentrations, as a percentage of all poverty-related housing, appear in the secondary cities, located inside the 8-20 kilometer zone (Table 1). This population appears to be relatively stable, fed by inflows from the formal townships as well as rural-to-urban migration. In this light, the secondary cities will represent a strong priority for upgrading, and may compete with the major metros for upgrading resources.

Sources consulted

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Policy Note

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