

## APPENDIX 5: THE INTERFACE OF HIV/AIDS AND URBAN LAND ISSUES

This section provides an overview of key issues arising from a consideration of the interface between thematic impacts of HIV/AIDS and land. The thematic impacts considered here are not exhaustive but focus on critical dimensions that should be taken into account when planning policy and programme interventions. They include:

- HIV/AIDS macro-demographic and macro-economic impacts on the demand for land;
- Implications of HIV/AIDS morbidity and mortality on spatial planning and land use;
- HIV/AIDS livelihood impacts on individuals, household, communities, (in terms of economic and social dimensions) and in turn on land;
- HIV/AIDS impacts on the supply systems for land.

Each of these thematic impacts is unpacked in terms of how it interfaces with intrinsic vulnerabilities of the theme explored and/or generating new vulnerabilities. This is then used to articulate specific issues, in the form of findings as well as questions (where the information gathered does not provide conclusive direction).

### HIV/AIDS macro-demographic impacts on the demand for land

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In South Africa there is no certainty about the spread of the epidemic. No representative data is available on AIDS cases and AIDS deaths. The HIV epidemic in South Africa is likely to remain hidden for a long time, both in statistics and the public eye, as the full force of the AIDS epidemic, which lags behind the HIV epidemic, has yet to be experienced (ABT, 2002). However, HIV infection is concentrated in people of working age, and the scale and nature of the epidemic in South Africa make it a significant factor to consider in policy and strategy for delivery in all sectors.

#### *Impacts of HIV/AIDS on the total population*

The South African epidemic is at a relatively early stage in South Africa compared to other African countries. Infection rates among women frequenting ante-natal clinics are used as a proxy for estimating national and provincial prevalence. In the results of the antenatal survey published in March 2001 (Kaiser Daily Health News in Centre For the Study of AIDS, 2002), point prevalence rates for HIV infection in the nine provinces for the year 2000 were estimated as highest in KwaZulu-Natal (KZN) 36.2%, Mpumalanga (MP) 29.7%, Gauteng (GP) 29.4% and Free State (FS) 27.9%, and lowest in North West (NW) 22.9%, Eastern Cape (EC) 20.2%, Northern Province (NP) 13.2%, Northern Cape (NC) 11.2% and Western Cape (WC) 8.7% (Ibid.) . The disparities in the provincial infection rates are narrowing. There are also strong indications that HIV impacts on specific communities within any region can differ markedly. Where prevalence in rural areas is relatively low, it may often indicate a delay in development of their epidemics, rather than a fundamentally different risk profile from urban areas. In 2001, the national average was estimated at 24.5% (Centre for the Study of AIDS, 2002). 4.7 million South Africans are estimated to be living with HIV up from 4.2 million at the end of 2000. Difference between projected total population in 2000 and 2010, according to different actuarial models exist. Whilst there are variations in the projected total population across the models, in the overwhelming majority, they still identify that the total population will continue to increase at least until 2010. Figure 1, below, provide and overview of the projected population up to 2015, by differentiating between a no AIDS scenario, in yellow, a change scenario (i.e. where behavioural and treatment interventions are made), in pink, and a no change scenario, in blue. These projections have been compiled by making use of the recently re-calibrated ASSA model, the ASSA 2000 model.

Figure 1: Total Population in South Africa (ASSA, undated)

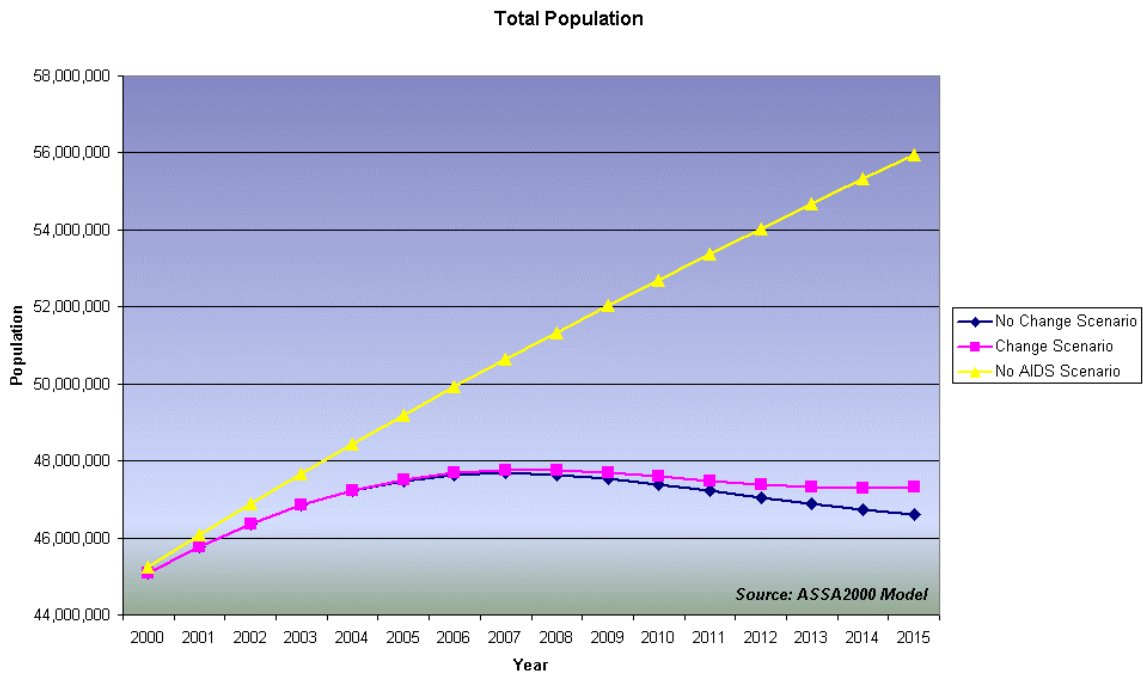


Figure 1 reveals a substantial gap in total population figures between the AIDS scenario and the scenario without AIDS. Importantly, it is worth stressing that the difference, in terms of total population numbers between the Change and No Change scenarios, is minimal in the short term but accentuates from 2010 onwards. The question that these projections raise is: how does a substantial drop in projected total population figures impact on the overall demand for land in the country?

#### *Marginal demographic impacts of HIV/AIDS on total demand in a context of widespread landlessness*

Oxfam co-ordinator Dan Mullins (quoted in the Business Day 30 May 2002) has stated a percentile range for HIV positive potential land reform beneficiaries of between 15% and 35%. Research has been undertaken to consider how macro-level demographic impacts will impact on housing demand for households earning less than R 6000 and R 3500 per month (Khayamandi, 2002).

The prevalence of HIV is expected to result in a drop in housing demand in general. The demand would still increase until 2006/2007, but at a slightly lesser rate than when HIV is not prevalent. It would then decrease slightly until 2010 following the same trend as the HIV epidemic where a plateau phase is expected from about 2005.

The gap between the projections with HIV/AIDS and without HIV/AIDS is taken to represent the impact. The discrepancy between demand and supply remains however so substantial that it begs the observation that the macro-demographic impact of HIV/AIDS may not in fact result in a substantial decrease in the existing gap between demand and supply. Projections have been undertaken in respect of the total demand for income groups earning less than R 3 500 by incorporating housing supply until 31 December 2001 (Khayamandi, 2002). These projections estimate that in 2001 there was a difference in housing demand attributable to HIV/AIDS impacts, of close to 15 000 households. However, they also demonstrate that irrespective of HIV/AIDS impacts, the demand for housing will outstrip supply, which demonstrates that as far as demand for housing, is concerned, in the short- to medium-term macro-demographic HIV/AIDS impacts have not alleviated

what still amounts to a substantial demand. While over time, the demand is posited to decrease, asserting that demand will still outstrip supply by 2010 and even 2015 is a robust conclusion. There will, however, be some provincial variations in respect of the gap between housing demand in an HIV/AIDS context and without HIV/AIDS, with Gauteng and KwaZulu Natal being the two provinces where the gap in demand with and without HIV/AIDS being the most substantial (Khayamandi, 2002). Whilst this gap needs to be considered, it is again worth stressing that it will not eradicate demand. For example, while in 2010 this gap amounts to close to 70 000 households in Gauteng, alone, in 2001, the number of households residing in informal settlements amounted to 529 240 households (Cabinet Memo, 2001). This figure does not include households that may be living in overcrowded conditions and backyard shacks or which may be entitled to a housing intervention. The total housing backlog has been estimated at 750 000 households by 2002 (HSRC, undated). Projected delivery capacity in the province will not exceed 123 600 serviced stands by 2004/05. These figures demonstrate that the gap between supply and demand for housing and urban land will remain substantial in spite of the macro-demographic impacts of HIV/AIDS. Indeed, the historical and development context of South Africa is one where landlessness is so entrenched that even the devastating macro-population impact of HIV/AIDS is unlikely to substantially reduce the demand.

### *Macro-economic impacts of HIV/AIDS decreasing accessibility to land markets and broadening eligibility*

A macro-demographic impact perspective, as above, suggests that HIV/AIDS will not substantially decrease the demand for housing and inter alia urban land. Another perspective on the impact may be framed by considering the macro-economic impacts of HIV/AIDS, and how these would relate to the demand for land and housing as a factor of income eligibility. While macro-economic impact research processes have, to date, been in agreement, in as far as they all foresee a profound impact on the country's economic outlook, the exact nature and extent of projected impacts may vary. The first model developed to produce reliable estimates of the progression of HIV/AIDS in South Africa was the Metropolitan-Doyle model formulated in 1988. It has since been reviewed, and followed by other models including the Actuarial Society of South Africa Model. Most models are based on some form of projection of the impact of the HIV/AIDS pandemic on the population differential and apply the findings to macro-economic inputs and output projections based on specific economic linkages by reviewing demographic impacts on growth scenarios. The non-alarmist scenario forecasts of ING Barring (2000) predict that GDP trends growth is forecast to be on average 0.3-0.4 percentage points per annum lower than on a no AIDS baseline. In their 1997-2010 impact simulation exercise, Arndt and Lewis (2000) find that GDP levels could be 17 percent lower in an AIDS scenario. Irrespective of the full scale of the impact of HIV/AIDS on the macro-economy, it is clear that its outcome may be such that the total income per capita and total consumption per capita can decrease dramatically.

Tomlinson (2001) suggests that in a context of globalisation where formal employment is on the decrease in South Africa, increasingly the ability of a critical mass of the population to access housing (and inter alia urban land) will diminish. Overlaying the macro-economic impacts of HIV/AIDS on the current trends of pauperisation and its implications for access to land paints a dark picture of increasing vulnerability. In fact, decreasing per capita incomes may result in situations where, households that would otherwise not be eligible for state assistance in terms of the current subsidy eligibility criteria, become theoretically eligible (from an income threshold perspective alone) because of the macro-economic impacts of HIV/AIDS.

### *Changing population profile*

Contemplating demand in macro-demographic and macro-economic terms only would be highly inappropriate. Indeed, the demographic impacts of HIV/AIDS are far more insidious and transformative. A closer, more nuanced, consideration of demographic impacts is required. HIV/AIDS is already changing, and will continue to change, the demographic structure of the South African population. In Figure 2 and 3 below, population

pyramids are captured for 2015, in a no AIDS and AIDS scenario (ASSA, 2000). The two population pyramids show the difference in population structure in 2015 that would be due to HIV/AIDS.

Figure 2: Population Pyramid 2015, no AIDS scenario (ASSA, 2000)

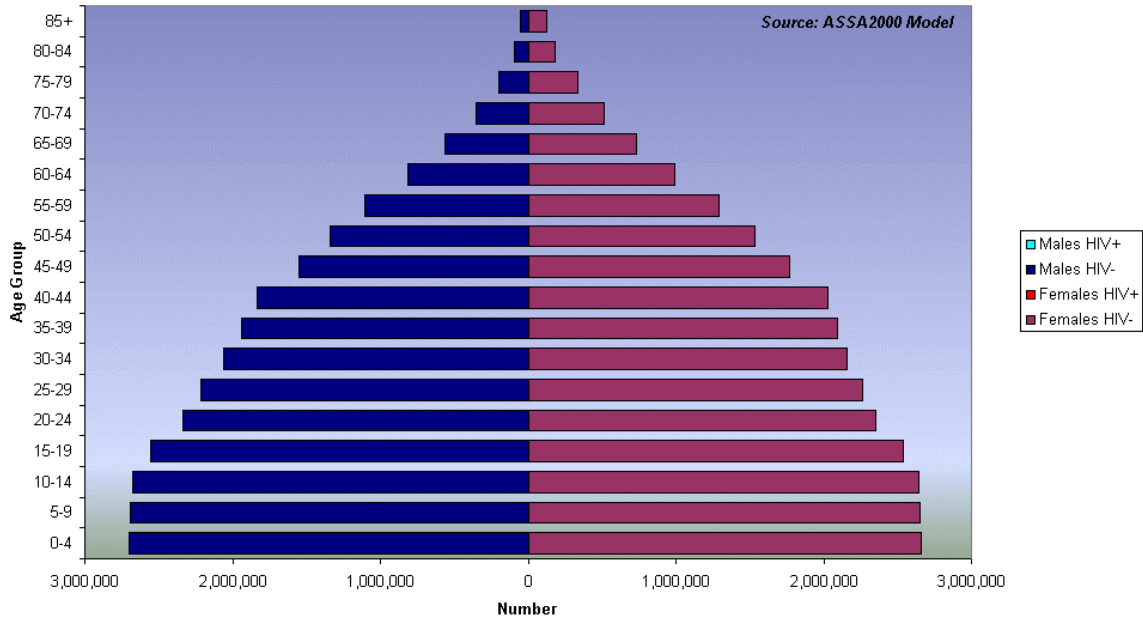
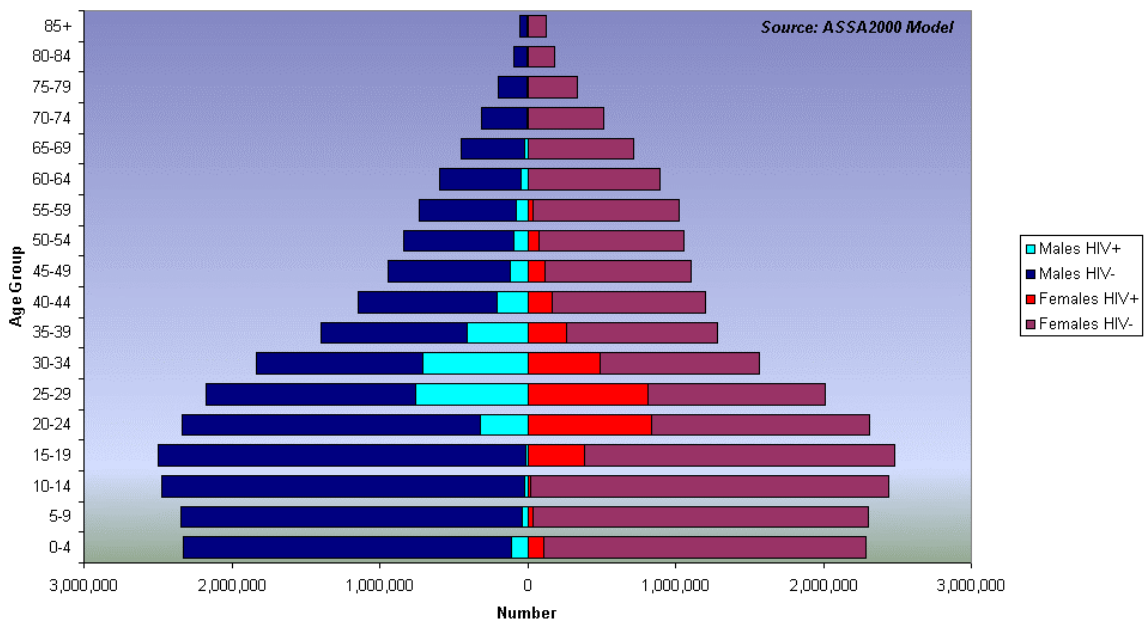


Figure 3: Population pyramid, 2015 (no change scenario) (ASSA, 2000)



The population pyramid contained in Figure 2 is typical of that of a developing country with its symptomatic broad base. Figure 3 provides a graphic representation of the substantial shifts in population profile in 2015. There, a few observations can be made. Firstly, the base of the pyramid has shrunk substantially, suggesting

an important decrease in the rate of natural population increase, due largely to increasing infant mortality as well as an overall decrease in fertility levels. Secondly, the ratio of male to female population is substantially skewed in favour of males, who are generally much less vulnerable to HIV infections. Thirdly, there is a much more pronounced decrease in the proportion of the population aged 25 to 60, signifying a substantial shift in household dependency ratios, and suggesting a substantial rise in the number of orphans and young adults without one or two parents. These demographic changes will have profound economic, social and political impacts both at the micro (household) and the macro (national) level. These changes will affect existing client categories, as defined in the terms of reference of the scoping paper. They are also likely to create new client categories and fragment existing ones. For example, in 2002, the national number of AIDS orphans was 279,102 (CSA, 2002). This figure will increase substantially by 2015, arguably beyond the carrying capacity of social networks that have historically provided care and guardianship support to orphans. This is already and will continue to give rise to household profiles that differ from current household profiles. These household profiles and client categories may have substantially different requirements from land as an economic, social and shelter asset and abilities to sustain such assets. Similarly, the contextual parameters in which land is held and trade are likely to change. To explore these dimensions, this report now turns to other thematic impacts, by drawing on literature documenting empirical research undertake 5 key studies:

- “The impact of HIV/AIDS on the demand for low cost housing” undertaken by Khayamandi (2002) which surveyed a total sample of 2935 respondents frequenting HIV/AIDS support groups and clinics,
- “The Socio-Economic Impact of HIV/AIDS on Households in South Africa: Pilot Study in Welkom and Qwaqwa, Free State Province”, by Booyesen, F. le R., Bachmann, M., Van Rensburg, H.C.J., Engelbrecht, M., Steyn, F. and Meyer, K. (2002) comparing socio-economic changes between 406 HIV/AIDS affected and non-affected households longitudinally;
- “The impact of HIV/AIDS on land issues in KwaZulu-Natal province, South Africa”, by Cross, C. (2002) documenting and analysing detailed case histories of 20 HIV/AIDS affected households;
- “Hitting Home: How households cope with the impact of the HIV/AIDS epidemic” by the Health Systems Trust (2002) documenting and analysing the findings of a survey of close to 800 HIV/AIDS affected households; and
- “Impact of HIV/AIDS on the construction sector and in turn on the implementation of the Housing Policy”, Development Works (2002) documenting the findings of in depth primary and secondary research on the impacts of the range of delivery agents active and supply systems through which the Housing Policy is implemented.

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### Implications of HIV/AIDS morbidity and mortality on spatial planning and land use

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HIV/AIDS is a chronic disease. Most infected people only show signs and symptoms of disease after many years, thus the extent and impact of the epidemic remains hidden. The average time from HIV infection to testing HIV positive is 2 months (the so-called “window period”). The average time from contracting the virus to the onset of AIDS is 10 years (Abt, 2002). Average survival following an AIDS defining condition is 2 to 3 years, without anti-retroviral treatment. HIV infection results in a progressive weakening of the immune system. This makes a person susceptible to a wide variety of opportunistic infections and cancers. Secondary infections due to lower immunity occur at stages of disease before development of AIDS itself. Secondary diseases that are termed “AIDS defining conditions” occur in the end stage of the natural history. Diseases associated with HIV infection occur such as tuberculosis, diarrhoeal diseases and pneumonias (Ibid). These physiological changes, ultimately resulting in the death of the HIV/AIDS victim have direct requirements and implications from the manner in which land is held and transacted. The following focuses on land dimensions in as much as they relate directly to HIV/AIDS infected individuals (as opposed to households which are considered in subsequent sections). This section first raises issues relating to the physiological requirements from land and space in relation to access to health and other services as well as shelter requirements. It then

considers impacts in terms of migration. Burial practices and the impact of HIV/AIDS morbidity on land are considered last.

The health care support requirements of HIV infected individuals progressively increase and become more complex with the onset of AIDS defining conditions. In the Booyesen study, it was found that government health services were the most common source of health care. Ill members of affected households in most cases attended a government clinic and in some cases attended a government hospital. In contrast, ill members of non-affected households were most likely to have attended a government clinic. Similarly, the Khayamandi research showed the significance of access to government hospital as a preferred source of care over other options. It is worth noting that the current health care dispensation in respect of the treatment of HIV/AIDS victims is promoting home-based care as a substantial source of care. Importantly, this option has not been consistently applied in all provinces or municipalities. Further, the emphasis on deconcentrated primary health care through the establishment of community clinics and related services means that the spatial accessibility of the preferred source of service (government hospitals), will be challenging for a substantial majority, in the context of urban South Africa marked by spatial fragmentation and dislocation. This suggests that the continued peripheralisation of access to urban land (through both formal and informal delivery channels) appear particularly at odds with the health-care requirements and preferences of HIV/AIDS victims.

Migration of infected individuals was noted in both the Khayamandi and Booyesen research. In the Khayamandi research, the main reasons for individual as opposed to household mobility were reported to have been due to the desire to leave the family, for privacy and independency and to get care and support. Discrimination against HIV positive persons accounted for 8.10% of the HIV positive persons migrating. This low percentage however, should be considered against the fact that only 8.1% of those that are HIV positive told their neighbours and only 20.7% told their friends of their HIV positive status. In the Booyesen longitudinal research, 14 out of 406 households could not be interviewed again due to reasons related to migration. In affected households more than a third of persons moved because of relatively uncommon reasons, i.e. to stay with parents, other family or friends, or because of illness or death. The migratory patterns of HIV/AIDS affected individuals were characterised in both pieces of research as atypical to the migration patterns of non-affected households and individuals. Importantly, whilst it is worth noting that historically, land and urban policy responses to migration have been at worst particularly repressive and at best unaccommodating, there is no indication that the HIV/AIDS implications for individual mobility are being considered. Of greater concern, Tomlinson (2001) argues in respect of housing and shelter issues, it is due to the instability of households and individuals affected by HIV/AIDS, and their inability to afford adequate shelter of some sort and to pay for services that governments' approach to housing policy is particularly mis-guided as it results in the permanent allocation of fixed assets and services which affected individuals cannot sustain without substantial assistance.

The shelter needs of HIV/AIDS victims have received some research and policy consideration from a minority of provincial organisations. In the Khayamandi research, a large proportion of respondents indicated closeness to health centres as the most important locational attribute for a housing unit. This was followed by 18.6% of respondents across the spectrum of settlement context stating that they would prefer to move to urban area and 9.4% close to where they live currently. The question of temporary hospice-type shelter, to accommodate the shelter and health care needs of individuals that are in the last stages of AIDS defining conditions appears to be the subject of differing opinions. For example, the Khayamandi research seems to suggest that this would be preferred by a substantial proportion of HIV infected respondents. This would seem to suggest that access to land (as a proxy for shelter and tenure) may need to be granted on a temporary basis. On the other hand, on the basis of her interaction with HIV/AIDS support groups and NGO's, Liz Floyd HIV/AIDS co-ordinator for the Gauteng province suggests that as a result of HIV/AIDS awareness raising activities in the province, the level of stigma associated with the disease has substantially decreased (Floyd, Presentation at the DBSA, June 2002). In turn, this has meant that HIV infected individuals are less wary of disclosing their status to their neighbours and friends than would otherwise be the case, or of remaining within their

communities and household even through the last stages of the epidemic. She further contextualised the trend by emphasising the successful establishment of home-based care systems and support group throughout the province. This would suggest that where the support environment is established the temporary nature of access to a particular type of shelter (and inter alia tenure arrangement) may need to be de-emphasised. The diversity of perspective is not easily resolved in the absence of dedicated research findings. It is however plausible to assume that this diversity is context specific and may call for a range of responses. Paradoxically, it is in respect of the housing needs of HIV infected individuals in the last stages of the disease that policy responses have been most forthcoming, although only in a limited number of provinces. In particular, the use of institutional housing subsidies to provide for the setting up of hospice-type accommodation is receiving substantial attention. Typically, this approach aligns with the categorisation of HIV/AIDS impact in policy and departmental structures as part of a “special needs” grouping of issues that also typically incorporate women and the disabled. This “special needs” approach is symptomatic of an institutional system that is yet to mainstream the implications of the range of HIV/AIDS impacts in policy, programmes and projects.

Disposing of the bodily remains of AIDS victims is also featuring as an issue which government role-players, in particular municipalities, whose sphere has competency over cemeteries, are attempting to grapple with. N Botha, Deputy Minister, Provincial and Local Government, as part of a speech given at a symposium on local government and HIV/AIDS mentioned increasing demand for land for cemeteries and incidence of pauper burials and poverty-relief programmes as particularly challenging to municipalities. Harber (2002) depicts the horror of cemeteries as freshly ploughed fields, over-spilling into public open spaces and roadways and the abandonment of cadavers for pauper's burials. He forecasts that in five years' time South Africa will require 65 ha of land each month to bury the additional bodies of HIV/AIDS victims in both formal and informal burial grounds to sterilise residential land. Whilst this issue has been identified as problematic, its full scale and implications have yet to be ascertained.

#### **HIV/AIDS impacts on livelihoods and land**

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Sunter and Whiteside (2000) posit that AIDS will have a greater livelihood impact than death from other causes. Their suggestions as to why this may be so include, the protracted nature of HIV illness and the lengthy depletion of household resources giving rise to greater and more enduring hardship than other causes of death. They note in particular, that not only does poverty help drive the epidemic, but that AIDS increases poverty levels and socio-economic inequality.

The following section unpacks how HIV/AIDS impacts on livelihoods based on the findings of documented research on the socio-economic impacts of the pandemic, as follows:

- The section first explores the household economic impact of the pandemic by considering how HIV/AIDS impacts on income and expenditure streams and extent. It also explores financial coping strategies such as the use of savings, borrowing and asset disposal as well as long-term planning and preparedness;
- Then, household transformation patterns are considered in terms of household size, dependency ratios, mobility and organisational capacity;
- Finally, consideration is also given to the broader community and settlement level impacts.

#### ***Economic impacts on the household***

The economic impact of HIV/AIDS on households is concerned with considering how the pandemic interfaces with household income generation, expenditure and financial strategies (in the short and long-term). These considerations are then used to draw some findings in terms of the effects of HIV/AIDS impacts on livelihoods.

### **Impact on income generation**

Impact on income generation is creeping in nature and affects the individual and other members of the immediate and extended HIV/AIDS affected households, as well as members of the community in which they reside. After the onset of AIDS defining conditions, where unavailability of treatment combined with a lack of food security, opportunistic infections together with a decline in productivity levels means that both formal and informal (and even survivalist) economic activity substantially reduces income streams. It is however, not only a case of the AIDS victim losing income opportunities. In the Booyesen study, it was found that most households with ill or dying members carried a burden of caring. More than 60% of ill people required someone to care for them at home, while more than half required someone to accompany them to health care. Critically, the Health Systems Trust research noted that although a range of grants (including disability grants) exist that may alleviate a loss of income due to HIV and AIDS morbidity, the take up rate of the grants is often low. As mortality sets in even extended family members, neighbours and friends are also mobilised to attend funerals and provide support to the bereaved immediate household members. It is important to stress that in South Africa, the economic impact is being overlaid on a household and community-level economic context which is already weak and where more than 40% of the potentially economically active population is unemployed.

### **Impact on expenditure**

Increase in the extent and changes in the patterns of household expenditure are driven by morbidity and mortality. In terms of morbidity, the Khayamandi research found that close to 40% of the HIV positive persons reported that their overall expenditure had increased. Those that indicated an increase in overall expenditure, reported the reasons to be increased payments treatments and increased food and medication required. In the comparative Booyesen research, it was found that substantially larger proportion of household resources were allocated to expenses on food and health care, while a smaller share goes to expenditure on education, clothing, personal items, transport and durables. The share of expenditure on household maintenance, rent in regular, monthly household expenditure is more or less similar.

The Booyesen study found that a death puts a much greater financial burden on a household than does illness. In a worst case scenario, the burden on affected households amounted to 3.4 to 4.3 times average monthly household income and 5.7 to 7.2 times average monthly household expenditure. Unlike in the case of illness, the cost of a death to households remain high even where unemployment levels are very high and household members are primarily cared for by relatives with no direct loss of income. This can be attributed to the fact the funeral costs are very high and represent the largest share of the cost of mortality. The average direct cost of mortality to affected and non-affected households respectively amounted to R 3928 and R5018 per death. The Health Systems Trust research corroborates the scale of the impact of AIDS deaths on household expenditure patterns and noted that rural households spent 350% of total monthly household income on funerals, compared to 500% in urban areas. What is significant about the nature of this expenditure is the sudden drain it places on household resources which have to be mobilised at once and will not be used for any productive purpose (i.e. they are primarily geared to cover funeral costs). Furthermore, in spite of signs of approaching morbidity, the extent to which affected households are able to mobilise resources to cover funeral costs in advance appears limited. The Khayamandi research revealed that few respondents had made arrangements to cover the immediate and longer-term costs associated with their passing. This should perhaps be contextualised in the light of the widespread practice of burial societies, informal savings clubs that pool together their members' resources to cover funeral expenses thereby cushioning the sudden nature of such expenses. It is, however, highly plausible that increasingly, the savings capacity of such societies is being depleted with the increase in AIDS related mortality. This confirms the findings of the Booyesen research which found that relatively few households that had experienced a recent death received a lump-sum payment or inheritance following the death, underscoring the few means poor households have to cope with such deaths.



Changes in expenditure patterns do not stop after the death of HIV/AIDS cases in the household. The Booysen research found that when comparing regular expenditure patterns in households that have not had to cope with a death and were affected by a death it was found that household affected by death spends relatively more of their available resources on food, health care, clothing and rent, and a less on education, household maintenance, transport, personal items and durables compared to households where no death had occurred in the six months before either interview. However, in terms of households affected by multiple deaths changes in expenditure patterns are particularly dramatic, with rent, durables and transport almost falling out of the picture in favour of expenditure on health care, food and other basic necessities.

### Financial coping strategies

In order to cope with decreasing income and increasing expenditure, households can draw on four types of coping strategies: i.e. to borrow, to utilize savings, to sell assets, or to seek to increase income. The Booysen study found that the most frequent responses of households to financial crises seem to be borrowing, followed by the utilization of savings and the sale of assets, with a considerably larger proportion of affected households that had utilized these strategies also being affected by illness and/or death. In the total affected and non-affected samples money was borrowed from relatives and friends in almost 70% of cases. The magnitude of dissaving is considerable as affected households gradually deplete their savings as the costs of morbidity and mortality increase and at the time of the latest wave of interviews in the longitudinal study had utilised up to 46 months of current savings, whereas non-affected household only utilized 5 months of current savings. Moreover, affected households on a monthly basis save approximately 40% less than non-affected households. Only a very small percentage of households sold assets. Affected household that sold an asset were respectively affected by illness and death. The small number of assets owned by the average household explains why only a very few households were able or willing to exercise this financial strategy. Households primarily sold household appliances, livestock, furniture and vehicles. Proceeds from asset sales represent a very substantial financial coping mechanism and were used to pay for food or to repay debt. The Khayamandi study, confirmed the practices of dissaving and borrowing but also noted the existing high levels of household debt owed by the households, which amounted on average to 4 times the amount of household income. The Cross study found that the household labour and asset mobilisation ability of HIV/AIDS affected household was minimal and that successfully developing and implementing alternative income generation strategies appeared to present insurmountable challenges for such households. Of note is urban and peri-urban contexts is the widespread practice of informal rental as a means of income generation. Recent media coverage has periodically raised some of the risks associated with weakly structured headless households unable to maintain a hold over their assets in such situations of informal rental, although there is insufficient empirical evidence pertaining to the extent and implications of informal rental practices as a financial coping strategy.

The above provides some insights into the coping practices for managing (albeit poorly) the household economic impacts of pandemic. These practices are emerging in a post-hoc manner. The Khayamandi research provides some insight into the extremely limited extent to which affected individuals anticipate their responses and that of other affected practices to cope with such economic impacts. Almost none of the focus group members had made future plans for their current housing situation, money owned to state, money for food or money for education. The majority also indicated that their relatives (mostly grandparents) would take care of their children in the event of death. Only 26.0% of the interviewees with a HIV positive status have a funeral policy. Only 14.7% have insurance policies taken out with their children as beneficiaries, while only 8.0% of the HIV positive members of the households have a will. This was seen to suggest that HIV positive individuals are undertaking almost no formal future planning strategies. Close to 70% of the households that were interviewed indicated that they had no plans for the money they owed. While, 12.3% indicated that their relatives will take care of it, and 8.2% indicated that their employers will be responsible for the debt. Only 0.5% indicated that this burden will be paid off by their savings. The emerging picture is that not only are HIV/AIDS affected households submitted to substantial economic stresses in the short term, through AIDS morbidity and

mortality of infected members, but the absence of forward planning for longer-term economic survival means that livelihood production and reproduction opportunities in the longer-term remain uncertain.

### *Social impacts*

The wide ranging household demographic and economic impacts also give rise to far reaching social impacts. To start with, they affect the household profile. As was explained in the section pertaining to the macro-demographic impact and in turn on the demand for land, HIV/AIDS is likely to generate new client categories. The following explores in more detail, again by drawing on the findings of primary research, some of the household and community composition impacts and draws implications in terms of livelihood and in turn land as an asset that supports livelihoods. Secondly, this section also explores how HIV/AIDS interfaces with exiting practices in relation to accessing and retaining land as a livelihood supporting asset. This will be undertaken by drawing on case level research as well as anecdotal evidence arising from Development Works project work.

#### **Changing household profiles and client categories**

The household structure which most housing and land delivery policies are premised on is becoming increasingly at odds with the reality of South African urban and peri-urban households. It is worth noting that whilst little empirical research has been done to establish a typology and extent for the range of household types, it is also highly unlikely that, historically, the majority of households have neatly aligned to the nuclear model of two parents with children on which policy is premised. Instead, a wide array of household types with multiple generations and transient members has been established, in parts due to the distorting impacts of Apartheid urbanisation policies. HIV/AIDS is a new factor of household profile transformation.

In the Booyesen study, it was found that affected households on average are slightly larger than non-affected household in terms of household size and that the dependency ratio in affected household are higher than that in non-affected households, implying that households affected by HIV/AIDS in fact have a smaller supply of labour than non-affected households, with a larger proportion of the household consisting of children and elderly persons. The Health Systems Trust research noted the sudden growth of HIV/AIDS affected households, being augmented by orphaned children and unemployed family members, once the impact of morbidity in the household and its extended family sets in. The Booyesen study highlighted the fact that almost a third of households- both affected and not-affected- in the sample sheltered at least one orphaned child. It found that mortality in particular induces household migration among affected households, especially among younger persons (i.e. teenagers). This emphasises the fact that even if households do not contain an HIV infected individual they are vulnerable to the effects of HIV/AIDS morbidity and mortality, thus stressing the pervasive nature of the social impacts of HIV/AIDS.

Typically the change in household size, coupled with a change in dependency ratios suggests that prospective beneficiaries of land delivery interventions are becoming poorer by having to stretch their already meagre assets to cover a wider range of members. Tomlinson (2001) stresses that the current housing development approach is fundamentally at odds with the demographic and socio-economic impacts of HIV/AIDS on target beneficiaries. He argues in particular that while still functioning families and including extended families that are sustained by relatives (who typically move into the dwelling unit) will warrant the continuation of pre-existing housing policies; families headed by HIV infected adults, child-headed families, expelled HIV positive family members, homeless children (not all of whom will be orphans and some proportion of whom will be HIV positive) will require shelter of some sort. However, the type of shelter benefit which may be required for the later cannot be effectively addressed by a stand-alone starter house, with services and individual ownership rights. For instance, reliance on extended family structures has resulted in severe overcrowding, which can lead to hygiene and sanitation problems (BESG, 2001(b)). This is a significant factor of stress on the

beneficiaries of the Housing Policy, who are affected by HIV/AIDS. Importantly, Tomlinson notes, while the policy is premised on the incremental household development by beneficiaries of their starter houses, the increased poverty brought about by HIV/AIDS and rising unemployment levels will not enable households to invest in housing development so that household savings, a precondition for accessing a housing and land benefit within the current policy dispensation and for developing, consolidating and maintaining physical land and housing assets, will be used to care for the sick and pay for burials (Tomlinson, 2001). In a nutshell, the current policy assumption that households are in a position to prioritise land and housing as a desirable asset acquisition option is being challenged by the socio-economic realities facing HIV/AIDS affected households and communities.

### **AIDS orphans and vulnerable household profiles**

In the Khayamandi study it was found that children headed almost 5% of the households in the survey. Although this is a substantial proportion of the research sample, it is worth noting that the research specifically targeted HIV affected households. Nevertheless, it is also worthwhile considering the range of implications which the existence of child-headed households bears in terms of livelihoods and more directly in terms of accessing, holding and transacting in land. It is estimated that there will be almost 2.1 million orphans by the year 2010 (CSA, 2002). This is a substantial client category at a globular level. However, it is also worthwhile emphasising the different household formation routes that are available to orphans in the South African context. The Cross study, is particularly informative in respect of the new types of client categories emerging from the social impacts of HIV/AIDS. It offers insights into a substantial variety of household profiles that have become pooled together even temporarily as a means to weather the impacts of HIV/AIDS and poverty. Importantly, the study highlights the lack of definitional clarity of the term “child-headed” in terms of age as well as dependency profile. It explores the emergence of households of orphaned young adults aged between 18 and 25 with or without children who temporarily come together and notes that some young adults return to live with their parents and/or grand parents once a partner has died or once they themselves become ill. This type of practice is important to consider in relation to the assets available to the receiving households. Typically, these include land or housing or in the case of grand parents a monthly pension which provides some, albeit extremely limited, regular income. The research makes specific mention of the emergence of a class of young adults whose shelter options are increasingly being limited to informal rental tenure. These new client have different requirements for urban land and shelter. They may also have different obstacles from accessing, holding and retaining land.

The Cross study unpacks some of these aspects in relation to land administration matters. Cross explains how the customary practices of holding land through patrilineal family clusters has remained, albeit in diluted forms, and is giving rise to a spectrum of land acquisition and dispossession patterns from vulnerable households. These range from extended family-aided and abated “land snatches” and outright dispossession to more supportive practices of guardianship of vulnerable household members and their assets, including land. She notes in particular that households that are vulnerable to being deprived of their land assets are not specifically child-headed but include a range of household profiles that are mostly financially unviable. This occurs particularly, where the head(s) of household whose tenure rights had historically been confirmed, has died leaving behind an array of loosely organised dependents, often with their own children. The issue of household non-viability is expressed as a notion that partially underlies the practice of dispossession. In a rural and peri-urban context household viability can be measured against the household’s ability to mobilize labour to cultivate land and uphold the value of land as a productive asset. In an HIV/AIDS context, a headless household, who has had to bear the economic brunt of HIV/AIDS morbidity and mortality, is often unable to mobilise its members to undertake cultivation activities, thus becoming even more vulnerable to food insecurity. Historically, Cross argues, a household that could not uphold the productive value of land would be incorporated into another household to ensure that its members would be cared for, that the asset value is realised and that it remains within the extended patrilineal family cluster. Whilst the customary practice is more visible in rural contexts, Cross also notes that extended family members who reside in urban settings are

known to reclaim land in rural areas for such purposes. In the course of Development Works projects anecdotal evidence has also emerged that this historical practice is being called upon to access the property of extended family members by dispossessing vulnerable household members, often without their benevolent absorption into a new household. In Homeless People's Federation projects, anecdotal evidence has emerged that the dependants of the members of a communal property association are risking falling prey to the land owning aspirations of their relatives. The strong community self reliance and mutual support and protection practices of Federation groups have, however, been instrumental in safeguarding these vulnerable rights. Recent media coverage has also recently identified the particular vulnerability of HIV/AIDS affected households to land and housing snatching practices. Whereas the original customary practice linked the asset dispossession to the benefits of guardianship the extent to which the latter aspect of the practice is still retained within both peri-urban and urban contexts without strong community mutual protection and support remains unclear.

Of note are the findings of the Khayamandi research which emphasises that almost none of the focus group members had made future plans for their dependents. The majority indicated that their relatives (mostly grandparents) would take care of their children in the event of death. Only 8.0% of the HIV positive members of the households have a will. Not only would this lack of preparedness leave dependents open for dispossession but it also raises the difficult question of how to address the rights of the dependents of beneficiaries who die prior to transfer of property. This issue is particularly complex. It pits a range of interests against one another. First are the rights of the dependents of the beneficiary. Second are the commercial rights of organisations acting as developers who bear the holding costs associated with not being able to finalise the transfer of the property in the name of the intended beneficiary. Typically, together with the costs associated with remedial action, these amount to R 1 600 per site (Development Works, 2002). Third, are the more amorphous but nevertheless significant interests of the landless as a group, whose opportunities for gaining legal access to land is reliant on climbing the tortuous ladder up the waiting list but who may be economically and socially able to sustain the costs of maintaining access.

At face value comparing the virtues of the first and third interests may seem futile and even insensitive. Yet, in an urban context, household viability is often a pre-condition for maintaining access to land and housing as a shelter asset. Tangible costs such as payment for services, rent, rates, and basic maintenance are influential in maintaining access to the asset. Households that are affected by HIV/AIDS may not be in a position to meet these requirements. In such conditions, for the most vulnerable households, an asset may become somewhat of a liability. Although the practice of informal transfers and resale of RDP houses and sites and services erfs has yet to be quantified, it is known to be a survival strategy in the face of economic hardship irrespective of HIV/AIDS. It is plausible that in a context of HIV/AIDS this practice will amplify. Aside from the implications which this may have for the integrity of the property registration systems, it is worth noting, as Tomlinson (2001) does that the shelter needs of particularly vulnerable households may not be met by maintaining an economically and socially unviable household on land and in housing units that they can ill afford and that does not meet their socio-economic care requirements. There is some, although limited, media-related evidence that in an effort to become financially viable vulnerable households are taking to renting informally land in their backyard or rooms in their house to eek out an income lifeline for themselves. While this may indeed be a critical coping strategy, it has also given rise to situations where the tenants, realising the vulnerability of the household, take over the household and the property.

### *Social impacts on the community and settlement*

Although research has been undertaken at the household level to consider socio-economic impacts, community-level impacts have yet to be investigated. However, considering the outcomes of some empirical research together with anecdotal evidence gathered through interaction with role-players enables the identification of issues for consideration. In this respect, two perspectives have been noted. The first

perspective is that where social networks are strong and self-regenerating, they offer a level of protection from socio-economic impacts and attenuate their effects. The second perspective posits that by drawing on social networks to weather the socio-economic impacts of HIV/AIDS affected households weaken and strain these networks and the households that are not directly affected. These perspectives are neither entirely complementary nor contradictory, and would require more empirical consideration, than is possible here. However, because both have a bearing on the impacts of HIV/AIDS on livelihoods and in turn on land as an asset, they should be considered.

Anecdotal evidence suggests that strong social networks offer protection to vulnerable households in the face of HIV/AIDS. For instance, in the Development Works study it was reported that the extensive community mobilisation process involved in the people's housing process, provides a platform around which to successfully consider and respond to the socio-economic impacts of HIV/AIDS at the household and community level. The durable group mobilisation and development ethos practiced by the Homeless People's Federation has seen communities intervening to protect vulnerable households from the usurpation of land rights by relatives after the death of the household head. These responses suggest that social assets can support HIV/AIDS affected households in the face of HIV/AIDS.

An important dimension of HIV/AIDS economic impacts that is often not considered is how the community-level impacts may amount to more than the sum of the impacts on households within a given community, thereby turning social assets into social liabilities. In the Booysen study, it was found that, where borrowing was used as a financial coping strategy, in more than 60% of cases the money was borrowed from relatives and friends. In the Khayamandi study, expectations that family and friends would provide guardianship and debt repayment support is emphasised above. Rural settlement level research undertaken in the Mount Frere area (Economic Policy Research Institute, 2002) indicated that the social custom of providing material and emotional support to bereaved persons is fast depleting assets held throughout the community, so that even households that are not directly affected by the death of a member come under strain in order to support those that are. Although this practice originates in rural areas, it is probable that it persists- even in a diluted or transformed manner- within urban settings; after all, the practice of burial collections in the workplace is very much alive. Similarly, sheltering orphans is visibly adding to the vulnerability of weak communities. These and other concerns suggest that there may be vulnerability thresholds for socio-economic networks beyond which HIV/AIDS impacts precipitate communities and settlements. In such an ultra-vulnerable context the ability of communities to articulate a demand for land, to access and maintain access over land may become even more precarious than is currently the case.

### **Impact of HIV/AIDS on supply systems**

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The previous three sections have considered how HIV/AIDS will interface with the demand side of urban land. This fourth and last section is concerned with how HIV/AIDS will interface with the systems of delivery of land in urban contexts as well as the specific delivery agents that are involved in the administration and development of land, from a demographic and economic perspective. This section draws specifically from research undertaken by Development Works on the impact of HIV/AIDS on the construction sector and in turn on the implementation of the Housing Policy from 2001 to 2002. Whilst the scope of the research was much broader than simply considering land related impacts, it generated important findings in respect of the housing supply systems which typically involves the delivery of land as well as the specific delivery agents and occupational categories involved in the delivery of land.

#### *Demographic impacts of HIV/AIDS on occupational categories active in the land administration and delivery sector*

A range of delivery agents are involved in the supply systems through which land is made available, in particular where land is made available as part of subsidised housing delivery systems. When focusing on land, however, specific delivery agents are drawn upon. These include institutional role-players who are delivery agents active within the national, provincial and municipal spheres of government as well as technical and professional role-players in the surveying, engineering, planning and conveyancing professions in the public, private and not for profit sectors. In the housing and land delivery environment, public sector institutional role-players are involved in the screening and approval of project proposals and subsidy applications as well as the processing of subsidy draw downs (claims). The land assembly and planning component requires the involvement of municipal authorities, provincial authorities or other land development authorities. It includes the property registration system governed nationally by the Deeds Office and the Surveyor General's Office. It is, however, in the private and NGO environment that most of the site specific professional activities are performed (such as surveying land portions, developing layouts, engineering designs, compiling title deed information, and project management). The roles of private and non-profit delivery agents are often distinct from those performed by public sector delivery agents; however, they are ultimately complementary. If one set of role-players is unable to perform their roles, the other role-players will also be hindered. Hence, if one set of delivery agents is vulnerable to the demographic and economic impacts of HIV/AIDS, this means that other delivery agents will likewise be vulnerable.

Institutional role-players in the public and non-profit environments are generally operating in a shallow base of organisational capacity, in terms of the level of skill held, the number of staff and the paucity of administrative and decision making systems. Although the private sector is generally able to attract and retain skilled personnel, in respect of land related delivery agents, these are not only increasingly shying away from low-income land and housing delivery processes in favour of high income residential, commercial and industrial developments, but also favouring more upwardly mobile sectors such as the financial and information technology sectors. Overall, this means that the availability of required technical and professional capacity to the land and housing delivery systems is becoming narrower, irrespective of the impacts of HIV/AIDS.

The occupational categories representing this broad type of delivery agents include professional support as well as on site professionals and technicians categories. Analysis of the 1996 Census data to estimate current and future prevalence, morbidity and mortality for the range of occupational categories found in the delivery of land and housing found that HIV infection levels among professionals and technicians on site are set to rise from below 9% in 2002 to 12% in 2006 and just under 15% in 2010. While the current infection levels are already fairly high for this occupational category, the visibility of the impact of the epidemic is much lower. Indeed, the AIDS epidemic lags behind its HIV predecessor, so that at present both the number of people ill with AIDS and the number of AIDS deaths are less than 1 per hundred persons. These figures are however set to increase to over 1 per fifty and 1,5 per cent respectively in 2010. A further factor masking levels of AIDS is likely to be greater access to antiretroviral drugs in this group, which tends to have higher access to medical aid cover. This suggests that a demographic impact on this group of delivery agents could leave a vacuum. Among the professional support occupational category HIV infection levels in this occupational category are set to rise from 9% in 2002 (1 in 11) to 12% in 2006 (1 in 8) and just under 14% in 2010 (1 in ±7). While the current infection levels are already fairly high, much of the demographic impacts in this occupational category are not significantly visible as the projections estimate that currently less than 1 per cent of this occupational category is either ill with AIDS or will die in the year from AIDS. This is set to rise to increase to over 2 per cent and 1.5% respectively in 2010, according to the projections. There is not only existing high staff turnover within given organisations, especially in the NGO and public sectors, but also large provincial disparities in the extent to which specific provinces currently have such resources within their geographic jurisdictions. In respect of these types of delivery agents, from a demographic perspective only, the impact of HIV/AIDS is likely to aggravate a situation where skills and capacities are already weak.

*Economic and policy implementation impacts of HIV/AIDS*

HIV/AIDS will have demographic and economic impact on the supply systems that will affect the cost of production of delivery the full package of benefits included as part of housing interventions, including land. The quantification of the average extra costs attributable to HIV/AIDS economic impacts was estimated at between 0.95% and 0.58% until 2006, depending on the supply system. While these costs might appear negligible, in the subsidised land and housing delivery context, they were nevertheless deemed to be tangible. The extent to which the extra costs of production will affect the implementation of the housing policy should be considered in relation to the systems' intrinsic vulnerabilities and those of the provinces in which they are applied. In the short term, these vulnerabilities were said to potentially represent a greater threat to the policy's implementation than the extra costs of HIV/AIDS. In the medium to long-term, these vulnerabilities will be significant in determining the extent to which the extra-cost of HIV/AIDS affects the financial feasibility of the housing policy. Of additional importance, was the finding that project-specific demographic impacts have the ability to disrupt project implementation, especially where critical paths roles are affected, and in those provinces in which sourcing key roles is currently difficult. The longer-term impacts will be felt primarily in terms of a reduced ability of provincial housing departments to effectively spend provincial budgets. This represents a sizeable risk as provincial budgetary allocations are aligned with the provinces' ability to spend their budget. In the long-term, this could lock budgetary allocation and expenditure in a decreasing vicious circle.