THE IMPACT OF THE TRANSITION FROM INFORMAL HOUSING TO FORMALIZED HOUSING IN LOW-INCOME HOUSING PROJECTS IN SOUTH AFRICA

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When informal settlements are upgraded or residents of informal settlements relocate to a new housing project there are a variety of changes on the lives of residents as a result of the formalization process. This paper examines the impact on residents of the transition from informal settlements to formalized housing areas, using case studies in Durban and Cape Town as examples. Many of the changes caused by formalization are positive; some of the changes are negative, however, and can further disadvantage the poor. One view, for example, is that the housing formalization currently occurring in South Africa "reinforces the marginalization and stigmatization of the poor" (Bond and Tait, 1997: 28).

First of all, the housing policy environment in South Africa is briefly looked at. Secondly, the case studies are introduced. Thirdly, the impacts of formalization in terms of basic infrastructure, the dwelling, tenure, affordability, access to urban opportunities and social, economic and environmental factors are then examined. Finally, the reasons for the mixed impact of housing formalization are discussed and ways towards improving housing formalization processes are suggested.

South African housing policy and delivery

The process of housing formalization in South Africa is taking place within a context of widespread poverty. The 1996 census showed an unemployment rate of 34%, and an estimated 39% of the population have less than the minimum recommended nutritional intake of 2000 kcal per day (Statistics SA, 1998: 2.30; PSLSD, cited in May, 1998: 117). Inadequate housing conditions are an important component of this widespread poverty. In 1994, the urban housing backlog was estimated as 1.5 million inadequately housed households, and this was estimated to be increasing by 178 000 households per year (Department of Housing, 1994). These households cannot afford to access adequate housing on their own and need government support to acquire adequate housing. The provision of adequate housing is essentially a process of formalization as it transforms the residents of unregulated informal settlements into rate-paying residents of planned and regulated formal areas. On one level, formalization is about providing the basic requirements for health and safety, which can only be effectively done within the context of

formal housing in which there is planned layout and certain regulations. On another level, formalization is about bringing marginalized people into mainstream urban society. This process has been described as burying the "foul smelling haven of gangsters, *shebeen* owners, street children and prostitutes" beneath an image of "tarred roads, grassed front lawns, clean shopping malls, laughing children walking safely to school" (Swilling et al, 1998: 16).

The Housing Act of 1997 commits the South African government to a housing formalization programme consisting of "the establishment and maintenance of habitable, stable and sustainable public and private residential environments to ensure viable households and communities in areas allowing convenient access to economic opportunities, and to health, educational and social amenities in which all citizens and permanent residents of the Republic of South Africa will have, on a progressive basis, access to:

- permanent residential structures with secure tenure, ensuring internal and external privacy and providing adequate protection against the elements
- potable water, adequate sanitary facilities and domestic energy supply".

The housing subsidy scheme, introduced in 1994-1995, is the key instrument of implementing these objectives. The housing subsidy scheme provides one-off capital subsidies to enable households who have not previously owned property to get access to housing. The subsidy amount was initially set at R15000 for households with incomes of below R1500 p.m., and was increased to R16000 in 1999; households with incomes of R1501-R3500 p.m. qualify for smaller subsidies. The subsidy amount can be increased by 15% for difficult site conditions. The subsidy amount was usually enough to be able to provide a one or two room "core house" on a plot, with a piped in-house water supply, waterborne sewerage and electricity.

Developers, who could be a private sector company, local authority or non-governmental organization, can make applications to a Provincial Housing Development Board for housing subsidies on behalf of beneficiaries who meet the eligibility criteria. After approval of the subsidies, the project is implemented by the developer, and the subsidy money is paid out to the developer in tranches on completion of certain stages.

The housing subsidy is used for the cost of land, professional fees, providing infrastructure within the project boundary and for building core houses. The local authority is responsible for providing bulk infrastructure, which involves linking up the infrastructure network within the project area to the broader infrastructure network. Local authorities can apply to the Department of Provincial and Local Government for subsidies of up to R3000 per housing unit for providing bulk infrastructure.

From 1994 to October 1999, housing subsidies for 1.17 million households were approved and 920 000 housing units were completed (Department of Housing, 1999). The subsidy amount has been steadily eroded by inflation,

however - the real value of the maximum subsidy in mid-1999 was almost 20% less than it had been in mid-1995. There has also recently been a shift in government regulations towards larger houses and lower infrastructure standards.

Case studies

Case studies from Durban and Cape Town will be used to illustrate some of the impacts of formalization. From Durban, a comparison of the informal settlement of Smithfield and the new housing project of Waterloo will be used. From Cape Town, the relocation of households from the Marconi Beam informal settlement to the adjacent new housing project of Joe Slovo Park will be used as a case study. Some references to other examples will also be made when necessary.

Smithfield in Durban is a small informal settlement of about 100 households on a piece of vacant public land between the middle-income suburbs of Kenville and Sea Cow Lake (it is one of a large number of informal settlements on steep slopes along the N2 freeway). The local authority has provided a communal standpipe and it is intended that the settlement will be developed in the near future once housing subsidy funds become available. For some of the residents of Smithfield, and other similar informal settlements, it is possible that they may have to relocate to one of the large new housing projects on the urban periphery, such as Waterloo. Waterloo is a 4500 unit development located about 30 km north of the city centre. Waterloo is intended to be a formalized area with no shacks or informal extensions. In 1999, the Built Environment Support Group undertook an evaluation of informal settlements and new housing projects in Durban which included Smithfield and Waterloo, where 93 and 102 households respectively were visited and interviewed.

The informal settlement of Marconi Beam in Cape Town started off as settlement of the families of migrant workers who worked at the Milnerton horse racing course, who settled on a piece of vacant land between the suburb of Milnerton and the industrial area of Montagu Gardens. By the mid-1990s the informal settlement had a population of about 1500 households. A new housing project of 1000 houses adjacent to the informal settlement, Joe Slovo Park, was completed in 1997. The majority of the residents were relocated to Joe Slovo Park, and some were relocated to the peripheral settlement of Du Noon. Joe Slovo Park is a well located area 8 km from the Cape Town city centre and the local authority is very strict on building regulations being followed and about no informal extensions being built. In-depth interviews with residents of the Marconi Beam informal settlement and Joe Slovo Park were undertaken in 1997-1999 by a social anthropologist as part of a research project on behalf of the Development Action Group.

The cases cited are, in many respects, extreme examples of the effects of formalization, but they differ from the norm only by degree. Many of the same

features can be observed in the formalization process in other housing projects in the large cities of South Africa. In many housing projects, the benefits may greatly outweigh the disadvantages for the majority of residents, but it cannot be denied that many households, usually the most vulnerable, are further disadvantaged by formalization in certain ways.

Effects of formalization

Only by understanding the variety of impacts that formalization can have, can we begin to find ways of dealing with development in a more responsive and flexible manner. The effects of the formalization of housing need to be measured against a definition of what the provision of adequate housing is meant to achieve. The most widely accepted definition of adequate housing is that of the Habitat Agenda. Article 60 of the Habitat Agenda states that: "adequate housing means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste management facilities; suitable environmental quality and health related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost. Adequacy should be determined together with the people concerned, bearing in mind the prospect for gradual development. Adequacy often varies from country to country, since it depends on specific cultural, social, environmental and economic factors."

Leading on from this definition of adequate housing, there are a few key areas that can be identified for more detailed evaluation of the impact of formalization:

- Basic infrastructure: access to basic services such as water supply, sanitation, roads, stormwater drainage and energy supply
- Dwelling: indoor space and protection from the elements
- Tenure
- Affordability
- Access to urban opportunities, such as employment and education
- Social and cultural factors
- Economic factors
- Environmental factors

Basic infrastructure

The basic infrastructure provided in housing projects usually consists of water supply and sanitation, roads, stormwater drainage and electricity.

Water supply and sanitation

The provision of basic infrastructure such as water supply and sanitation is

usually one of the key objectives of housing projects. Government policy is to provide a clean, safe water supply of at least 25 litres per capita per day and a safe sanitation system per household.

Informal settlements generally have inadequate water supply and sanitation. For example, Smithfield had only one communal tap, which was some distance away from the settlement, and which was only opened by the water bailiff for 2 hours in the morning and 2 hours in the late afternoon. The toilets consisted of pits with rudimentary structures erected over them, and generally smelled bad, attracted flies and were hazardous for small children. They were also sometimes positioned inappropriately close to other shacks. In addition, in many areas people are afraid to use the toilet at night (Smit, 1999). As an example of the high levels of dissatisfaction, 87% of households in Smithfield were dissatisfied with their water supply and 86% were dissatisfied with their sanitation (BESG, 1999).

Inadequate water supply and sanitation are strongly linked to a variety of illnesses, especially diarrhoea. Diarrhoea is the leading cause of death in most areas of South Africa for children aged 1-5 (Seager et al, 1998: 175). Households storing water are 4.6 times more likely to have diarrhoea than those who do not have to store water (Thomas, 1998: 16). Having to collect water can also be very inconvenient and time consuming, especially for women - usually more than 80% of the time spent on water collection is by women (Nduli, cited in May, 1998: 43).

The provision of adequate water supply and sanitation can make life considerably easier for residents and can dramatically improve health conditions. Having taps inside the house eliminates health risks associated with storing water and reduces the amount of time required in fetching water from a communal tap. This can lead also to more time for child care and for income generation activities. It is estimated that providing adequate water and sanitation can reduce diarrhoea morbidity rates by up to 46% and there are strong linkages between improved water supply and sanitation and significant improvement in the nutritional status of children (Bond et al, 1998; Seager et al, 1998). In contrast to the high levels of dissatisfaction in Smithfield, 65% of residents in Waterloo were satisfied with their water supply and 69% were satisfied with their sanitation (BESG, 1999).

In all, then, the provision of adequate water supply and sanitation is one area in which the lives of residents undeniably changes for the better, although there may be some problems with maintenance. For example, in Waterloo, some households were not satisfied with their new water supply and sanitation because of low water pressure, leaking water tanks, leaking or blocked toilets, and broken ball valves. The South African government's new guidelines for subsidized housing favour a lower level of infrastructure (ventilated improved pit latrines and yard taps) than has generally been the norm up to now, however, which may decrease the most significant benefits of formalization.

Roads and stormwater drainage

The lack of proper roads and stormwater drainage are a major inconvenience and hazard in informal settlements. For example, 66% of respondents in Smithfield listed the area becoming muddy after rain as a major problem, because of the difficulty in walking up and down the steep slopes (BESG, 1999).

In new housing projects the provision of roads and stormwater drainage usually greatly improve access within the area, for example, for emergency vehicles and refuse removal trucks, and some drainage problems are removed. The provision of roads and stormwater drainage is not without its problems, however. Housing development results in an increase in impermeable surface area, which increases stormwater run-off and can increase the risk of flooding. Disturbance of natural drainage patterns can also result in increased risk of flooding. New housing projects in Durban commonly turn into quagmires in the rainy season, and residents have to erect wooden gangplanks to get from the road to their house. In Waterloo, even on a hot day in the middle of the dry season there were some sites that were permanently waterlogged.

Electricity

Electrification has come to be an integral part of development in South Africa, largely as a result of government subsidization, even though electricity is not necessarily the cheapest or most effective fuel source for all uses – for example, gas is the cheapest and most efficient option for cooking and space heating (Sowman and Urquhart, 1998).

Paraffin is the most commonly used fuel for cooking in informal settlements and candles are commonly used for lighting. Car batteries are sometimes used to power television sets. In some parts of South Africa, coal is commonly used for space heating. There are problems with all of these fuels. Paraffin is often stored in beverage bottles, which can result in accidental poisoning; surveys have shown that up to 6% of people surveyed had experienced paraffin poisoning (Eberhard and Van Horen, 1996: 4). Of the other common energy sources, candles can be a fire hazard, car batteries contain toxic materials and coal braziers can result in carbon monoxide poisoning.

Electrification results in access to a cheaper and safer form of energy. Paraffin can be cheaper than electricity, but if bought in small quantities (as from *spaza* shops) it is usually more expensive. Candles are approximately two times more expensive as a lighting source than electricity, while car batteries are about 60 times more expensive than electricity as a source of energy.

Electrification can have a big impact on small businesses – *spaza* shops can

refrigerate items and small manufacturers can use electric tools. Studies have found that the benefits of electricity for residential purposes are not being fully realized, however, because many households continue to use paraffin lamps and candles for lighting after electrification. In general, electricity “has not yet made a significant contribution to the quality of people’s lives” (Qase, 1997: 6). This is largely because the high costs of using electricity, for example, the appliances and wiring, results in the underutilization of electricity in newly electrified households.

Electricity mainly results in people investing in entertainment appliances such as television sets and hi-fis, and buying refrigerators for storing food (Ward, 1996). Although the ability to refrigerate food reduces diarrhoea it may also be associated with increased use of foods high in fat content, which has a negative health impact (Seager et al, 1998: 176). In general, it has been found that housing development often results in a shift in diet patterns to an atherogenic diet, i.e. one that contributes to cardiovascular disease (ibid).

Dwelling

Dwellings perform two main functions: they provide shelter from the elements and they provide space for family life (eating, sleeping, relaxing, playing, and so on).

Shelter from the elements

Structures in informal settlements can vary from flimsily constructed shacks of wood, corrugated iron and plastic to well constructed buildings of wattle and daub (a wooden frame with earth walling), largely depending on the perceived likelihood of eviction and the availability of building materials.

Flimsily constructed shacks with earth floors are strongly associated with dampness (Thomas, 1998). Although the evidence is contradictory, damp housing can be considered to be a contributory factor to rheumatism, arthritis and respiratory diseases such as pneumonia, bronchitis and upper respiratory infections (Ranson, 1991). 74% of respondents in Smithfield said that water came into their house when it rained; a few said that that the walls of the wattle and daub shacks often collapsed in heavy rains (BESG, 1999). Comments included “the roof leaks”, “there is water coming through the walls”, “the carpet is damp”, “because it is wet it causes the flu” and “[we are] coughing at all times”.

A key objective of new housing projects is to provide “formal” housing, which generally means houses with concrete floor slabs and foundations, concrete block walling and asbestos cement roof sheeting. Part of the reason for the general desire for concrete block houses is that they are seen as “beautiful” and “modern”, whereas wattle and daub houses are seen as rural and “old–fashioned” (Smit and Mbona, 1996: 49). As the new houses are built of more durable materials than the shacks in informal settlements, they usually require

less maintenance and repairing than shacks and there is less risk of fire, which is a common hazard in informal settlements. For example, Marconi Beam had a number of serious fires in its history. The construction of the new houses, the spacing between them, the use of electricity and the provision roads to enable access for emergency vehicles all results in the fire risk being virtually eliminated. As a result, many households are happy with their new houses. For example, 59% of households in Waterloo were generally happy with their houses. As one former resident of an informal settlement said: "Living in your own house is better than living in a shack, where we used to have many fires" (Thurman, 1999: 28).

Even though the housing provided in new housing projects may be better in many respects than the shacks they are replacing, the new housing is still widely perceived as being inadequate. As one local authority official said: "Five years ago we wouldn't have believed we could build such rubbish - houses that are totally technically inferior... single skin blockwork and not suitable to our conditions. Why? Because we don't have an option. The government has a fixation with size, not quality" Thurman, 1999: 30). A report of a new housing project in Umkomaas, south of Durban, after the first rains of the rainy season, was that the "one-roomed, block built 'shacks' provided little protection from the weather. The water simply poured through the walls, or up through the floor and most of the chemical pit toilets overflowed, spewing their contents into the houses... These low-cost units are only a few weeks old, yet most are already displaying structural defects. Few of the plank-pine doors can be opened or closed because of the swelling and warping and the cracks in the walls grow larger and more numerous every day" (McCarthy, 1999). At Waterloo, even though the houses were less than a year old, some of the houses had extensive patches of mould growing on the inside walls as a result of their inadequate orientation, unplastered walls, inadequate roof overhangs and inadequate ventilation.

The Housing Consumer Protection Measures Act of 1998 was promulgated to establish a statutory body to maintain construction standards and to enforce a 5 year guarantee against construction defects in new housing projects. Most of these defects are the result of low standards because of the need to try and build the largest structure possible within the constraint of the subsidy amount, however, and the pressures to build as large a house as possible within the subsidy limits will continue.

Dwelling size

The sizes of shacks in informal settlements can vary greatly, depending upon the number of people in the household, the economic activity undertaken, and whether or not there are tenants.

Despite the emphasis on house size at the expense of quality of construction, the houses in new housing projects are still perceived as being too small. The houses provided in new housing projects usually have only one or two rooms

(although some projects have been able to produce larger houses through the use of additional subsidization or through unpaid labour by members of the household). In Marconi Beam most of the houses were 24-27m^2 in size with two rooms and a combined toilet/shower. In projects such as Waterloo, the minimum house size was 12m^2, with one room and a combined toilet/shower. The problem of the small size of the houses is often compounded by the fact that building regulations apply in formalized areas, and households are not allowed to add on informal extensions.

A study of housing projects in the Western Cape found that about a third of all households' new houses were actually smaller than the shacks they had lived in previously (Thurman, 1999). Similarly the average size of new houses in Waterloo was 20.4 m^2, slightly less than the average shack size of 20.8 m^2 in Smithfield; in addition the toilets/showers in the houses in Waterloo took up almost 3 m^2 of living space. Only 13% of respondents in Waterloo were satisfied with the size of their house (BESG, 1999).

One respondent at Joe Slovo Park said: "[These] houses at Joe Slovo Park are very small. Maybe whoever built them was conveying a message that we should not have more than one or two children. We are being limited to a certain number of children we should have, and must live a lifestyle of father, mother and two kids" (Yose, 1999). As a result of the new houses being so small and because of the strict requirements for extensions, many tenants were left behind without accommodation and even children sometimes had to go live elsewhere. Overcrowding in new houses is not just a source of the breakup of extended families, inconvenience and lack of privacy: there is also a strong link between overcrowding and psychological distress, especially amongst women (Gabe and Williams, 1993).

The government has recently introduced the requirement for a minimum house size of 30m^2 for houses provided with housing subsidies, but there are doubts over whether this is achievable. Only 30% of houses provided with the subsidy thus far have been 30m^2 or more (Minister of Housing, 1999), and this has largely been in inland provinces where site conditions are more suitable and where there has been additional subsidization.

Tenure

Formalization results in increased security of tenure. Ownership is virtually the only form of tenure provided in new housing projects in South Africa. Of housing subsidies approved in 1994-1999, 98% of the subsidies were for individual ownership of a housing unit and only 2% of subsidies were for rental or co-operative tenure options. This is despite the fact that tenure options such as rental facilitate labour mobility, which is an essential survival strategy for many low-income households. Emphasis on ownership also ignores the context of rural-urban migration (Smit, 1998c) and can disadvantage women, as the properties of unmarried couples are usually registered in the man's name.

Ownership is also often poorly understood. A survey of households in low-income settlements in Durban where households owned their own properties found that only 24% of respondents correctly identified the main characteristics of ownership, compared with 67% who correctly identified the key characteristics of rental (Clark et al, 1997). As a result of this lack of understanding, legally owned properties were being sold without following the formal transfer procedures (so that, legally, ownership was not being transferred), and sometimes serviced sites were being abandoned by their owners when they moved elsewhere.

Affordability

Living in informal settlements is cheap. A shack made of corrugated iron, packing case boards, timber, sheet metal, wood, soil or stone can cost less than R2000 to build (Smit and Mbona, 1996). Apart from the cost of the materials for building the structure the only cost may be for water. At Smithfield, for example, 25 litres of water (a standard sized container) cost 25 cents; 100 litres per day, typical water usage for an average size household in informal settlements, cost R30 per month. In many other informal settlements the water supply is free, as at the Marconi Beam informal settlement.

Formalization usually results in having at least one tap inside the house, a shower and a flush toilet. Water usage for a typical household in a new housing project can be 600 litres per day. In Durban, 600 litres of water per day would cost about R20 p.m. for a semi-pressure water connection and in the Blaauwberg Municipality, in which Joe Slovo Park falls, it would cost about R25 p.m. Electrification results in monthly electricity bills that are typically R50 p.m. for a prepaid-meter connection.

Formalization also results in homeowners being billed for rates (property tax). The interim rates per month in Joe Slovo Park in 1998 were R49.25 per month for community services, sewerage and refuse removal. Ultimately, all formalized areas will pay rates as a percentage of the value of the land and building, and there may be additional amounts for sewerage treatment and refuse disposal. In the formal areas of the Oostenberg Municipality in Cape Town, as a typical example, annual rates for 1998/1999 were calculated at up to 4.1% of land value and 1.1% of building value, plus R22.94 per month for sewerage and R19.80 per month for refuse collection. Assuming a R8000 building on a R10000 plot, the monthly rates bill would be R84.24.

Rates and service charges in new housing projects could therefore total over R150 per month, which can represent an enormous burden for former residents of informal settlements, who generally have household incomes of less than R1500 per month, and some of whom may not have any regular income. High levels of non-payment of rates and service charges have resulted in some local authorities introducing “lifeline tariffs” and rates rebates to accommodate poor households. For example, in Durban, the first 6000

litres of water per month is not charged for and rates are not levied by the Durban Central Councils on properties with values of less than R25000.

In addition to charges levied by the local authority, households may also be required to repay loans. Households need to use savings or take out a loan where the cost of the housing unit is more than the subsidy. This would always be the case for households in the R1501-R3500 p.m. income range, who receive smaller housing subsidies. Where homeowners have taken out loans, this imposes a severe financial burden on them as most borrowers have overextended themselves and face serious risk of losing their homes or pension funds (which are used as security for the loans). Instead of government subsidized housing economically empowering beneficiaries it appears that it is often actively disempowering them (Tomlinson, 1996). The housing subsidy scheme was meant to be providing financial assets for low-income households, but in reality there is little secondary market and subsidized houses are often sold for as little as R3000, which is less than 20% of the real value (Lund, 2000).

Home ownership and electrification can also result in a change in expenditure patterns, with more money spent on furniture and appliances and less on basic necessities. For example, many people bought new furniture when they moved into Joe Slovo Park. As an example of how formalization can increase the demand for consumer goods, within a year of the completion of a housing project in KwaMancinza, Durban, one third of households had bought television sets and one sixth had bought refrigerators and stoves (Smit and Mbona, 1996: 24). In general, formalization of housing results in the increased commodification of housing. Whereas in informal settlements, households often build, maintain and upgrade their own dwellings, houses in formal areas usually are built, maintained and upgraded by builders, plumbers and electricians on a monetary basis.

Access to urban opportunities

Adequate residential areas either need to have urban opportunities (such as schools, shops and job opportunities) located within them or be reasonably located in terms of access to such opportunities. Informal settlements are often conveniently located for residents' needs. For example, 96% of respondents in Smithfield were happy with living in the settlement (BESG, 1999). The main reason was its location close to the centre of Durban and the fact there were amenities and job opportunities within walking distance (67% of the reasons people liked living in Smithfield related to location).

By contrast, residents of informal settlements are sometimes forced to relocate to new housing projects that are further out on the edge of the city. Most new housing developments happens on the periphery of cities because this is where land is cheapest and where it is possible to acquire large pieces of land suitable for large projects. Typical comments of residents in Waterloo were "taxis to Durban are scarce" and "there is no transport to work".

Evidence from some other projects indicates that some households have even been forced to move from new housing projects because of the excessive transport costs (Gear, 1999).

Social factors

The social aspects of living in a settlement include:

- social interaction
- social support systems
- community cohesiveness

Social interaction

Informal settlements have organic layouts suited to pedestrians and with communal spaces for social interaction and economic activity; shacks are built fairly closely together, with only footpaths in-between. In the Marconi Beam informal settlement it was common for people to sit on chairs outside their shacks and talk to neighbours through their open doors and windows and talk to people passing by. The spaces between shacks were also used by children for playing in - safe from traffic and under the watchful eyes of people who knew them.

The communal taps in Marconi Beam were the main meeting points for women where they met to wash dishes and laundry and to talk. Borrowing and exchanging of washing utensils occurred here. There they would “talk about their children, community meetings and what happened at those meetings. The women shared ideas and advised each other on different things like health and their relationships with their husbands [or] the men they co-habited with” (Yose, 1999: 43). This was an important place for women to air their views, because they were often marginalized in community meetings, which were usually dominated by men.

In new housing projects, the quality of communal space is such that it discourages social interaction. At Waterloo, for example, the houses are all separated from each other on their individual little plots. The outdoor space is bleak, barren and windswept and is little used. There are no communal spaces where people can meet and interact on a daily basis. As one resident of Waterloo said: “This place is boring, there are no social facilities here” (BESG, 1999).

Community cohesion

Community cohesion and a sense of belonging are important, but intangible factors that can greatly affect the satisfaction of residents. New housing projects can increase satisfaction and sense of pride. On the other hand, though, it seems that formalization can also result in a loss of community cohesion and increased social differentiation.

The residents of informal settlements often form cohesive communities. The strong sense of community in informal settlements is partially caused by a sense of common marginalization and common purpose as a result of not having secure tenure and proper housing. The second most important reason (after its convenient location) why people liked living in Smithfield was because it was perceived to be a cohesive community - 35% of the reasons why people liked living in Smithfield related to the sense of community and the fact that it was peaceful (BESG, 1999). Comments included “there are good neighbours”, “there are no criminal activities or violence” and “there is order”.

Community cohesion can manifest itself in the form of strong community based organizations that represent residents in a particular area and in a sense of communal ownership of public spaces. The development process itself can cause conflict and tensions in communities, and once formalization has largely occurred the loss of a sense of common purpose can result in a decrease in the strength of geographically-based community organizations and the rise of new types of organizations that represent particular interest groups within an area (Smit, 1998a). In terms of communal ownership, whereas at the Marconi Beam informal settlement people would, for example, walk long distances so as to be able to dispose waste water without affecting their neighbours, at Joe Slovo Park there were frequent disputes between people who could not afford to put up fences between their properties over refuse or waste water crossing into the neighbour’s plot (Yose, 1999).

Over and above the loss of community cohesion in favour of increased individualization, development can result in increased social differentiation. In most informal settlements, most shacks are fairly similar in appearance and better off people do not buy consumer goods and appliances because of the lack of electricity, lack of security of tenure and risk of hazards such as fire or flooding. Some residents of informal settlements are formally employed and have stable incomes and they are therefore able to buy new furniture and appliances and upgrade their houses once they own their own home in a new housing project. Households without any regular source of income are unable to buy new furniture and appliances and are unable to upgrade their houses. A gap can therefore open between the “haves” and “have nots”. As one respondent in Joe Slovo Park said: “...people have changed. They are no longer the same. These concrete houses have made them totally different people from what they used to be at Marconi Beam. They lock themselves in their houses. They no longer visit. They see themselves as people with high status and they look down upon some of us. Look at me now. I am bored and I am scared to go knock at people’s houses to visit them” (Yose, 1999: 81).

Quite apart from increasing social differentiation within the new housing projects, formalization can result in the creation of an underclass of those excluded from new housing projects. This can include, for example, extended family and tenants who are not able to be accommodated in the smaller houses in a new housing project. Some economic activities are also often unable to be accommodated in new housing projects, such as preparing and

selling sheep and pig heads. There are illegal immigrants who do not qualify for housing subsidies and have to build a shack elsewhere when the informal settlement they are living in is formalized (MacDonald, 1998). There are also households who have already received a house, but subsequently sold it for cash and now are no longer eligible for a housing subsidy. Households in the R1501-R3500 p.m. income range, who receive smaller subsidies, can also be excluded from housing projects due to unaffordability (Thurman, 1999). Finally, people involved in illegal activity sometimes rely upon the anonymity of informal settlements and often choose to opt out of formalization.

Social support networks

Social support networks play an important role in the survival strategies of poor households in informal settlements. Social networks can include *stokvels* (savings clubs), burial clubs, church groups, kinship groups based on membership of the same clan, or simply groups of friends. Social networks can also be based on speaking the same language. For example, Sesotho speakers tended to band together in the predominantly Xhosa-speaking Marconi Beam informal settlement. These networks involve activities such as lending money and sharing meals and household utensils.

In informal settlements, the spatial arrangements can greatly facilitate social support networks. Households which are part of the same social network can build their shacks next to each other and extended families can build larger shacks. In the Marconi Beam settlement many shackowners had large shacks with rooms for “tenants”. Most tenants in the Marconi Beam informal settlement did not pay rent - there was more of a reciprocal relationship in which both landlord and tenant helped each other out. For example, the tenants helped out with domestic chores and child care or contributed to buying groceries when they were able to. Sometimes employed tenants even supported their unemployed landlords (Yose, 1999).

The allocation of plots in Joe Slovo Park ignored kin links and social networks, as people did not have a choice of who their new neighbours would be. This particularly disadvantaged those households who could not support themselves and depended upon others. The small size of the houses in Joe Slovo Park also meant that landlords were unable to accommodate extended family or tenants, upon whom the landlords often relied quite heavily.

Apart from the breakup of social networks, it was noted in Joe Slovo Park that the development also brought about a change in the everyday lives of people – in the informal settlement people had a perception of what was acceptable behavior and they had a different perception after moving to the new housing project. Because the Marconi Beam settlement was an informal settlement it was seen as being rural: an *ilali*, a rural village. People’s perceptions that it was the same as a rural area shaped their social relations and interaction. It was said that Marconi Beam “is a rural area and you can borrow whatever you need from someone that you know or feel close to”, whereas “Joe Slovo Park

is a ‘town’, one must have [one’s] own things…” (Yose, 1999: 82).

Economic factors

Informal settlements are by definition unregulated, and this allows various kinds of economic activity to flourish. The organic nature of informal settlements mean that they can accommodate different economic activities with different requirements. *Spaza* shops, for example need a large front room easily accessible to the public and mechanics and panel beaters need large amounts of secure and sheltered outside space (Dewar et al, 1990). Other activities, such as the preparation and sale of sheep and pig heads, are also easily accommodated in informal settlements.

Spaza shops are informal shops that sell a variety of commonly used consumer goods, e.g. bags of maize meal, tins of beans, candles, and so on. *Spaza* shops are considerably more expensive than supermarkets, but they are conveniently located and sell goods in small quantities, e.g. one egg, one tea bag, one tablet, and even one slice of bread, which is suited to people with low or irregular incomes.

Spaza shop owners in Marconi Beam were threatened in various ways by formalization: formal supermarkets could open in the formalized area and sell goods at cheaper prices, *spaza* shop owners may have to apply and pay for licences to operate a business, or they may have to ultimately rent a proper shop to be able to continue their business. The smaller houses in Joe Slovo Park and the requirement that extensions be formal also meant that they did not have sufficient space. *Spaza* shop owners also have little choice of location for their businesses in the new housing projects. For example, after the residents of the informal settlement of Greenpoint, Cape Town, relocated to the new housing project of Masiphumele, Cape Town, one *spaza* shop owner said that “I did better with my shop at Greenpoint. I am not on the main road here. There are no people walking here, it is very quiet” (DAG, 1996: 31). A few of the spaza shop owners from Marconi Beam felt it necessary to move to another informal settlement to be able to carry on their businesses.

Shebeens (informal taverns), which are often the main meeting place for men in informal settlements, are usually prohibited in new housing projects, such as at Joe Slovo Park. Sellers of cooked meat and sheep and pig heads were also excluded by the formalization process. People said that they could tolerate the open fires, blood, animal hair and smells in an informal settlement, but they wanted a healthy way of life in the new area (Yose, 1999). Even fruit and vegetable sellers were threatened by a fruit and vegetable seller from outside the area who started coming into Joe Slovo Park in his van and selling fruit and vegetables.

The minibus taxi industry, which is often the main source of transport for residents of informal settlements, can also be affected by formalization, as the upgrading of roads can result in the provision of bus services, which are

cheaper than taxi services and allow passengers to take shopping bags with them at no extra cost. This can result in conflict between taxi drivers and buses, which has flared into open violence on occasions, for example, in Khayelitsha, Cape Town, in April 2000, when taxi drivers refused to allow buses entry into the area and a bus driver was killed.

In general, formalization can threaten many of the informal economic activities found in informal settlements. These employment opportunities are not being replaced by formal sector jobs – in the two year period from October 1997 to September 1999, the number of jobs in the formal non-agricultural sector in South Africa declined from 5.1 million to 4.8 million (Business Day, 1999).

Environmental factors

Most low-income housing development and informal settlements in Cape Town occurs on the Cape Flats, which is a fairly bleak treeless environment. In Durban, which has a sub-tropical climate, however, the difference in vegetation between informal settlements and new housing projects is vast. It has long been noted that some informal settlements are more aesthetically pleasing than new housing projects in Durban, largely because of the presence of trees, grass and flower and vegetable gardens. For example, 70% of the respondents in Smithfield were happy with the vegetation in their area, compared to 76% of the respondents in the new housing project of Waterloo being unhappy with the lack of vegetation in their area (BESG, 1999).

The first stage in a new project is to remove all the vegetation from the area. This is often supported by the residents themselves, who often fear trees as a hazard (attracting lightning, falling on houses) and see grass and bushes as hiding places for snakes and criminals. Perceptions can be overcome, however - in a new housing project in Hout Bay, Cape Town, residents initially wanted to remove all trees from the area, but after being educated on the importance of trees, they decided to leave as many tress as possible. The trees are now greatly valued for the shade they provide and as shelter against the wind. Vegetation is also important for filtering pollution, reducing runoff and reducing erosion and sand storms.

Informal settlements tend to be fairly responsive to topography and micro-climatic conditions. For example, at Crossroads in Cape Town, there were a number of sand dunes that provided protection from wind and flooding and most shacks were built along them. Vegetation was only removed for building, and the rest was left, which avoided the problem of sand erosion. In comparison, for the nearby new housing project of Khayelitsha, as is standard practice in new housing projects, the dunes were flattened, resulting in no shelter from the wind, and all the vegetation was removed, resulting in severe sand erosion. As a result, when the strong South-East winds blow, Khayelitsha experiences sand storms and some new houses were even almost entirely buried in sand (Dewar et al, 1990).

Conclusions and Solutions

To summarize, the formalization of housing in South Africa, as evidenced by the case studies, can result in the following impacts on residents:

- Basic infrastructure: there is change for the better in terms of health and convenience; electricity is often not effectively utilized.
- Dwelling: the houses in new housing projects are more durable and fire-proof than the dwellings they replace, but they are sometimes smaller.
- Social factors: formalization can result in an increased sense of pride and satisfaction, but it can also result in less social interaction, the breakdown of social support systems, a loss of community cohesion and increased social differentiation.
- Environmental factors: new housing projects are sometimes less responsive to environmental factors than informal settlements, resulting in sterile, treeless environments and erosion problems.
- Economic factors: formalization can adversely affect a variety of informal economic activities.
- Access to urban opportunities: formalization sometimes involves relocation to the urban periphery.
- Tenure: ownership can restrict labour mobility, and formal land transfer procedures are usually not followed.
- Affordability: formalization results in increased housing-related expenditure and increased expenditure on consumer goods.

It appears, then, that although the formalization of housing provides basic infrastructure and better (although sometimes smaller) houses, formalization also results in a number of changes that are not positive: social networks and extended families are often disrupted, both by allocation practices and the small size of new houses, and many economic activities are threatened. Some impacts are ambiguous, for example, there is increased social differentiation.

The housing environments being created by formalization often give the illusion of modern urbanity, but without providing many of the benefits. The need to continually reduce standards and quality in line with the declining real value of subsidies has meant that many of the changes undertaken in the formalization process are cosmetic changes rather than substantive changes – for example, the houses may look like they are superior to the shacks they are replacing, but in reality their single skin blockwork walls, lack of ceiling and inadequate roof overhangs mean that they do not provide adequate protection from the elements. Similarly, the formalized area may provide the illusion of prosperity, but for many, their financial position may be considerably worse off after formalization because of the loss of informal economic opportunities and the need to pay rates, service charges and loan repayments.

The main reason for the mixed impact of formalization is that there are problems with using imported models of urbanity that ignore the complexities of African cities (for example, see Swilling et al, 1998; Adebayo, 2000). Despite much rhetoric about integrated development, development also continues to happen in a fragmented way. Housing projects usually just focus fairly narrowly on housing and infrastructure. The provision of a full range of community facilities or job creation initiatives are seldom part of new housing projects. This is partly because of different government departments or levels of government being responsible for doing specific things from specific budgets, and it is virtually impossible to co-ordinate. Integrated Development Planning is legally required to happen at a local government level, but local governments usually have little or no control over the allocation of housing subsidies or aspects of development such as the provision of education and policing. Development is also not integrated because professionals tend to focus on their field of specialty and not be aware of the interrelationship of issues. It should be noted that much of what happens in the formalization of housing happens not only because of the imposition of rules from above, but also with the support of many residents themselves, who have very strong perceptions of how life in a formal area should differ from life in an informal area. Many of these perceptions seem to be based on an idealized vision of stereotypical middle-income suburbia.

In attempting to ameliorate the negative impacts of formalization processes and work towards truly sustainable urban development, there needs to be greater understanding of the context of African cities, there needs to be better understanding of what adequate and sustainable urban development is and how it can be achieved, and there needs to be greater flexibility with regard to regulations and procedures.

First of all, the social, economic and biophysical context within which formalization takes place needs to be better understood. African cities are different from the Western conceptions of urban modernity through which most formalization practices originated. An example of understanding the context is the development of an informal market in Gugulethu, Cape Town, where the specialized needs of sheep and pig head traders were specifically catered for.

Secondly, a more appropriate vision of what adequate and sustainable urban environments are is needed. The world is changing, and ideas of how to implement development need to change, and not still be based on a modernist view of nuclear families living in residential areas and breadwinners commuting to formal jobs. The perceptions of everybody, including government officials, professionals, politicians and residents, need to change. The new guidelines for the planning and design of human settlements in South Africa (CSIR, 2000) are a good start, as they have a more holistic approach to human settlements than the narrow technical focus of past planning guidelines.

Thirdly, a better understanding of how adequate and sustainable urban environments can be achieved and maintained over time is needed. This requires the study of good practices. For example, *in situ* upgrading with later incremental upgrading of houses seems to result in both a more stable community with well developed social networks and a more pleasant, better performing urban environment, as at Zilweleni, Durban (Smit, 1998b). The greater involvement of individual households in decision making on the design and construction of their houses results in a much richer, more varied urban environment.

Finally, regulations and procedures need to be realistic and flexible, for example, simpler land transfer processes, building regulations that allow for a greater variety of construction options, and zoning that can accommodate a variety of economic activities in residential areas. It should be borne in mind that formalization is not a goal in itself, but should be a process which responds to the needs of people and helps to facilitate real improvements in the quality of life for all.

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