

Why Does South Africa Need a Spatial Policy? Population Migration, Infrastructure and Development¹

Catherine Cross

As of July 30, 1998, cabinet delegated to the Executive Deputy President's office responsibility for a review of the spatial implications of infrastructure and development delivery. This initiative is taking place at an important time for South Africa, and migration processes appear to be a critical factor. Large-scale changes seem to be taking place in the distribution of urban/rural population as households reposition themselves in relation to the rural poverty crisis of unemployment, violence and environmental collapse. Recent survey data from the Development Bank of South Africa (DBSA) suggest that migration, in the sense of population movement away from communities of origin and into new localities, has become the rule and not the exception for most of the rural population of South Africa's coastal provinces. Infrastructure delivery appears to be driving migration processes to a considerable extent, and migration needs to be seen against this background. Results suggest that these migration processes respond directly to infrastructure as a reason to move in situations where previous livelihoods have become untenable but jobs are not available. So far as this holds it is important for policy to provide for population movement, which will have major implications for public spending, for development delivery and for transformation and social justice.

This is a grave burden at a time of limited resources, when government is struggling to streamline public expenditure to comply with the Growth, Employment and Redistribution (GEAR) strategy. Infrastructure delivery is probably the key national policy goal, and remains critical to continued electoral success by the governing party: poverty elimination is another major goal. Locating expensive infrastructure in cost-ineffective places has become unsustainable when every rand committed to development has to return maximum results. Infrastructure has to be positioned correctly in the light of its probable effects on rural and urban population movement. In this light, new scenarios to be developed for spatial planning guidelines need to consider migration in order to ensure two results: one, that infrastructure delivery programmes become spatially rational in relation to the population movements that they influence; and two, that infrastructure delivery

programmes are cost-effective and sustainable in themselves and in terms of their effects on livelihoods creation.

The Policy Environment for Migration

The context for reviewing spatial policy in the light of migration trends is that of government's major rural goals and the new spatial policies that promote them: these comprise the Spatial Development Initiatives (SDIs), industrial policy and developmental policy, but also include job creation, housing, land and water delivery, local government, Reconstruction and Development Programme (RDP) goals and the GEAR strategy. On top, a recent constitutional court ruling now requires municipalities to deliver basic services free to the poor. All of these, and any poverty initiative that impacts investment and job creation, will affect migration, and will in turn be affected by population movement.

Infrastructure delivery so far has been reactive, taking the form of a fire-fighting response to whichever demands reach the various delivery agencies. Establishing priorities among the conflicting demands will require political will. At stake is how to structure the urban transition in a country with both urban and rural support options drying up.

The paradox of urgent demand, little payment capacity for users and lack of government resources to fill in has led to a partial impasse and an increasingly strident debate over government's obligations. Much has already been achieved (National Labour and Economic Development Council [Nedlac] 2000), though government statistics have been questioned and the majority of rural water projects are believed to have collapsed (Hemson 2000). Delivery is now relying on the private sector to provide the basic infrastructure on a cost-recovery basis, but it is increasingly clear that poor households often cannot pay the total cost of all types of essential infrastructure together.

Pushed by the constitutional court decision, free basic service delivery will become an accepted principle but will also be held back by budget and capacity limitations. The urban cost burden on government provision will rise sharply, and will further endanger full infrastructure coverage of the entire country even on a bare-bones basis. For more remote areas where delivery is off-grid and relatively expensive, servicing may either be postponed into the indefinite future, or attempted in only a limited number of places. It will be vital to get infrastructure delivery to pay off by promoting livelihoods and cutting the need for government transfer payments, but as Hassen (2000), Bond (2000) and Hemson (2000) all note, little or no attention has been given at any level to ensuring that infrastructure delivery is structured to support economy activity. Short of a way to make delivery economic, unequal access to basic infrastructure delivery looks set to remain a fact of urban and rural life in South Africa.

Planning responsibility has been settling on the district councils (Klein and Mabin 1998), and will also face the new municipalities now being demarcated (Provincial and Local Government 2000). The key problems of rural infrastructure delivery are the relation of people to land, and the difficulty of extending service grids into dispersed settlements. Planned rural plot size is a cost factor, and controls the chances for households to retain any agricultural land when and if they receive infrastructural services. All these issues are set in the context of spatial competition for investment, which consistently favours the cities over the countryside.

Migration consequences are likely to be large. Rural communities are facing both in- and out-migration which directly affects cost projections for infrastructure delivery. The spatial placement of infrastructure looks likely to be the most effective tool available to government and planning to influence ground-level migration: delivery of infrastructure acts as a powerful magnet for settlement. But past policy towards migration by the rural poor has been exclusively urban-rural, and has swung between two poles: the apartheid position that the rural poor should be kept away from the cities, and the progressive view that rural to urban migration should be encouraged so that the poor can be housed and equipped with services at least government expense. It looks likely that these choices are too simplistic in regard to the realities of migration. It is unlikely that the urban areas can actually pay to house the rural poor.

Spatial development policy and practice remains diffuse and relatively unclear. Key areas will be employment and job creation, land, water, and transport. The populist thrust of RDP policy, which would broadly work to reduce migration by promoting delivery to remote communities on grounds of social justice, has been weakened by the realignment of goals under GEAR planning, which emphasises macro-level determinants. GEAR planning looks generally likely to promote migration as households leave marginal areas and strive to reach the better provided areas. Questions also arise over how the rural household economy will work in the future if population concentration undercuts the old land economy of production and resources collection.

Local government planning through integrated development plans and the LDO (Local Development Objectives) processes set by the Development Facilitation Act (Act 67 of 1995) has moved spatial planning into a more central position, and the Department of Constitutional Development is framing delivery policy to focus a re-energisation of rural local government. Several provinces have produced growth and development framework policy documents which lay down a spatial approach to planning. Rogerson (1997) identifies the main elements of national spatial policy in relation to poverty as the manufacturing development programme (MDF), the SDIs, and local economic development planning (LED). Spatial planning in this sense appears to work by encouraging development through incentives to spread into connecting areas with undeveloped economic potential, using the transport network to define nodes and corridors.

Though the MDF is not in itself a spatial programme, Rogerson notes that it follows the spatial orientation of GEAR in directing investment from the congested Gauteng conurbation toward the less fully developed coastal areas. In the short to medium term, coastally-oriented development policies will encourage migration flows from the declining intermediate regions toward the seaboard.

A similar approach is in play with the SDIs, which try to fast-track investment into areas with potential that are linked along development corridors, relying on concepts of critical mass to focus expenditure at critical points for maximum effect. It tries to generate dynamism without government being required to pay the full costs for establishing new industrial and commercial areas. SDI initiatives are now placed all around the South African coastline, and this approach has the potential to be very fruitful in terms of cost-effective development, but in the short term it will build up large in-migrating concentrations of the rural poor. Likewise, LED as a strategy works best in areas which already have location advantage, and is unlikely to succeed alone against the drag of isolation and decline affecting many interior rural centres.

Why People are Moving: Changes in the Rural Economy

The theory of rural migration says the driving force is movement toward jobs (Todaro 1976; Harris and Todaro 1970). However, Lipton (1995) insists that the real concern is labour absorption in the rural areas as opposed to in the cities. Results from the DBSA migration research programme suggest that these models may be incomplete, and that infrastructure and public goods delivery is now a major factor in rural migration decisions. South African urban and rural unemployment have reached levels where there may be little advantage for the rural unemployed in moving to the city to look for work. To an important extent, public goods that provide basic needs such as water and energy have become a second-best substitute goal. For KwaZulu-Natal, infrastructure was the second-ranked attractor of migration behind jobs, and for the Eastern Cape it ranked third to fourth (Cross *et al* 1997, 1999).

Surveys suggest that most families in the densely occupied rural poverty sector have been driven to migrate in order to escape constraints they are no longer able to cope with. Urban and rural income sources can probably no longer be brought into balance for most of the rural poor: it appears that urban planners can no longer rely on the rural sector to absorb urban unemployment, as rural communities can no longer count on wage work in the urban areas to support families unable to live off the land economy. Migration to advantaged areas — or at a minimum to centres that offer access to services and mass transport — may not provide an optimum income, but it allows the household to cut its transport costs and its labour time loss so as to put more resources into cash earning.

Employment and Income Differentials

Above even the attraction of infrastructure, the key factor in migration appears to be the differentials in incomes and employment between source and destination areas. Cash income remains the single dominating livelihoods consideration, and results confirm migration flowing to spatial sectors with relatively lower unemployment rates. In KwaZulu-Natal, unemployment rates reflected 35 per cent in the tribal authority areas against 33 per cent in the urban shack areas. The advantaged dense rural areas showed 22 per cent, compared to 67 per cent in the removals sample. The small employment differential between the urban shacks and the rural source areas seems to have moderated the rate of in-migration, allowing Durban Metro to hold its ground on delivery needs (Cross 2000). For Cape Town, unemployment rates of 21 per cent in the metro against more than 45 per cent among Eastern Cape Xhosa-speaking residents have led to an extremely high in-migration rate, leaving delivery attempts unable to keep pace (Abbot and Douglas 1998; Cross and Bekker with Eva 1999).

While many migrants never find jobs to support their households, destination areas with less unemployment have higher economic activity and therefore more cash flow (Centre for Development and Enterprise 1996). Informal business and other non-wage livelihoods options are more sustainable in these areas than in isolated and marginalised areas with high unemployment and resulting low cash flow. Average cash incomes were also higher in the relatively advantaged areas, even in depressed areas of the Eastern Cape and the dry interior. Recorded per capita income was R370 in KwaZulu-Natal's dense rural settlements, against R257 in the urban shack areas, R310 in the peri-urban zone, and R176 in the former homelands. In the Eastern Cape peri-urban areas showed a strong income advantage, though the differential between other dense rural areas and the urban shacks and townships was less strong.

Second-Best Incentives

When unemployment is high enough to force households to turn to other ways of accessing basic needs, a number of different livelihoods-related factors involved with basic needs and with household investment strategies come to the fore. With high general unemployment, migration may become a process of moving toward second-best incentives — those which help the household to fill in livelihoods when wage income or remittances are no longer accessible.

The cluster of secondary factors which influence migration decisions includes access to sites to live on and to land for cultivation, security of tenure, business opportunities, transport and services infrastructure including schools and clinics, basic needs infrastructure including water and electricity, natural resources free of charge, and personal safety. Of these, data for KwaZulu-Natal and the Western Cape suggest that economic infrastructure — water, electricity, telecommunications and mass transport access — is perhaps most crucial. African households that had

migrated were likeliest to have obtained access to infrastructure, though this was not true for Afrikaans 'coloured' households.

Reliance on Natural Resources

Changes in migration patterns result partly from collapse of the natural resource base from which households used to draw basic needs in food, water, energy, medicines and building materials. In KwaZulu-Natal, 60 per cent of the rural households surveyed said the water supply from local rivers dried up for part of the year, or had dried up altogether. Nearly half could no longer obtain firewood from local bush forests. Levels of household production appear to be dropping steadily as households lose land resources to in-migration or move themselves into densely settled areas, though home food production remains very important to the rural poor as a second or third support option in a multiple-livelihoods strategy (May 1995, 1997). As overcrowding has advanced in the migration source areas, the decline in production on the land has led to rising dependence on selling indigenous medicines to what has become a vast urban market. This crunch on natural resources leaves households unable to meet basic needs, and seems to face many with a choice between moving and slowly starving. Households in remoter rural areas find themselves with declining incomes, far from urban centres and faced with unsustainable transport costs to reach the services and commodities they can no longer produce for themselves. This situation drives migration out of the former homelands and toward rural towns.

Recent Migration Trends

This section discusses migration trends in South Africa's coastal provinces in terms of rural livelihoods, and how the household unit uses migration strategies to put together a living under contemporary conditions. For the coastal regions there are indications that livelihoods are changing decisively, with profound impact on patterns of population movement. Densification of rural settlement is taking place on a massive scale around small towns and secondary cities. It is possible that what we are seeing now is the endgame for the rural poverty crisis, with a permanent change in the character of the South African rural economy.

Direction and Scale of Migration Flows

Significant changes seem to be taking place in migration flows in KwaZulu-Natal, Eastern Cape and Western Cape. What seems to be happening is not necessarily what is usually understood as urbanisation.

- *Rural instability is very high:* the rural population in the coastal provinces is now highly mobile. As many as half the disadvantaged rural DBSA samples for KwaZulu-Natal and perhaps two-thirds in the Cape had broken away from their rural communities of origin and joined the migration stream, for a very approximate total of 11 million mobile households in the coastal provinces. On a crude

estimate, up to six million people in KwaZulu-Natal and the Cape fell into the category that refused to rule out moving on again. In this light, the rural disadvantaged population has become much more unstable in planning terms than has been thought so far. Results suggest that once a household has broken its local ties it remains permanently more likely to move again than a settled household that has never left its community of origin.

These high levels of mobility put infrastructure delivery planning at risk, raising the possibility that infrastructure beneficiaries may move on after being supplied with services. Rapid migration also raises the demand for land, destabilises traditional local institutions and destroys social capital networks, leaving households less able to obtain access to land resources, less able to rely on community support and more than ever on their own. Risk of corruption increases as weakened communities lose coherence and the capacity to resist power figures.

- *Rural to rural migration dominates*: contrary to general belief, most of the migration stream is not going to the cities. Rural-to-urban flows are generally small compared to the much larger rural-to-rural flow. On the evidence of the sample surveys, roughly three-quarters of all recorded moves from one named place to another in KwaZulu-Natal were from a rural source area to a rural destination, and the same trend occurs in the Cape regional system.

Rural-to-urban migration in KwaZulu-Natal is likely to have fallen as the employment advantage of the regional metropole has declined relative to other provincial cities, but flows to the Eastern Cape's metropolitan cities have declined less, and flows out of the entire Cape region into greater Cape Town comprise the second strongest urban migration stream in the country. However, in comparison with rural to rural mobility these flows seem to represent only a small share, with the Western Cape Xhosa-speaking in-migration stream approximating to perhaps five to 10 per cent of what seems to be the mobile population of the Eastern Cape.²

- *Urban and rural black populations may be separating*: in KwaZulu-Natal and the Cape the urban and rural black populations may be breaking off migration links, so that gravity flow migration succeeds the earlier circulating migration model. Separation appears to be well advanced in KwaZulu-Natal, where urban migration is long established. Qualitative results suggest that the urban-born township population has a lock on most urban jobs because of better information networks and more urban experience (Cross *et al* 1997; Wittenberg 1999). Though black migration into the Western Cape is comparatively recent and has been thought mainly circular, little return migration was found and it seems that a fully settled urban population has become established more rapidly than in KwaZulu-Natal. If the Xhosa-speaking migration to the Western Cape stabilises at the urban end, it will mean two separate sub-regional African populations, one advantaged and the other marginal.

- *Source and destination areas — how migration flows*: the general direction of migration flow has been from overcrowded areas of the dry rural interior, and generally toward the coastline where economic activity concentrates. However, migration flows move toward any area which offers resources. Migrating households prefer to move shorter distances that will not involve breaking their social capital links and entering a new environment without backup support. In KwaZulu-Natal and apparently in the Eastern Cape as well, most migration takes place within local-area cells of activity. Long distance migration is more difficult, and usually goes through network connections at the destination point.

Main source areas for rural out-migration are the outlying areas of the former homelands and the large-scale commercial farming sector. Main destination areas are the peri-urban settlements on tribal authority land, areas of rural densification on public land, and the urban shack settlements. Population also flows within the former 'homelands', and back into farms, tenancy areas, and even into relocation settlements.

- *Destination areas — densification around centres*: as the rural economy in remoter areas falls apart and the rewards of urban migration also fall away, households are moving toward the smaller centres and secondary cities. With labour migrancy in rapid decline, these smaller centres now represent the rural population's main contact with the urban economy. Dense concentrations of population are nucleating around small towns throughout the coastal provinces in a new peri-urban relationship. Densifying rural areas in KwaZulu-Natal include both the large peri-urban zone located on tribal authority land to the west and south of the metropole, and dense rural settlements developing in a peri-urban relation to smaller cities and towns on the North and South Coast. In the Eastern Cape, densification is taking place on a very large scale around small rural towns as well as around the major coastal cities, and in the Western Cape is becoming established around coastal and interior towns as well as in the immediate hinterland of the Cape Town metropolis.

These flows of population appear big enough to re-shape the rural economy. They are likely to require new paradigms of development delivery for high-density rural settlement. The affordability of infrastructure demands linked to these trends is doubtful for even the larger centres, and is a serious problem in relation to marginal smaller towns where existing infrastructure is deteriorating.

- *Destinations — advantaged rural areas and wrong destinations*: movement into denser rural areas in the coastal provinces is creating large areas of rural peri-urbanisation, helping build a new rural/urban relation. Most of this population shift is economic in origin, and represents an attempt at household level to reduce costs and improve incomes by moving to areas with some levels of economic activity and infrastructure. Though many of the dense spontaneous settlements have developed around declining farm towns, most of these appear as advantaged by comparison with depressed communities of origin: some, particu-

larly in KwaZulu-Natal and the Western Cape, show strong local economies with earning potential.

The alternative is wrong destinations, or areas characterised by accumulated disadvantage, where households may move due to lack of alternatives. Apartheid's forced resettlements have scattered numerous densely settled poor communities throughout KwaZulu-Natal and the Cape, usually in remote localities without location advantage. Disadvantaged destination areas include most removals settlements and tenancy areas, as well as densifying areas around declining towns. These settlements are often destitute, and any households not trapped there by poverty and lack of information are likely to migrate again. Relocation settlements usually had some infrastructure, which has attracted migration in impoverished rural districts, and removals areas also offered what might, with irony, be called tenure security. Results suggest surprising numbers of households may have moved involuntarily, often in emergencies.

- *Destination areas — the new land economy*: movement into denser rural areas seems to have the effect of breaking a new path to income-generating household production at the same time that it cuts families off from the old land economy. Results indicate more household cultivation and stock raising in densifying peri-urban migrant communities in the Western Cape than was recorded in the exhausted and water-short rural source areas of the Eastern Cape. The difference appears to be due to greater cash flow to capitalise small-scale household production, along with access to land through squatter-gardening and in many cases access to delivered water. In KwaZulu-Natal, the highest per capita incomes recorded were found in small farming households in denser areas on the North and South Coast where land is still available along with marketing linkages.

This new household production emphasises vegetables and cash crops, and appears to represent intensification of production to adapt to smaller plots through higher value crops. Food production in the old land economy uses extensive cultivation and rain-fed staple crop production. It requires relatively large plots. Households moving away from their communities of origin will never again be able to claim as much land as they could through local birthright: migration usually means more intensive production on smaller plots, but seems capable of producing almost parallel yields. However, migrating families frequently lose all land access, and give up production.

Migration Source Areas and Circuits

The rural household's migration options depend on the travel experience of its members, yielding personal networks of contacts which supply information and sponsor moves into new communities.

Migration appears to have poured out of the former homelands during apartheid. The outflow saturates the data: during the lifetime of respondents, the representation of the tribal authority districts in KwaZulu-Natal appears to have

dropped from 41 per cent of the provincial sample total to 20 per cent, a drop of over half: of the household heads born in the homelands, more than half had moved out and were living in other types of settlement by the time they were interviewed: outflow from former Transkei may be even higher. Over the lifetime of respondents, migration flows seem to have reduced the former homelands share of the coastal provinces population significantly.

The other main source area for rural migration is the farm sector. More than three quarters of the KwaZulu-Natal farm-born respondents said they had moved away from their place of origin, and most had moved repeatedly. Numbers of moves made under emergency conditions were extremely high. On the available survey evidence, the disadvantaged population on large farms in KwaZulu-Natal has dropped about 30 per cent, in the Eastern Cape about 27 per cent and for the Afrikaans 'coloured' population in the Western Cape about 32 per cent.

- *The homelands circuit*: flow from the former homelands has gone preferentially into the peri-urban tribal authority areas and into the urban shack areas, and more recently into densifying rural areas. Building up through information linkages established by labour migrancy, the total population of the dense rural areas appears to have increased by 120 per cent or more during the lifetime of the respondents, and is now rising more rapidly than that of the shacks and peri-urban areas. Dense rural areas are now the likeliest destination for migrating rural households outside the immediate orbit of the major coastal cities. The settlement sectors on this migration circuit connect the large poverty reservoir of the former homelands to a range of destination areas which all offer better incomes than the main source area. Chances for successful migration on this relatively urbanised circuit appear fairly good.

- *The farm circuit*: the other main circuit for population movement links the large commercial farms with the tenancy areas, relocation settlements, missions and poorer farming towns. Unlike the homelands circuit, it is based on a lack of options, and connects to poverty rather than to opportunity. It carries less migration, and is powered mainly by job shedding and evictions from large farms.

For farm families in the migration stream, the tenancy areas and removals areas were most active in KwaZulu-Natal, but in the Eastern Cape the active sectors were relocation settlements and interior farm towns with fringes of densifying settlement. Farm households using this circuit rarely have the experience of labour migration which would connect them with areas of greater economic activity. Instead, they move by default toward local towns where they normally shop and look for services while living on the farms. Experience does not give them a route map which would lead to advantaged urban or peri-urban areas, or to densifying rural areas with location advantage. Though some farm families in KwaZulu-Natal were able to reach Durban, very few from the Eastern Cape were able to make the move direct to Cape Town: they went instead to bad-quality

destinations. Movement on this circuit appears to entrench marginality, and is a direct product of apartheid land planning.

Formulating Relevant Policies

Migration by the rural poor in South Africa is still largely seen as rural to urban, and circulatory: that is, that rural households move to the cities on a temporary basis to earn wages, but later return to their home communities (Mabin 1989). To put spatial policy on a sound basis, there is a need to revise these assumptions. Certainly, results from the DBSA research programme suggest that large-scale migration flows no longer fit this paradigm, if they ever did.

The policy-making process needs to address the scale of population movement, the direction of flow, the underlying causal factors and the probable outcomes in the medium and long term. Approaching these objectives means not only identifying trends, but also developing an objective and subjective understanding of the migration process from the standpoint of the migrating household.

There are probably three main causes of rural migration. All contribute to the impact of the most immediate reason for migration, which is household income collapse on a wide scale, namely high and simultaneous rural and urban unemployment, the collapse of the natural resource base in many areas and declining stocks of social capital, meaning loss of the social networks needed to backstop household income failure.

Both the apartheid and progressive policy positions on rural migration have assumed that the rural poor want to migrate to the cities. Surveys suggest this is not necessarily the case. For KwaZulu-Natal, 85 per cent of the DBSA respondents living in rural areas had never considered moving to the city, and in the Eastern Cape it was 76 per cent. In KwaZulu-Natal's bitterly poor land reform pilot area (Cross and Mngadi 1996a), over 90 per cent of respondents wanted to remain rural. Rural/rural flows underline the point that the poor migrate in terms of how they see their best opportunities and what information and contacts they have available. Today, it seems clear that the poor still migrate to the cities only when they see a clear advantage and have the means. The experience of Cape Town makes the point that even a relatively prosperous urban centre with a strong policy base flounders when it tries to house and service high levels of rural inflow. Realistically, there is no chance of solving the housing and delivery crisis of rural poverty by transferring the rural poor to the cities. Nor do the majority of the rural poor seem to see their future in the urban sector.

The problem of providing housing and infrastructure via government budgets remains. Infrastructure now has to provide basic needs: with both job access and natural resources access falling, it appears that many families have become what the International Organisation for Migration has called 'environmental refugees', who move because they can no longer cover their basic needs in their home areas.

Establishing the planning and delivery priorities needed to make spatial development work effectively will need a strong policy lead from central government. At present, the delivery process is often piecemeal and *ad hoc*. Costs escalate and budgets are often spent for limited results. A central policy on priorities is needed to pull this fragmented process together and focus a workable spatial vision.

With half to two-thirds of the rural population in the migration stream and perhaps a third likely to move on, the role of infrastructure as probably the main instrument of spatial policy needs to be seen clearly and used carefully. Policy has limited capacity to create jobs, but nearly complete control of infrastructure delivery.

Spatial policy needs to take on population movement, and to prioritise rural secondary centres and coastward flows as well as remoter areas with potential. The fact that many of these smaller centres seem to provide higher incomes than the cities suggests that the potential for spatial initiatives in the rural sector is large. However, rural towns in depressed areas clearly have problems meeting the needs of an in-migrating poverty sector, and maintaining opportunities in balance with migration flows needs to be one of the main objectives of spatial policy.

New legal strictures enforcing infrastructure delivery and the growing recognition that the poor cannot afford accumulating charges are likely to be felt on the ground as steeper differentials between areas with and without delivery. Steeper differentials will promote migration and instability.

Radical changes are going on in the rural economy. It is clear that formal jobs are not going to be available to support all households in the migration stream. Faced with limited resources and demands coming from many other sectors of the economy, it is likely that rural development policy will have to rely on households and not only on business and government. Spatial policy will need to conceptualise delivery as livelihoods-driven: that is, directed toward giving households the residential sites, infrastructure, tenure security and access to other resources in order to start household accumulation of assets and promote household investment. Migration-related pitfalls or risk factors in this kind of planning relate to the settlement process as well as to economic and physical delivery considerations. In a context of rapid movement and high demand, these include, first, settlement pressure against low-density land uses, including cultivation, grazing and natural resources commons; and second, weak institutions controlling settlement, leading to weak *de facto* tenure rights, confused conditions and difficult delivery. Not only infrastructure but also tenure security policy is needed.

Migration

Addressing rural infrastructure bottlenecks from the standpoint of migration directs attention to the process by which households move, where they are trying to go and what resources and expectations they have to work with. The key issue will be planning for destination areas and rural densification. Most rural flows are

going to either advantaged or disadvantaged rural destinations, and not the to main urban areas.

Migration flows respond rapidly to incentives. Extreme unemployment rates are creating a context of migration to second-best or default incentives where jobs are not available and infrastructure access is pivotal to household migration decisions. At the same time, migration also flows to areas with higher cash incomes and more economic options. Infrastructure delivery promotes the informal sector, carrying potential multiplier effects. Even after apartheid, involuntary migration is still a factor. Households dismissed or expelled from farms or elsewhere are often forced into the migration stream with only the default option of the nearest farm town. This concentrates poverty and need around failing small towns.

Better delivery in the source areas — mainly the former homelands — would help to open up livelihoods opportunities at household level and could hold down rates of population movement. But while it is important that households are not compelled to migrate when they do not want to, cost factors for rural infrastructure remain high. A focus on the densifying destination areas may turn out to be easier and cheaper, and can contribute substantially to increasing the viability of the rural towns and cities that carry the main burden of local economic development. But prioritising the destination areas would increase migration rates in the short to medium term, with more strain on destination areas and decreased viability for the source areas. Results for Cape Town suggest that very high rates of in-migration risk overwhelming local government delivery capacity, and for small towns it is possible that very rapid in-migration may have potential to cripple the local tax base by encouraging out-migration of formal business. There is a critical need to investigate sustainable in-migration levels for destination areas, as well as sustainable out-migration levels in source populations.

Livelihoods and Institutions

Entering the migration stream breaks the household away from conservative economic priorities. With a focus on movement out of areas of dispersed settlement and into densification, spatial policy needs to take account of the change in livelihoods structures that follows.

The migration process is essentially one of individualisation. Households leave extensive land and grazing entitlements behind and move further into the cash economy. Results suggest entrepreneurial motivation increases, leading to greater potential engagement with development and business. In this way, high rates of migration also offer opportunities as well as risks. The mobile rural population is a typical migration constituency: younger and more educated, more committed to the cash economy and more entrepreneurial than the settled population that has never moved. Well-targeted spatial policies in destination areas will meet with a strong developmental response. But if the mobile rural population becomes in-

creasingly excluded and isolated around declining small towns, its economic potential will be wasted. Increasing rural exclusion is a major crisis.

In the short term, the migration process means loss of resources. The migrating family loses social capital in the form of networks and social connections that formerly backstopped shortfalls in household income, and also through loss of network contacts that open the way to urban centres and establish rural/urban linkages. For some time after they arrive, in-migrant households remain highly vulnerable to economic shocks. The same process affects institutional coherence. Communities that form in destination areas are often low in cohesion, turbulent and unstable, with less societal control over settlement. For the source areas, continuing out-migration strips human resources and can make infrastructure delivery less viable. These processes contribute toward separating the urban and rural populations and marginalising the rural poor.

Infrastructure delivery in high-pressure settlement areas with rapid in-migration of the very poor comes up against affordability constraints on the one side, and the need for fast, well-managed, accountable delivery to cope with high inflow levels on the other. At another level, there are struggles between attempts to provide cultivation land and water for production and other non-household income-generating uses, against the pressure of residential demand which is likely to compete with production land uses. Water delivery specifically is critical, and needs to engage rather than reject livelihoods issues through small-scale irrigation. Planning for spatial development in a context of high migration levels and an unstable population needs to build livelihoods priorities actively into delivery, and cannot concentrate narrowly on housing and infrastructure.

Conclusion

Migration findings suggest that the infrastructure delivery problematic has two axes: first, how to formulate spatial policy and structure delivery of infrastructure in relation to rural-to-rural migration, and particularly for the dense destination areas; and second, how to look at re-establishing rural/urban linkages through policies that will minimise rural exclusion if not immediately increase access to jobs. An ancillary question is how to increase developmental response from the grass roots, by enlisting the individual mobile household's capacity to invest and to generate income for its own members.

Rural exclusion exacerbates both poverty and out-migration. Migration characteristically flows along transport corridors connecting source areas as catchments to destinations, and can be expected to orient quickly toward any areas that begin to receive infrastructure on scale. A possible approach might be to make use of the spatial planning corridor model, by identifying and prioritising existing transport corridors which connect the coastal cities with the rural sector. Areas located off the corridor's transport line would carry lower levels of service, with supporting links through periodic market networks, as proposed in the RDF document.

This approach to spatial policy would move infrastructure delivery out of the reactive category as far as possible. Better rural/urban linkages could reduce the exclusion effect of high urban unemployment on rural migration patterns, by encouraging rural households to maintain urban access and information flows. The social capital needed to overcome rural exclusion is maintained by people travelling back and forth regularly.

At ground level, insecurity is a major factor in suppressing household earning activity. Households trying entrepreneurial activity in turbulent destination areas now are often held back or frightened off by criminal activity, factional politics, land insecurity or other forms of risk and insecurity: the old rural areas under tribal authority administration came across in the DBSA study as the least insecure, but the densifying destination areas were most insecure. Institutional aspects of land allocation and tenure securisation need to be reviewed in depth in order to stabilise these processes. Supporting the informal sector will be central.

On the delivery side, non-residential land has become problematic as delivery agents try to cut costs. Larger plot sizes which can include a garden make connecting to the grid much more expensive. However, the unemployed poor may not be able to survive without some cultivation land, while small farming around destination towns is one of the most viable options for livelihoods and local economic development: alternatively, allowing the poor land to settle their family members and connections re-establishes social capital. The planning process needs to tackle how to combine livelihoods requirements — including land and water for small farming — with standard delivery of services.

In the future, more and more economic migration can be expected in rural areas trying to resolve the inherited demographic imbalances of apartheid. With policy still being formulated, it remains an open question whether provision of infrastructure alone will hold mobile households in place if the other components of a strong mixed household economy are not delivered at the same time. Convening a national study group is likely to be necessary to come up with spatial planning approaches and new delivery models to cope with the effects of population migration on a massive scale. Policy needs to relate infrastructure provision to livelihoods, while engaging with a very unstable rural population whose economic support options have narrowed to a fraction of what they were 10 years ago.

Notes

1. This article is based on a research paper originally prepared for the Cabinet Co-ordination and Investment Cluster review process, and was presented at the national workshop for contributors in Pretoria on April 21, 1999. It draws on the DBSA migration research programme for the coastal provinces, carried out by Stellenbosch University Department of Sociology (under the directorship of Professor Simon Bekker) and by the Rural Urban Studies Unit at University of Natal (under the direction of Catherine Cross).
2. The initial estimate of migration from Eastern Cape to Western Cape was taken directly from the national October Household Survey (OHS) for 1995, the latest available year (Stats South Africa 1998). This lifetime estimate of 240 000 would suggest a provincial level of three to five per cent of what seems to be the Eastern Cape's mobile population. However, closer inspection

of the OHS database in connection with the SGIID (Spatial Guidelines for Infrastructure, Investment and Development) research suggests strongly that this estimate is flawed, in that the weighted estimate of the number of interviewees claiming to have come to Cape Town from the main Western Cape source district appeared as several times the total Xhosa-speaking population of the district in question. A significant share of the Xhosa-speaking respondents claiming to be born in the Western Cape may actually have been in-migrants from the Eastern Cape who were uneasy about reporting their true origins to government interviewers in a setting seen as potentially politically hostile.

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