

UN HABITAT

FOR A BETTER URBAN FUTURE



GLOBAL REPORT ON HUMAN SETTLEMENTS 2009

CASE STUDIES

PROVISION OF INFRASTRUCTURE

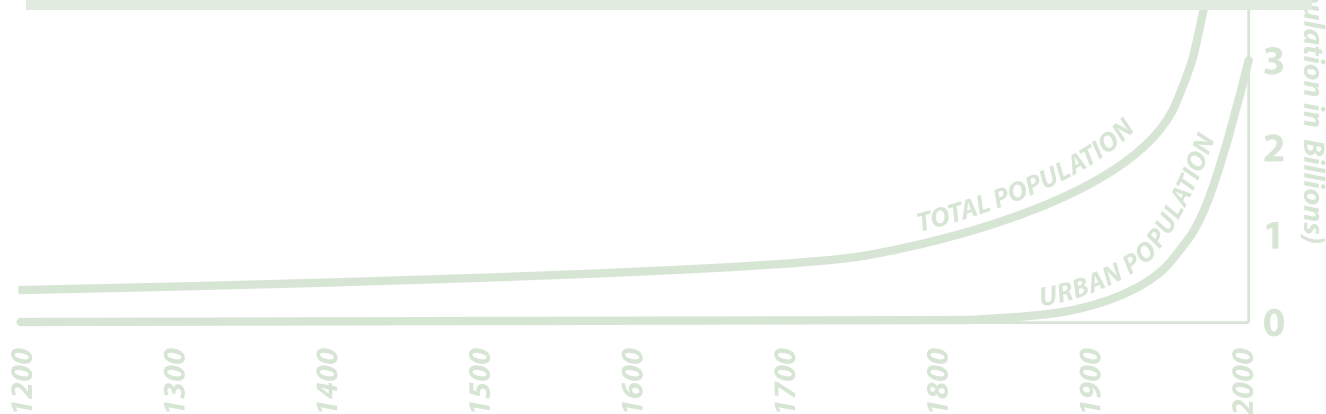
LINKING SPATIAL PLANNING AND INFRASTRUCTURE PLANNING IN DURBAN, SOUTH AFRICA

Under apartheid, the Greater Durban metropolitan area was run by fragmented and racially-based local government. The city was divided on racial lines, and low-income African people were forced to commute long distances from peripheral locations to more centrally located areas of employment. In the post-apartheid period after 1994, the region was consolidated under a single municipality, eThekweni, through two phases of local government reorganization, and a spatial framework intended to achieve 'compact' 'integrated' development was put in place.

However, development trends did not follow the spatial framework and patterns of relatively low-density urban sprawl and the peripheral location of the urban poor continued. Significant growth has occurred in the northern area of the city, driven, in part, by large landowners in the area and by the provincial government, which is developing a new airport there. This growth is largely taking the form of upmarket development of gated communities, shopping and office development, with little provision for the urban poor. Some of this development is the consequence of earlier divided local government, but is also the result of a concern to support economic growth. In addition, the way in which the South African housing subsidy system is designed makes it difficult to support the development of low-cost housing in areas where land costs are high. The spatial framework was largely ignored in decision-making on land development applications, and was too broad to provide a basis for infrastructure planning. Instead, a developer-led approach predominated. In recent years, however, the limits of earlier spatial planning have been recognized, and there are initiatives to link infrastructure planning and spatial planning more closely.

Geographic information systems (GIS) and urban modelling have been used to highlight key interrelationships between forms of urban development and infrastructure costs, and to feed into decision-making. A set of scenarios was developed to model the impacts of various spatial development patterns on the requirements for infrastructure and its cost, as well as to identify key patterns. This assisted in choices over long-term development directions. A cost surface model was developed to predict the cost of providing bulk services to new housing developments, highlighting the costs of peripheral location and enabling arguments for greater expenditure on development in better located areas. An accessibility model was used to assess the need for facilities in new housing developments. These models have not determined development directions. Rather, they are an input into development decision-making, and by presenting information and choices in a clear way, they allow more informed discussion between various groups of officials, and between councillors and communities. These approaches have suggested the value of the use of harder data and GIS-based models; but they also point to the need for a clear long-term spatial development vision, based on engagement and agreement between various stakeholders, councillors and officials, and amongst municipal departments.

Source: Breetzke, 2008



PLANNING SUSTAINABLE CITIES

LINKING MEGA-PROJECT DEVELOPMENT TO SPATIAL PLANNING: PLAINE SAINT-DENIS, FRANCE

Plaine Saint-Denis is an area north of Paris, located on the axis linking the metropolitan centre to the Roissy-Charles de Gaulle International Airport. Between 1840 and 1960 it had been one of Europe's largest industrial zones, and provided some 50,000 jobs in 1940. However, industrial restructuring in the 1970s affected the area badly, and by 1990, the number of jobs had fallen to 27,000.

Urban regeneration began as a partnership between the three local authorities in the area, which set up an urban project to regenerate the area. The project envisaged the development of a multifunctional and diverse area, housing a range of groups of people, consistent with broader ideas about sustainable development in Paris. Some 23,000 jobs and 10,000 dwelling units were to be established. This vision of a 'city for all' – an intense mixed-use, pedestrian oriented city – focused on maintaining industrial activities and low-income households in the heart of the Paris region, while creating new development around a network of transport and social infrastructure in the broader region.

The project developed slowly at first, but picked up momentum with several rounds of development. During the early 1990s, the Regional Structure Plan designated the area as an 'urban redevelopment centre', giving it priority for investment in infrastructure. The location of the 1998 Soccer World Cup gave the area a further boost, and drew private developers into the area. In contrast to many other examples of urban redevelopment associated with event tourism, the developments associated with the World Cup were consistent with the planning and vision for the area. Private-sector development has accelerated in what was once a depressed area, but has not displaced business and local residents. The area has become an important location for a range of new economic activities, and is seen as a strategic area for development within the region. Nevertheless, there are some mismatches between local skills and jobs, and old and new residents. Housing renovation and environmental improvement in some areas is still wanting.

On the whole, however, Plaine Saint-Denis represents a successful regeneration initiative. Rather than a single large flagship project, the development of the area evolved over time, using various instruments, and linked to both broader strategic planning processes and to opportunities created by event-led development, but always with the idea of supporting the planning intentions for the area. Importantly, the success of the development is linked to the building of cooperation between levels of government, different parts of the public sector, various private-sector interests and local communities.

Source: Lecroart, 2008

INTEGRATED LAND-USE AND TRANSPORT SYSTEM, CURITIBA, BRAZIL

Curitiba's 1965 master plan structured its development around a set of transport axes with dedicated bus lanes, carrying express high-capacity articulated buses, flanked by high-density residential development, as well as offices, commerce and services, in areas adjacent to the route. Large bus terminals at the ends of these express bus routes permit transport between routes, as do medium-sized terminals along the routes. Passengers may transfer to inter-district and local buses using a single ticket. Proponents claim that residents spend a comparatively low 10 per cent of their income on transport, and that fuel consumption is 25 per cent lower than in comparable Brazilian cities. And while there is a high rate of car ownership, more than 1.3 million passengers a day take the bus, with 85 per cent of residents using it. The success of this model has been attributed to a planning process that strongly integrated land-use and transport planning, and to persistent long-term implementation of the plan. While a master plan was used, its focus was on a strategic vision and principles to guide development, and on the use of appropriate systems and incentives. Despite the many benefits of the Curitiba planning and development approach, it has not escaped the realities of urban spatial inequalities. Curitiba sits within a broader metropolitan context in which the poor live on the periphery with limited services, amenities and an absence of public transport. In addition, although the transport axes within Curitiba were meant to house middle- and low-income people, the supply of good infrastructure has pushed up property prices to the extent that this is no longer possible, and the poor are forced to live on the periphery.

Source: Rabinovitch and Leitman, 2004; Irazábal, 2008a

GRHS/09/CSE3