International aid to cities over the past 40 years has been based largely on a simple, demographically driven model of demand for and supply of housing and urban infrastructure services. The demographic projections have been generated by the United Nations Population Division, country demographic and statistical offices, housing and public works ministries, and, more recently, analyses by major research institutions such as the US National Academy of Sciences (2003). Governments and aid agencies have noted the projections of continued rapid urban population growth in developing countries, especially the conclusion that there will be an additional 2 billion urban residents in these countries by 2025. These projections have been taken as the starting point in assessing the demand for investment in housing and urban infrastructure such as water supply, sanitation, electricity, and solid waste management.

Recent examples of this work include the Global Report on Human Settlements of the United Nations Human Settlements Programme (see e.g., UN-Habitat, 2003), the work done on the Millennium Development Goals in A Home in the City (UN Millennium Project, 2005), slum improvement strategies of the Cities Alliance, and analyses of the growth of the urban population, such as Davis’s Planet of Slums (2006). As a result of perceived and real demographic pressure, entire policy areas have developed, such as remedies for the threat to the urban poor of forced evictions or for provision of water supply and sanitation to millions of new urban residents.

Conclusions about the demand for housing and infrastructure services have focused on two points: the need to find affordable solutions for growing numbers of urban poor and the weak supply response of both the public and the private sector to growing demand. Both points have reflected the assessment that governments did not have the financial resources to provide subsidized shelter and services to growing numbers of urban residents and that most countries did not have the policies in place to provide incentives for the private sector to respond to this demand. This has
led to the widely perceived need to provide low-cost, affordable solutions on a large scale and to look for opportunities for what has been described as “scaling up.”

The meanings of low cost and affordable are critical in this argument. Low cost in fact meant, after 1970 and the entry of the World Bank into the field of urban aid, that much lower standards and unit costs for housing and infrastructure services were proposed than had previously been supported by the major international and bilateral providers of aid: the United Nations Centre for Housing, Building, and Planning and the French and U.K. bilateral housing and urban planning programs. Rather than pursuing models such as the single-family homes supported by the US Agency for International Development (USAID) in Latin America, which were responsive to prospective middle-class homeowners but were prohibitively expensive to the urban poor, the Bank began to ask much more basic questions about how to reach the poor. This led to low-cost solutions such as providing one water faucet for a hundred families in some aid projects.

Affordable in this context gradually became understood as about 15–20% of disposable household income that could be used to pay for housing and urban infrastructure costs. This 15–20% became a rule of thumb that was used in hundreds of projects in developing countries, even though socioeconomic surveys in these countries demonstrate great variation across cities and income groups in what households actually spend for these basic services.

The critical design variable in these project discussions, however, was residential density. Assuming a given number of households per hectare was necessary to apportion the costs of infrastructure networks such as water supply, sewerage, roads, and drainage as well as public spaces and public facilities such as schools, clinics, markets, and community centers. As cost estimates were aggregated at the hectare level, the key parameter in deciding whether the desired population could afford the proposed solution was how many households would live in these areas. This number was arrived at through a series of calculations that first specified the area needed for roads, public facilities, and public spaces, with residential area being the residual. The sequence in this calculation reflected the requirements of land use and zoning codes that govern most cities.

Importantly, despite projects being located in cities with large numbers of high-density squatter settlements, most project design processes failed to include two important tasks: First, they did not explicitly examine the projected level of density of the project from a medium- or long-term perspective. And second, they did not consider the planned settlement in terms of the wider patterns of land use in the city at the time. Instead, decisions on density were project specific—disconnected, along with many other decisions, from the urban context as a whole. Just as decisions about density were not “contextualized,” the issue of site location was not considered in relation to urban form.

The consequences of this approach for density and urban form are the subject of this chapter, which uses the case of Dakar, the capital of Senegal, as an example. The chapter explores the implications of changes in the density of a project area over a period of 35 years in the context of the growth and development of Dakar. It offers conclusions about how project design incorporates density in projects for