

Of Hedgehogs and Foxes

Infrastructure Delivery and Employment Creation in South Africa

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by

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1. Introduction

There is a line in the works of an ancient poet that reads “The fox knows many little things, but the hedgehog knows one big thing”¹. Scholars have differed on the exact meaning of these dark words. Taken figuratively, these words provide a comparison of the deepest differences that divide economists on the question of infrastructure delivery. On the one hand, many argue for a narrow vision of infrastructure delivery, as being about meeting basic needs within fiscal constraints. Moreover, they argue that accelerating delivery will require the introduction of private sector management and private financing. On the other hand, there is a growing body of literature that is focussed on understanding infrastructure delivery as part of a programme for eradicating poverty, reducing income inequality and enabling employment creation. This school of thought prioritises the understanding of social, economic and human development linkages in infrastructure delivery. This paper argues that the delivery of water and sanitation, housing, energy and roads must be assessed through the capabilities they provide, rather than through a narrow focus on meeting delivery targets.

Today, development economics has embraced a wider set of considerations than simply meeting basic needs. Recent studies have suggested that poverty is best understood as being excluded through “lacking resources” (Townsend, 1985), or the absence of certain “capabilities to function” (Sen, 1993). The importance of these emerging approaches – which have many variants - is that they focus evaluation of government programmes away from simple figures towards understanding the wider impacts on society. Moreover, they place the issue of directly and indirectly creating employment squarely within the ambit of public action.

Drawing on this approach to assess public action, this paper explores two themes. Firstly, an assessment of the economic impact of infrastructure delivery is provided. This analysis focuses on income security and employment opportunities. In arguing for a wider set of development objectives to be met through infrastructure delivery, the question of whether the public sector has the capabilities to meet a wider set of outcomes is raised. The question of public sector transformation (and in particular the ownership of state owned assets) is then succinctly addressed as the second theme.

1.1. Scope

Before undertaking this assessment, the term ‘infrastructure’ requires some clarification. Following those who speak of human and social capital, one could easily see education and health and many other goods as part of the infrastructure needed for development. (Budlender, 2000). This paper uses the term ‘infrastructure’ to refer to the more traditional meaning of ‘infrastructure’ (e.g.,

¹ This quotation is taken from the Greek poet Archilocus. The extract is the translation of Isaiah Berlin in ‘The Hedgehog and the Fox’ in *Russian Writers*, (Penguin Books: Middlesex, 1978)

water, sanitation, and housing), but points to the relationships between infrastructure delivery and wider developmental outcomes.

Moreover, this paper concentrates on those forms of infrastructure classified as basic needs. These include water and sanitation, housing, energy, and roads. This categorisation is used as a tool for analysis, to overcome different meanings that are attached to 'social' and 'economic' infrastructure. (See Department of Finance, 1998 and, for a different definition, the Development Bank of South Africa, 1998). Public works programmes are also not extensively covered in this paper.

2. Infrastructure's Potential

The contribution of infrastructure delivery to economic growth and job creation is well established. Studies point to the following benefits of infrastructure delivery:

- **Lowering of transaction costs:** Infrastructure lowers transaction costs by facilitating flows of information and goods, and interactions between markets;
- **Creation of economic linkages:** Infrastructure investment creates the potential for economic linkages. In particular, the ability to move goods makes investment viable;
- **Concentration of economic activity:** The provision of infrastructure concentrates economic activity spatially, thus supporting backward and forward linkages;
- **Responsiveness to change:** Depending on the quality of infrastructure delivered, economies undergoing restructuring are able to respond to shocks, competitive pressures and value-added production;
- **Improvement of productive capacities:** Access to infrastructure services can improve the capacities for producing goods and services in communities;
- **Creation of wealth:** Irrigation systems, transport routes and other infrastructure outcomes hold the potential for creating viable assets and markets;
- **Creation of jobs:** Infrastructure expansion creates jobs during the construction phase, and for continuing maintenance.
- **Boosting of demand:** Infrastructure expansion also boosts demand in the economy, thus supporting forward linkages.

The ambitious infrastructure extension programmes undertaken by the government thus hold a wider potential. The delivery of infrastructure could lead to significant improvements towards ending the vast poverty levels and wide income inequality experienced by people in South Africa.

3. Trends in Delivery and Investment

A picture of infrastructure delivery and investment since the first democratic elections is beginning to emerge. President Thabo Mbeki provides an apt summary of this experience, by indicating that:

The good that has been done puts into sharp relief everything that has still to be done to extricate the millions of our people from the

conditions of poverty, racism, sexism and violations of their human rights.

(Mbeki, 2000)

This section outlines the quantitative improvement in delivery and investment patterns in infrastructure.

3.1. Achievement and Need

The establishment of democracy brought with it the challenge of eradicating poverty, reducing income inequality and creating jobs. *The Reconstruction and Development Programme: A Policy Framework* (ANC, 1994) articulated the intentions of the first democratic government in meeting these challenges. Whilst a great deal of disagreement exists on whether the RDP is actually being implemented, a series of government policies and programmes were initiated under the banner of implementing the RDP (see Adelazadeh, 1996).

The quantitative results of these programmes indicate that the government has achieved a great deal in its first term of government. However, there is a widespread recognition that needs remains acute. Table 1 summarises some of the key achievements of the government, and the need that still exists in terms of household infrastructure delivery.

Table 1: Achievement and Need for Selected Services (1994-1999)

	Achievement	Need
Housing	Approximately 900 000 houses delivered	Estimated at 2,9 million
Water	73% of people have access to water	Estimated that 11 million people do not yet have access
Electricity	1, 9 million connections since 1994	57,4% of rural communities and 37% of urban communities not electrified

Sources: The information is drawn from various government reports and from Statistics South Africa Household Surveys.

3.2. Infrastructure Investment

The substantial gains in coverage have, however, occurred in a climate of fiscal restraint. Investment in infrastructure primarily occurs through two key means: firstly, through direct transfers from the fiscus in the form of capital subsidies; and secondly, to a lesser extent, through indirect subsidies for operating expenses. Table 2 below indicates government budget trends in terms of capital and personnel investment directly from the fiscus. The table indicates a stabilisation of capital and personnel spending.

The trade-off implicit here is thus between fiscal policy and service delivery, and not between recurrent spending and capital spending, as personnel spending

remains constant – and actually decreases in real terms – during the period under review.

Table 2: National Expenditure (1997-2000)

	1996/7	1997/8	1999/2000	2000/1
National				
Personnel expenditure	41%	41%	41%	40%
Capital	6%	7%	6%	6%
Other	53%	52%	53%	54%
Total	100%	100%	100%	100%
Provincial only				
Personnel expenditure	53%	56%	59%	58%
Capital	7%	8%	7%	8%
Other	40%	37%	34%	34%
Total	100%	100%	100%	100%

Source: Cosatu Budget Submission 2000/2001

In addition, capital expenditure in the public sector also occurs through state-owned enterprises. Table 3 below indicates the trends for spending between public and private investment. It indicates the trends in gross capital fixed for formation between 1992 and 1999. The table indicates that public corporations investment in fixed investment has been larger than spending undertaken by central government.

Table 3: Gross Capital Fixed Formation (1992-1999)

	1999		% Change		
	R millions	% of Total	1992 - 1994	1994 -1997	1997 - 1999
General government	13 997	15%	-7%	16%	-3%
Public corporations	15 798	16%	-18%	40%	25%
Private business enterprise	66 336	69%	18%	25%	-7%
Total fixed capital formation	96 131	100%	8%	25%	-2%

Source: Horton, 2000. Figures from the Reserve Bank Quarterly Report.

Gross capital fixed formation provides an indication of spending in the productive sectors of the economy. Significantly, since the introduction of the stabilisation programme in 1996, general government spending on fixed investment has decreased. However, spending by public corporations has shown large percentage increases.

The increased levels of capital spending in public corporations are attributed to mandates to improve access to infrastructure services. For instance, the Electricity Supply Commission (ESKOM) has a compact with government to extend connections over a multi-year period. The financing of increased financing has been primarily through debt financing or through increased levels of equity (primarily in TELKOM). However, investment within the different public corporations differs markedly (see Naidoo *et al*, 1999).

3.3. Maintenance Costs

The maintenance of infrastructure is equally important as capital expenditure. Table 4 below indicates the costs for rehabilitation of roads over time. The table indicates that the costs of maintaining roads increase exponentially over time.

Table 4: Costs for Rehabilitation of Roads

Road Quality	Time Period for Repair (Approximates)	Cost per km
Good	2-3 years	0,1 mil/km
Good	4 years	1,8 mil/km

Source: Department of Finance, 2000.

The most recent calculations of maintenance costs for infrastructure delivery point to a large gap between projected spending and required levels of spending to maintain infrastructure (see Table 5). The question of investment must further be posed within the context of the call for ‘accelerated service delivery’. The financial commitment required to eradicate maintenance and rehabilitation backlogs in the provision of infrastructure has been estimated as between R47-53 billion over a five and ten year period. The allocation of finances to achieve these goals, however, indicates that a shortfall of R 10.6 billion will occur in current fiscal policy.

Table 5: Backlogs in the Maintenance of Public Infrastructure

Department	Total backlog and estimated years of spending	Annual requirement not provided for (R billion)
Public Works	R 8,8 billion over five years	R 1.5 billion
Health	R 13 billion over ten years	R 2.4 billion
Education	R 14-20 billion over nine years	R 1.6 billion
Municipal and rural infrastructure	R 45-77 billion over five years	R 10.0 billion
Transport	R 38 billion over ten years	R 5.1 billion

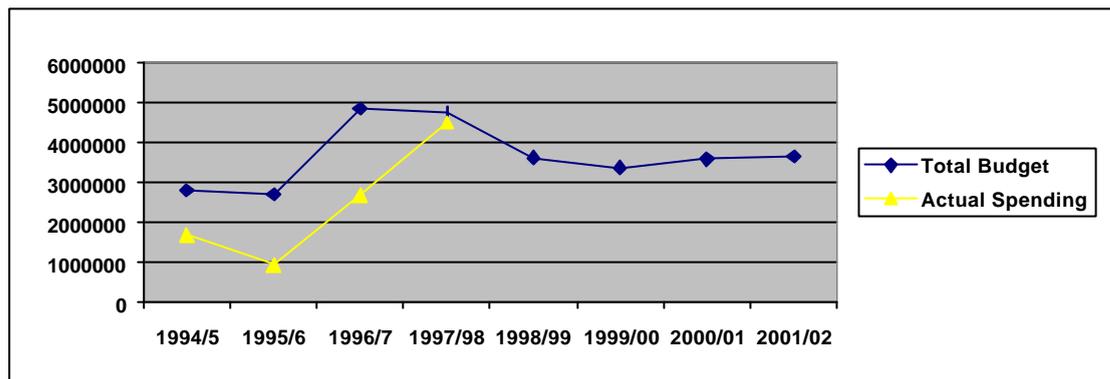
Source: Department of Finance, 1998.

An encouraging sign is that the capacity of the public service to spend capital resources has increased significantly. Chart 1 below indicates the differences

between actual spending and budgeted spending from 1994/1995 financial year to the 1997/1998 financial years.

The graph records the spending for all infrastructure programmes undertaken by the government in its household infrastructure cluster. However, concerns regarding the ability of government departments to spend remains, with large levels of under-spending remaining a problem.

Chart 1 : Budget vs. Actual Spending for Household Infrastructure (1994/1995 - 1997/1998)



4. Basic Needs or Improving Capabilities

The outcomes of government activities must, however, be assessed through their impact on poverty and income inequality. This section focuses on the impact of focussing on the relationship between basic needs and improving productive capacities for economic growth in local income areas. A short assessment of the basic needs approach is provided and is followed by an analysis of developmental outcomes of meeting needs in a climate of fiscal restraint.

4.1. Basic Needs in Perspective

The question of basic needs has elicited a rich and textured literature. Sabine Alkire, in an excellent review of lists of basic human needs, identifies two understandings of the term 'basic'. She writes:

The first [understanding of the term 'basic'] is to think of all capabilities, physical and emotional and intellectual and spiritual, and find the smallest number of different kinds that nonetheless map the whole range of capabilities. The second is to consider a subset of the first - namely, those capabilities which are 'basic' to human survival, dependent on material resources, and prerequisites to any full human life. The Basic Needs Approach has examples of both approaches.

(Alkire, 1997)

The RDP argues that infrastructure provides both basic needs and economic multipliers². The development of policy in South Africa thus reflects both senses of the basic needs approach. On the one hand, many policy documents seek to link infrastructure delivery to improving capabilities and opportunities. *The White Paper on Housing*, for instance, argues for compact development and motivates housing policy on the basis of its wider implications for job creation. The ends of policy - but not the practice - are to use low-income housing as a means to improve capabilities and catalyse forward linkages. On the other hand, *the Municipal Infrastructure Investment Framework (MIIF)* prioritises meeting basic needs, and commits the government to meeting basic levels of municipal services to all within 10 years. The criterion for the programme is largely based on affordability of services, and little consideration is given to economic and social outcomes of delivery. As such, the focus is on delivering a basic level for survival.

Development economists have however questioned the validity of the basic needs approach globally and in South Africa. One approach has been to focus on capabilities. Amartya Sen thus argues that:

Poverty, in this view, is not ultimately a matter of incomes at all; it is one of a failure to achieve certain minimum capabilities. The distinction is important since the conversion of real incomes into actual capabilities varies with social circumstances and personal features.

(Sen, 1985)

And also that:

Ultimately, the process of economic development has to be concerned with what people can and cannot do (e.g., whether they can live long, escape avoidable morbidity, be well nourished, be able to read and write and communicate, take part in literary and cultural pursuits and so forth). It has to do, in Marx's word, with 'replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstance'.

(Sen, 1983)

The implications of considering capabilities as opposed to basic needs have profound implications for public action and policy evaluation. This approach requires governments to assess, amongst others, issues of income security, forward linkages in delivery, health linkages and the gender implications of its policy choices.

However, the focus on capabilities has been criticised as being "operationally vacuous and hence in all likelihood will be misunderstood and misoperationalised

² Basic needs and economic multipliers of infrastructure are however discussed in two separate and mostly unrelated sections.

by practitioners” (Alkire, 1997). Supporters of the capabilities approach have responded that delivery programmes have a responsibility in their design and implementation to ensure sustainability, and not just ensure successful case studies.

The question of implementation, indeed of ‘accelerated delivery’, is central to the government’s pledge to the citizenry. The basic needs approach is thus a tempting proposition. The government at regular intervals can point to improvements in the delivery of a range of infrastructure services. However, even within the government, there is greater recognition that providing a basic need will not necessarily impact on poverty and income inequality. The policy issue is not whether a focus on capabilities is operational, but is rather about developing programmes and interventions that improve the capabilities of the poor.

4.2. Affordability and Quality

The central feature of government policies is the tension between accelerated delivery and the availability of adequate financial resources for delivery. Under the current macro-economic framework, the budget is subjected to ever-increasing fiscal limits on spending. The outcome is that spending on infrastructure and other capital investments are subjected to ever reducing budgets.

Under the strictures of fiscal limits, the affordability of services becomes a primary consideration for government policy. These are:

- **National Budget:** Under the current fiscal framework, most government departments are forced to ‘do more with less’. As such, full coverage programmes tend to attempt achieving them in an environment of fiscal restraint.
- **Household Affordability:** Government programmes have a strong focus on cost-recovery. Using a two-part tariff structure, government subsidises the capital costs for most programmes. The operating costs are to be borne by households, but the indigent household qualifies for an additional subsidy from national government.

The strong focus on affordability is translated into a commitment to national government providing a basic level of service. Table 6 outlines the differences between basic, intermediate and full levels of service.

Table 6 : Levels of Infrastructure Services

	Basic	Intermediate	High
Water	Communal stand pipe	Yard tank or yard tap	House connection
Sanitation	Ventilated improved pit latrine	Ventilated improved pit latrine or simple waterborne	Full waterborne
Electricity	8 amp electricity supply	20 amp electricity supply	60 amp supply
Roads	Part gravel, part graded	80% graded,	Paved

		20% gravel	
Storm Water	Open, lined where necessary	Lined open channels	Piped underground
Solid Waste	Communal removal	Curb side removal	Curb side removal

Source: Municipal Infrastructure Investment Framework (MIIF)

Note: The MIIF provides 3 indicative packages for both basic and intermediate services. Here a consolidated version of the indicative packages is provided.

The capital and operating costs for the different service packages are significantly higher as one moves from basic to intermediate, and from intermediate to high levels of services. Table 7 indicates the costs for both rural and urban areas, under the different service packages.

Table 7: Installation and Operating Costs for Services

		Basic	Intermediate	High
Urban Installation Costs	Total cost (Rands)	8 279	14 253	20 751
Urban Operating Costs	Costs per household per month (Rands)	50	95	163
Rural Installation Costs	Total cost (Rands)	4 665	11 791	17 397
Rural Operating Costs	Costs per household per month (Rands)	16	72	160

Source: Bond, 1997.

Delivering 'some for all' is thus a tempting prospect from a budgetary viewpoint. The provision of basic levels of services ameliorates the tension between accelerated delivery and stringent fiscal limits.

However, from a developmental perspective the levels of service can be questioned. The delivery of low levels of services leads to continued environmental degradation, as the services provided do not support sustainable usage of environmental resources. Some also argue that Ventilated Improved Pit-Latrines (VIPs) will lead to the pollution of ground water. (See Bond, 1998 for environmental implications of VIPs and for a counter argument, see Jackson, 1997).

A more substantive criticism of the delivery standards relates to the economic opportunities that basic levels of services provide. The provision of 8-amp electricity is a good example of this. The 8-amp supply provides sufficient energy for lighting and other small requirements such as radio, television and fridge. The supply levels do not support cooking or heating (Department of Constitutional Development, 1998b).

The provision of a regular supply of electricity – with the required capacity – is however a requirement for investment in many areas and for local initiatives. The provision of low levels of electricity is thus a structural limitation to increased economic activities in poorer areas. Photovoltaics (i.e., a form of non-grid electricity) can support small-agricultural projects (EDRC, 1998). The current low levels of voltage provided in electricity extension projects, therefore, do not support a vibrant local economic development strategy.

Moreover, the delivery of electricity has gender implications. The current low levels of voltage provided for off-grid electrification do not support cooking and heating. As such, women - who traditionally perform these services – find that their lives are not significantly improved. However, the role of energy in women’s lives is not simply about cooking: wider questions about the impact of energy on women’s roles in the economy must be assessed (James and Simmonds, 1998).

Infrastructure delivery standards thus are based primarily on affordability. In the delivery of even these low levels of services, demonstrable health and social benefits might be achieved. However, the levels of services provided are insufficient to support economic activities beyond subsistence level. As such, infrastructure delivery is failing to catalyse productive capacities in communities that are recipients of government’s delivery programme.

The outcome of the focus on basic levels of service is that productive capacities associated with infrastructure are not developed. In many respects, the current policies of the government lack a sensitivity to ensuring sustainable livelihoods and wealth sharing (or creating mechanisms for these). Providing higher levels of service will not, in and of itself, create sustainable livelihoods, but infrastructure provision is a necessary condition to ensure greater sustainability.

The policy shift required is a large one, which shifts government delivery away from a norm-based delivery system to an application-based system. The box below indicates the differences between norm based delivery and application based delivery.

Box 1 : Application and Norm Based Delivery

	Application Based	Norm
Description	Guided by needs within a defined community	Guided by service standards (e.g., 25 litres of water a day)
Advantages	Bottom up approach and builds a responsive state	Aims for equity across disparate communities
Disadvantages	Communities may not be well informed, well organised or not be able to submit an application	Top down process

Source: CASE and ILO

The shift requires four improvements in the government's infrastructure expansion programme. These are:

1. **Greater linkages to integrated development plans:** Higher standards of delivery will need to be linked to attempts at integrated development plans if poor communities are to use infrastructure capacity to support sustainable livelihoods.
2. **Improved facilitation and co-ordination:** Improvement of public sector capacity to facilitate public and private investment that follows on initial public investment is required to ensure that units delivered catalyse delivery. Moreover, co-ordination between government departments to co-ordinate various activities has the potential to cluster development investment.
3. **Focus beyond basic needs:** The government needs to focus beyond just providing basic needs. A recent experience in water, for instance, indicates that many water projects have broken down due to issues related to affordability and management of the services provided. As such, a focus on ensuring that economic activity is stimulated and that capabilities are improved could lead to a more integrated approach to addressing the needs of the poor.
4. **Sustainable Livelihoods:** Government programmes must focus on building sustainable livelihoods in infrastructure programmes. This is particularly important if the trade-off between affordability and levels of services is to be resolved.

5. Spatial Choices

Improving the spatial choices of government is particularly important for sustainable delivery. 'Integrated' or 'compact' development argues that significant benefits are associated with agglomeration. The benefits of agglomeration usually include:

- improved access to services and goods;
- increased population thresholds that support business activity;
- connectivity to transport linkages for the movement of goods and people;
- shorter travelling distances and consequently a reduction of travelling costs for workers; and
- timesaving for women.

Government policy recognises the benefits of 'compact' or 'integrated' development. The provision of housing is the most important of these policy choices. Government policy argues that the provision of new housing will lead to spatial reconstruction and economic recovery. The use of housing to integrate cities and towns underpins the idea of housing as a 'lead sector'. Low-income housing, it was argued, provided the government with the opportunity to intervene in the property market and to dismantle the apartheid spatial form.

The apartheid spatial form - guided by racial segregation - fragmented areas and promoted lower densities, thus reducing the thresholds for business activity (Dewar

and Uytenbogaardt, 1991). In line with a commitment to use public sector resources and investment as a catalyst for creating viable local economies, local authorities have developed many proposals based on the philosophy of integrated development planning. Integrated development planning aims to increase densities, co-ordinate public investment, encourage business development and link transport and land-use planning. Housing delivery, in this planning approach, is aimed at economic development of townships and the reconstruction of space (Harrison *et al*, 1997).

Despite these often highly sophisticated integrated development plans, housing delivery has not achieved its promise. Current housing delivery perpetuates urban sprawl, which further exacerbates the position of the poor. The continuation of the trend of building on the periphery of townships ensures that the benefits of agglomeration are not realised.

The central reasons for these trends are:

- **Tax-Service Relationship:** The pressure to deliver one million houses has run concurrently with an ever-tighter fiscal stance from the government. The impact has been that the housing budget has declined by 16,2% between 1997 and 2000. At the same time, the government has attempted to deliver housing at scale. The outcome is that the government has pushed to meet its quantitative targets, but the qualitative outcomes of housing have not been reached.
- **Land Pricing:** The government has been unable to subsidise the delivery costs, through the release of well located land either through expropriation or through the rapid release of government owned land. The impact of this has meant that the government has not yet intervened in the supply of land in an integrated and sustainable manner.
- **Private sector led development:** Private sector contractors inordinately influence housing delivery. Current practice reveals that a large number of housing approvals emanate from the private sector. The private sector however has as a primary aim the reduction of costs. As such, the locational choices in many of these proposals do not have a sustainable development perspective.
- **Declining value of the subsidy:** These trends are reinforced with a significant decline in the real value of the subsidy. The declining value of the subsidy has meant that the government and private sector developers have sought to reduce the costs of housing delivery.

Housing delivery remains the key lever at the government's disposal to ensure forward linkages. Moreover, housing delivery leads other government investment (e.g., schools, clinics, business sites). The impact of housing practice however indicates that spatial choices militate against forward and backward linkages emerging.

6. Type and Quality of Growth

Infrastructure expansion has also closely been associated with economic growth in South Africa. On the one hand, economic growth and development was premised on boosting domestic demand through infrastructure expansion. Loosely organised around the term of 'infrastructure led growth', the delivery of housing, water, sanitation and roads was seen as kick starting the economy (MERG, 1993).

On the other hand, others have argued that growth will come through boosting foreign direct investment and fiscal discipline. A central tenet is that the state will expand private sector activity, through retreating from markets which it is currently involved in (Department of Finance, 1996). In this formulation of growth, infrastructure plays the role of markets through which to catalyse private (and more particularly, foreign direct) investment.

There is little disagreement that growth is important for the eradication of poverty. However, the nature and quality of growth remains controversial. In a recently released paper, David Dollar and Art Kraay, economists at the World Bank, argue that:

growth generally does benefit the poor and that anyone who cares about the poor should favour the growth-enhancing policies of good rule of law, fiscal discipline and openness to international trade.
(Dollar and Kraay, 2000)

Dollar and Kraay thus make assumptions that growth is good and those neo-liberal economic prescriptions are 'super pro-poor'. The responses to this report have however been sharply critical. Writers at the Center for Economic and Policy Research, argue that that not only the poor but also the majority of the labour force have failed to share in the gains of economic growth (Weisbort *et al*, 2000).

In South Africa, the role of infrastructure delivery can be improved to contribute to the quality of growth in a number of ways. Thus far in this paper, the productive capacities and spatial choices have been expanded upon. This section looks at redistribution, and the nature of subsidies provided.

6.1. Redistributive Tariffs

Redistributing costs at a micro-level is an important concern for pro-poor growth, as it is a component of a strategy for the creation of sustainable incomes. Infrastructure costs are divided into capital and operating costs, the so-called 'two tariff' structure. A criticism of government's infrastructure programme is that the tariff structures for payment of services have not been sufficiently redistributive, leading to high monthly bills for poorer communities.

A significant proposal for redistributing operating costs is the so-called 'progressive block tariff system'. This pricing system comprises of:

- **Life-Line Tariff:** This is a minimum to which all households are entitled to; and

- **Progressively Rising Tariffs:** After the lifeline tariff, the price for services rises with consumption on a sliding scale.

This system has been used in the pricing of water in Durban and Hermanus. The results (Kasrils, 2000) of these experiments indicate that:

- Revenue has increased, as higher users have been willing to pay the increased charges;
- Residents have supported the tariff system;
- Water usage has decreased by approximately 10%; and
- Payment levels have improved, with Hermanus having a 93% payment level.

This approach to tariff restructuring coupled with a review of the equitable share for local governments could provide the means for financially viable local governments. In addition, greater demands for local governments to increase efficiencies (e.g., reducing water leakages) in the delivery systems could ensure more cost-effective, but socially just, delivery systems.

Debbie Budlender raises the broader question of redistribution in an interesting and differentiated manner. She argues that:

From an equity perspective, there are certainly good reasons to fight against a situation where women are still accessing a small proportion of the benefits involved. From a developmental perspective, too, the interests of women or any other relatively disadvantaged group should be promoted as long as in doing so (a) one is not disadvantaging those who are even less advantaged, and (b) one is not using resources that could otherwise be used in assisting the less disadvantaged.

(Budlender, 2000)

The allocation of resources should thus reflect that the least advantaged have benefited and that an overwhelming share of resources has been allocated to the lowest income group. However, in an environment of fiscal discipline, it is important for the government to ensure that redistribution does not occur from the very poor to poor, rather than from rich to poor.

6.2. Spending Mix

The difficulties in meeting redistribution and employment creation goals can be seen in government's spending mix on household infrastructure. Currently, subsidies are provided for land, housing and municipal service extension (including water and sanitation). These subsidies are generally characterised as:

- Providing subsidies on a graduated (or sliding) scale where the very poor receive higher subsidies than the poor;
- Having implicit linkages between the various subsidies (e.g., linking the Consolidated Municipal Infrastructure Programme to the housing programme); and

- Aimed at universal coverage for the entire population.

A recent independent assessment of the CMIP programme argues that:

Linking the delivery of infrastructure services and housing is a rational way to co-ordinate and reinforce public spending in two mutually supporting sectors. However, the earmarking 65% of the CMIP funds to provide bulk infrastructure to greenfield housing projects adopted in the CMIP has tied up the disbursement of funds in slow-moving housing projects. The proportion of funds earmarked for this purpose should be reduced to bring into line the absorptive capacity of the local housing sector.

(Harvard Graduate School of Design, 1999)

Supporting greenfield development is a contentious subject, as it tends in its present application to lead to negative developmental outcomes. More importantly, it provides a double subsidy for poorly located housing projects.

Linking the CMIP and housing subsidy, however, has other disadvantages. These include:

- The CMIP is not extensively used for local economic development initiatives. For instance, the many activity spines and nodal points being proposed by local government could be catalysed by providing serviced land. Instead, linking the housing subsidy and CMIP (when local authorities have little influence over locational decisions) perpetuates fragmented spatial formation.
- In addition, linking the CMIP and housing programmes perpetuates greenfield development. Yet, the upgrading of formal and informal settlements are important public sector interventions towards reducing poverty and ensuring sustainable settlements.

A possible area of better co-ordination relates to government's land redistribution programme. A reduction in the cost of purchasing land (i.e., below market value) for redistribution purposes could catalyse land redistribution. Reducing the cost of purchasing land could also provide the government with the means to buy land in areas that are closer to services, transport routes and employment. Linking the land redistribution subsidy to the housing subsidy could provide a means to meet the development needs of communities.

The land reform programme is, however, primarily a rural based strategy through which the government has equipped itself legislatively to address agrarian reform and rural land redistribution. A similar intervention in the urban land market has not yet been articulated (Berrisford, 1999). The developmental potential for intervening in the urban land market is significant. The outcome of a carefully crafted intervention could reduce urban sprawl and ensure that the benefits of agglomeration are realised in practice.

A review of the government's social and economic infrastructure programmes (including public corporations) is among the studies that are urgently needed to ensure that the poor share in economic growth.

7. Public Sector Transformation

A range of policy recommendations has been made to improve the job creating potential of infrastructure delivery, usually considered basic needs. Realising this potential in practice will however require a substantial improvement in the capacity of the public sector. In particular, skilled programme managers for applied delivery methods and the reduction of bureaucratic red tape are needed.

As poverty analysis has widened its understanding of the importance of infrastructure, another profound change in thinking has occurred. Monopoly delivery by government was associated with the benefits of economies of scale and benevolent government. The challenges to monopolies came from several sources, most notably from the New Right.³ The philosophical foundations of this reasoning are to be found in public choice theory:

- That the government operates effectively when policymaking and regulation are separated from policy implementation. The system thus sees the government overseeing implementing agencies. These implementation agencies are monitored according to agreed outcomes by the government. The relationship is thus that between the client and contractor (Savas, 1987).
- New managerialism, as the term implies, is focussed on empowering management to lead the process of delivering and improving public services. Empowering management has meant that public service has been fragmented into cost centres or trading services. This fragmentation has been aimed at providing management with greater control over budgets, staffing and strategy issues (Halligan, 1997).
- The reforms are focussed on marketisation and competition. Public choice theory argues that the absence of market discipline results in inefficient public service delivery (Nisaken, 1973). They argue that the introduction of private sector methods and participation in public service delivery will improve performance and reduce costs

The case for privatising enterprises was based on four major factors:

- Cost efficiency: reduction of prices;
- Institutional crises: public sector institutions have become moribund and bureaucratic and are unable to deliver;
- Service delivery and resource mobilisation: under conditions of adjustment, private markets provide a means to mobilise capital; and

³ The term New Right is used by Chantal Mouffe and Ernesto Laclau to describe the rise of conservative governments in the United States and Britain in the early 1970s and 1980s. (See Laclau and Mouffe, 1985).

- Empowerment: the process of restructuring state-owned enterprises will lead to markets opening up opportunities for black economic empowerment.

However, there is little reason to assume that a private monopoly would work more efficiently than a public monopoly. Indeed several studies have shown that privatised industries have performed less efficiently than monopoly public sector provision. In recognition of this fact, a distinction has occurred between competition *for* the market and competition *in* the market.

Competition *for* the market occurs through providing concessions or leases for a specific period of time. Usually this means replacing a public monopoly, with a private contract for a specific period of time, for a geographically defined area. Competition *in* the market is when providers are provided with choice of suppliers, either through wholesale or retail competition (Mody, 1996).

The argument for adopting greater levels of competition runs as follows:

- Public monopolies have become sluggish organisations incapable of meeting the needs of citizens;
- Moreover, public monopolies lack the managerial and information technology capacities to substantively improve public services;
- However, replacing a public monopoly with a private monopoly is just as bad
- Instead, what is needed is to break up the public monopolies and to create opportunities for multiple service providers. More service providers mean greater competition.
- The consequence, according to its supporters, is that the pricing mechanism of the market will reduce the cost of services, and that customers will vote with their feet if services provided are not up to satisfaction.

However, these outcomes will not necessarily be realised in practice. For instance, recent reports for the electricity distribution industry are important to consider. The consultants for the Department of Minerals and Energy Affairs advance the idea of competitive regional electricity distributors. The premise of the consultant's report is that competition will be introduced in the generation and distribution industry. The rationale for introducing competition is usually associated with lower prices and financially sustainable companies. Yet, the consultants themselves indicate that cost-reflective tariffs will mean an increase of between 22% and 50%. Moreover, the proposed Regional Electricity Distributors (REDs), according to reports, will require large capital transfers for a period of ten years. In addition, according to the reports, most REDs will be unable to meet their capital expenditure programmes. (Price Waterhouse Coopers, 2000). The logic that guides the consultants' conclusions thus seems flawed. Our central concern is that the introduction of competition appears to take precedence over service delivery.

The idea that competition will lead to greater efficiencies is thus a contested perspective. However, most of the public corporations delivering infrastructure are facing difficulties in relation to financing, transforming operations and extending

services. Moreover, a number of these corporations play a central role in industrial restructuring. As such, changes are needed in the process of delivery.

The transformation process is, however, unlikely to lead to job creation, and will in fact lead to job losses. The loss of jobs in the restructuring of industries that provide both social and economic infrastructure is thus a key challenge for trade unions. Cushioning the blow through social plans is, however, only part of the answer. Instead the focus must be on retaining jobs, reconstructing work practices and improving productivity.

A central weakness in the restructuring process is the absence of a clear, mutually agreed and coherent industrial policy for the electricity, transport and telecommunications strategy. At best, aspects of an industrial strategy are contained in different government documents. For instance, the recently released framework for the restructuring of state assets contains elements of an industrial strategy for the sector (Department of Public Enterprises, 2000). Unfortunately, the aspects covered in government documents often do not assess the wider backward and forward linkages of the restructuring of state assets. This is particularly important given that infrastructure availability and standards constitute one of the central determinants of investment decisions.

8. Findings

The key findings from this paper are:

1. Government programmes are too focussed on meeting basic needs, often without assessing the sustainability of public action. The key drivers for this focus are:
 - Decreasing public investment in infrastructure delivery; and
 - Providing a basic level of service so as to extend services to all, within budget constraints.
2. Government infrastructure delivery programmes need to be improved by:
 - Conceptualising and implementing service delivery not simply as meeting basic needs, but rather as opportunities for economic growth and job creation;
 - Spatial choices for investment must support access to jobs and other benefits of agglomeration;
 - Standards for infrastructure delivery must be set, in relation to the local economic development strategies; and
 - Sustainable livelihoods should be encouraged through redistributing the costs for services and through reassessing the impact of spending on pro-poor growth.
3. Proposed changes in the public sector delivery systems are based on an acceptance of the efficacy of competition. However, key concerns to this approach include:
 - Prices of services and the financial sustainability of these businesses;
 - Job losses in these sectors;

- The reduced role for the state as a regulator, as opposed to a provider, of the service; and
- The absence of a clearly defined industrial policy,

9. Conclusion

This paper has assessed the delivery of 'basic needs' from a perspective of its impact on employment creation. It is argued that the government's extension programmes for infrastructure holds the potential to stimulate economic activity and support sustainable livelihoods in poor communities. Realising this potential, however, requires the government to assess the wider outcomes of delivery, and to plan to maximise forward linkages. In shifting these programmes towards catalysing economic growth and job creation in localities, the government would need to increase its budgets, improve planning and recruit capable staff. Providing infrastructure to the poor will require us to move from acting like hedgehogs – increasing the number of units delivered – to acting more like foxes – providing services in a manner that supports poverty eradication and a reduction in income inequality.

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