

## **Sustainable Development through Urban Renewal Projects: A Case of Johannesburg, South Africa.**

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### **Abstract**

Urban renewal and inner city regeneration have become serious for the South African government which has invested in several structures to stem the tide of decline in its nine major cities. Commitment to alleviation of poverty has become very high on the government agenda and will stay one of the focal points of government. This is motivated by the fact that, currently around 24% of the population lives on less than \$1 a day, below the poverty line defined by the World Bank. The Central Government has made numerous public commitments to development, a part of it concerning extensive infrastructure investment and service delivery. The paper will firstly explore the concept of sustainable development. The paper then looks at some past experiences in relation to public works programmes. Furthermore the paper will outline the challenges and problems of urban renewal projects in Johannesburg. Finally the paper closes with some recommendations for the future.

### **Keywords**

Sustainable development, urban renewal, poverty, unemployment

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## 1. Introduction

In South Africa, the levels of unemployment and poverty are extremely high and two of South Africa's most pressing problems. The levels of unemployment have been rising steadily over the years. The levels of unemployment have been rising steadily over the years. The unemployment rate is an extremely important indicator of economic and social health. The level of unemployment was 9.18% in 1972; 7% in 1980; 10% in 1985; 15% in 1990; 22% in 1995 (Human Development Report, 2004); 30.2% in 2002; 27.4% in 2003; 25.6% in 2004; and 26.5% in 2005 (Labour Force Surveys (LFS) 2000 - 2005). The unemployment rate rose rapidly over the 1990s, then fell in 2003 and 2004 and rose again in 2005. This is due to the drastic fall in the demand for unskilled labour in the formal sector caused by structural changes in the economy as a result of a decline in the importance of the primary sector. The high unemployment rate is also a direct contributing factor to inequality and poverty in South Africa (Labour Force Survey, 2000-2005).

Although the proportion of people living in poverty is shrinking, high population growth in poor countries means the absolute numbers of poor people is rising. Commitment to alleviation of poverty has become very high on the government agenda and will stay one of the focal points of government. This is motivated by the fact that, currently around 24% of the population lives on less than \$1 a day, below the poverty line defined by the World Bank (1994). In addition to high levels of unemployment, there is also a widely acknowledged need for housing and municipal infrastructure (water supply, sewerage, streets, stormwater drainage, electricity, refuse collection). But most importantly, it is crucial to realise that there is a great need for physical infrastructure in both urban and rural areas. In addition there is a lack of capacity and skills at institutional, community and individual levels. This problem of infrastructure backlog is aggravated by the apparent lack of capacity and skills at institutional, community and individual levels. According to the World Bank (1994) infrastructure can deliver major benefits in economic growth, poverty alleviation, and environmental sustainability - but only when it provides services that respond to effective demand and does so efficiently.

The Urban Renewal Infrastructure Projects have the potential to redress this problem of disproportionately high unemployment levels in South Africa and also to correct the skill deficits in disadvantaged communities. Among other things, these may be achieved through an efficient institutional set up, effective community participation, and construction technology that is pragmatic and innovative in nature. The paper will

firstly explore the concept of sustainable development. The paper then looks at some past experiences in relation to public works programmes. Furthermore the paper will outline the challenges and problems of urban renewal projects in Johannesburg. Finally the paper closes with some recommendations for the future.

## 2. Sustainable Development

In 1987, the World Commission on Environment and Development publish a Brundtland Report entitled 'Our Common Future'. The standard definition of environmental sustainability comes from the Brundtland report: 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). There are two main features in this definition: the focus on needs, particularly the needs of the poor, and the focus on the limits beyond which the environment cannot be used to meet needs (Smith, 1992). Sustainable development implies self-reliant and cost-effective development, facilitating access to health, shelter, clean water and food. Finally, it implies the need for people-centred initiatives (Tolba, 1987). Tolba (1987) further argued that sustainable development must help the poorest; otherwise, they are left with no option but to destroy the environment.

The UN Conference on Environment and Development of June 1992 established the mutually inclusive principles of sustainable use of the environment, economic growth, social equity and peace in an attempt to set a framework for sustainable development. (HSCR2000). According to the United Nation Development Programmer (UNDP), key principles emerged from this conference, namely that:

- a) Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature, and
- b) To achieve social development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Because Sustainable development involves economic development, social development, and environmental development, it requires us to define these:

- a) Economic development is economic progress that leads people to be willing and able to pay for goods and services that enhance income and efficient production, it is closely related to economic efficiency.

- b) Social development is the improvements in the well-being of individual and society which lead to an increase in social capital, institutional capital and organizational capital.
- c) Environmental development is the management of ecological services and of the human beings that depend on them. Sustainable development takes all three considerations.

### **3. Infrastructure and Development**

Infrastructure can deliver major benefits in economic growth, poverty alleviation and environmental sustainability – but it can only do this when it provides services that respond to effective demand and does so efficiently (World Bank, 1994). Until the end of the 1980's, infrastructure was neglected as one of the factors in economic growth. Since then, the effect of public infrastructure on the long-run performance of an economy has been debated in the academic literature and public policy circles. According to Aschauer (1988); Munnell (1992) additional infrastructure investment has a significant positive effect on aggregate and regional economic activity. Other scholars such as Hulten and Schwab (1993) argue that not only infrastructure influences growth, but that other factors are correlated as well. Although correlation does not imply causality, it is significant that economic development and infrastructure are closely associated (Queiroz and Gautam, 1992). While there is no consensus on the exact nature of the impact of infrastructure on growth, many studies on the topic have concluded that the role of infrastructure in growth is substantial, significant, and frequently greater than that of investment in other forms of capital. A shortage of infrastructure services puts pressure on the public sector for more infrastructures. A capable and willing public sector is essential that decides whenever and where infrastructure is expanded. A strategy where infrastructure leads growth also requires policy makers to make spatial choices about which areas and regions are to receive additional infrastructure. When infrastructure follows growth, the choices are more sector than spatial orientated. Political choices under such conditions are more likely to involve economic sector interest groups rather than spatially orientated ones (Thwala, 2001).

### **4. Public Works Programme and Employment Creation**

Public works programmes have a long history in the industrialised countries as an

economic-policy tool, both as a fiscal measure to expand or contract public spending in periods of unbalanced domestic demand as well as a short-term measure to alleviate unemployment. In recent years, they have formed important components of special job-creation schemes launched by many industrialised countries in response to either economic recession or rising unemployment among youth (Ibid. 2001).

In contrast to their short-term, anti-cyclical role in the industrialised countries, labour-intensive public works programmes have acquired far more significance in developing countries where they are now frequently resorted to for one or more purposes, such as the following outlined a way back by Jara (1971) to deal with emergency situations arising out of natural calamities such as drought; floods and earthquakes, when provision of immediate relief employment to the affected area and repair and reconstruction of damaged assets and infrastructures become urgently necessary; to serve as a means for harnessing the potential resource of surplus manpower and for evening out seasonal fluctuations in employment and incomes, especially in areas exposed to pronounced seasonal unemployment and underemployment; to achieve permanent drought-proofing of drought-prone areas through systematic soil-conservation and water-development measures, utilising large masses of unskilled workers; to attend to long overdue tasks of erosion control and other land-development works without which agriculture would begin to stagnate and agricultural inputs fail to produce the expected results; and to promote systematic development of essential infrastructure facilities integral to rural and urban spatial planning, that is, the promotion of rural development centres, community development blocks, small and medium market towns, regional growth centres and focal points, and new urban townships.

These major programmes generally comprise a wide variety of minor and intrinsically labour-intensive works such as soil conservation and reforestation; small and medium-scale irrigation (for example, canals, field channels and dams); drainage; flood-protection and land-development schemes; rural access and crop-extraction roads; and basic amenities such as inexpensive housing, drinking-water-supply projects, school buildings, and health and community centres. By sustaining demand for large masses of purely unskilled labour, these rural works programmes indeed provide an important contribution towards a simultaneous solution to the problems of rural employment, income distribution and growth. Besides the direct and indirect employment and income effects the infrastructure they create supports agriculture and helps to preserve the ecological balance of land and forest areas which have long suffered excessive exploitation; they accelerate the integration of monetized and non-monetized sectors; they help to modify the prevailing spatial distribution pattern of rural settlements so as to facilitate the more economical

provision of common facilities and growth of viable rural communities; and, finally, they meet some of the more elementary basic needs of the poorer sections (Ibid. 1971).

## 5. Employment-Intensive Approach

According to Bentall et al. (1999) “employment-intensive approach” is defined as an approach where labour is the dominant resource for carrying out works, and where the share of the total project cost spent on labour is high (typically 25 – 60%). The term “employment-intensive approach” indicates that optimal use is made of labour as the predominant resource in infrastructure projects, while ensuring cost-effectiveness and safeguarding quality. This involves a judicious combination of labour and appropriate equipment, which is generally light equipment. It also means ensuring that employment-intensive projects do not degenerate into “make-work” projects, in which cost and quality aspects are ignored. The employment-intensive approach is otherwise called the “labour-based approach”, indicating that labour is the principal resource, but that appropriate levels of other resources are used in order to ensure competitive and quality results.

According to the International Labour Organisation (1999) comparative studies of employment-intensive vs. equipment-intensive projects have shown that the employment-intensive approach: has a higher absorptivity of unskilled labour (direct and indirect employment); improves income distribution; contributes to an increase in household income and consumption, thereby leading to an increase in national income; saves foreign exchange and thereby does not increase debt; is based on demand from the community level, and thus enhances democratic participation; is more cost-effective in low-wage labour surplus economies; and is more environmentally friendly. Using a macro-economic model to measure the impact of labour-intensive investment projects on the economy of Madagascar, for example, a study estimated the differential effects of employment versus equipment-intensive approaches on the principal economic variables, i.e. production, consumption, employment, public finance, foreign trade. The analysis clearly shows the superiority of the employment-based approach, which is 30 to 80% less costly, creates 2.5 times more jobs, increases national income and household consumption 2.5 times and requires only 30% of foreign currency used by equipment (Ibid. 1999).

The main objectives of the use of maximum employment in construction and maintenance can be divided into long-term development and short-term objectives. On the other hand, long-term development objective focuses on higher level productive

employment with sustainable growth to match an increase in working-age population, spurring economic growth and alleviating poverty (De Jong, 1995). The choice of employment-intensive technology for accomplishing project objectives needs careful consideration. Special attention must be paid to several factors: the suitability of the design and the possibility of changes in the design in favour of employment intensive technology; the suitability of site conditions; the appropriate mix of labour and equipment; the availability and motivation of labour; the wage rates and incentive schemes; and the achievement of production targets. Technical feasibility has a major impact on the decision.

Employment intensive-technology has a few difficulties which need to be resolved. According to De Jong (1995) labour is less suitable for long distance haulage; compaction; surfacing of roads; mixing; stabilization; high-quality pre-mix and production of certain aggregate gradings; high strength concrete. Also the applicability of equipment in construction has certain disadvantages. There are difficulties for equipment with respect to stone pitching; excavation in confined spaces and selection of materials from excavation. The results of employment-intensive works are dependent upon numerous factors. The quality of employment-based work can be comparable to equipment-based work, providing that appropriate management systems are established. The overall success is closely related to the way the projects are designed and to the economic environment. Besides the financial aspect, other issues such as the extent of alleviating poverty, savings on foreign exchange, and its impact on the social environment are significant factors to be considered when evaluating the success of these projects.

## **6. Urban Renewal Infrastructure Programmes in Johannesburg, South Africa**

The challenge of reversing the effects of decades of social exclusion and economic marginalisation in South Africa's townships and informal settlements is a formidable one. A large percentage of the populations residing in the nodes live below minimum subsistence levels. Unemployment levels are very high and income levels very low. This in turn is linked to factors such as poor education levels and lack of skills, lack of formal employment opportunities and the continuing spatial separation of the nodes from the resources of the urban core of most cities.

The spread of HIV/AIDS, which threatens to weaken and then eliminate a very large proportion of their populations of economically active age, is estimated to peak around 2010, though its effects will continue for at least a generation thereafter. Thus the URP, which has a planned seven-year life, will come to an end at about the time when the HIV/AIDS epidemic reaches its peak. The implication is that a very basic challenge for the URP is to help re-establish the social stability, security and solidarity needed to tackle problems of this nature which provide fundamental hurdles to achieving the broader goals of development. A more specific challenge lies in economic development. The eight urban nodes have a miniscule formal economic base, and what activity does take place is largely restricted to the retail sector. Most of the people employed in formal work commute to the industrial and commercial areas outside the nodal areas. The Alexandra Renewal Project has made a start to such initiatives with its multi-faceted Local Economic Development (LED) programme focused both within and outside the area. In terms of programme design, an important challenge of the URP is to ensure that development in these nodes does not simply consist of a list of add-on projects. The challenge is to go beyond the fragmented physical delivery paradigm that has prevailed in most areas since the mid 1990s.

Urban renewal and inner city regeneration have become serious for the South African government which has invested in several structures to stem the tide of decline in its nine major cities. One of the projects is the Alexandra Urban Renewal project. The Alexandra Township was established in 1912 and is close to the centre of Johannesburg. It covers an area of over 800 hectares and its infrastructure was designed for a population of about 70,000. Current population estimates vary widely and have been put at figures ranging from 180,000 to 750,000. There are estimated 34,000 shacks of which approximately 7,000 are located in "backyards" (Gauteng Provincial Government, 2004). The significant, unplanned population has overloaded the infrastructure such that water pressures are low and sewers frequently block and overflow. Maintenance of such systems is very difficult because the high densities and congested nature of the backyard shack development makes access for maintenance very difficult or impossible in places.

At the official opening of Parliament in February 2001, the State President announced a seven-year plan to redevelop Greater Alexandra in Johannesburg. The estimated budget for the Alexandra Renewal Project is R1.3 billion over 7 years Gauteng Provincial Government (Ibid, 2004). The Project is one of the eight original nodes forming part of the Government Integrated Sustainable Rural Development and Urban Renewal Programmes. These programmes are one of the main vehicles through which the Government is implementing its objectives of sustainable development and poverty



alleviation. The projects are suppose to be labour-intensive in their nature so that more people can be employed and at the same time building new infrastructure for the community.

The Johannesburg Alexandra Renewal Project seeks to fundamentally upgrade living conditions and human development potential within Alexandra by substantially improving livelihoods within Alexandra and wider regional economy; creating a healthy and clean living environment; providing services at an affordable and sustainable level; reducing levels of crime and violence; upgrading existing housing environments and creating additional affordable housing opportunities and de-densification to appropriate land.

The following are the problems that sustainable development when implementing Urban Renewal Projects in South Africa: there has been a lack of clear objectives linking the short and long-term visions of the programme; there were no pilot projects with extensive training programmes or lead-in time to allow for proper planning at a national scale. This should have allowed sufficient time to develop the necessary technology, establish training programmes and develop both the institutional and the individual capacities; the project has seldom been scaled to the magnitude of national manpower needs. Very often they have been introduced in an unsystematic and fragmentary style. This often led to technical hastiness, which was compounded by incompetence and inappropriate technology selection; there have been organisational infirmities and inappropriate administrative arrangements; there has been an imbalance between centralisation for higher level co-ordination and decentralisation for local decision-making and execution of works; inadequate post-project maintenance arrangements often undermined the efficacy of the projects.

This is largely attributed to the failure to ensure there would be an authority with a sufficient stake in the projects and in their continuing effectiveness (that is lack of community participation and ineffective local government); the projects have been over ambitious. This was a result of the lack of appreciation of the time it takes to build the necessary individual and institutional capacities at various levels; there has been a lack of clearly defined and executed training programmes that link medium to a long-term development plan; individual skills were not improved. Training, where present, was not particularly appropriate or focussed and has not shown it to be carried through into project employment.

## **7. Lessons and Recommendations for Sustainable Development through Urban Renewal Projects**

One of the most important contributions of the Johannesburg Urban Renewal Project is that it resulted in an improved awareness of sustainable development issues and a better understanding of the mechanisms for achieving successful and sustainable projects. A number of key components had been identified in the research as important for the successful implementation of Urban Renewal programmes. There is a need for targeting the poor; targeting women; institutional training; appropriate technology; community participation; community management; and cost recovery.

Much of the success in the Urban Renewal Projects was achieved by using appropriate technologies and community-based approaches to projects. The conventional approach to infrastructural development adopted from urbanised, western, developed countries was found to be unsuitable because it was overly centralised and did not reflect local traditions and the needs for community participation.

The Johannesburg Urban Renewal experience found that one of the main issues relating to project sustainability is the management of the projects after completion, and not just involvement (or participation) in construction. As an attempt to articulate the responsibilities and management requirements necessary to promote local management of projects, the community management approach was developed. In practice, and for a variety of reasons, planning cannot be left totally to officials, specialists, administrators or experts. Some form of participation in planning is essential Atkinson (1992). Development is satisfying basic needs such as housing, water, health care, jobs and recreation in a way that changes economic, social and power relations SANCO (1994). Community participation has proved to be a success in a number of countries such as in Kenya, Botswana and Ghana where community participation was promoted in roads constructing, stormwater drainage. (McCutcheon, (1995).

Some of these problems in Urban Renewal Projects in South Africa might be avoided by a careful approach to sustainable development. The validity of claims to be representative must be tested as early as possible. All interest groups in the community should be identified and consulted. Holding public meetings or advertising in newspapers may do this. Publicity material about a proposed programme can be distributed at public meetings. It should not be assumed that spokespeople at public meetings represent the majority or all of the community. Spokespeople may also say what they think outsiders want to hear in order to further their own positions or to be polite.

## 8. Conclusion

The Urban Renewal Programme (URP) is intended to fill this gap, but the nodes chosen are themselves very large, containing hundreds of thousands of people, which make it difficult to secure either deep community participation or real economies of proximity in planning and implementation. What is needed is to create governance structures at a level closer to communities and their organizations. Over and above the ideals of integration, a test for the URP will be to move from the existing emphasis on physical development to human development in terms of individual and institutional capacities. The success of the URP will depend upon whether local government is able to play an effective role in mobilising other actors and their resources around the urban renewal challenge, generating wide commitment to and involvement in the programme.

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