


# Managing the Monster

URBAN WASTE AND GOVERNANCE IN AFRICA



EDITED BY ADEPOJU G. ONIBOKUN

**MANAGING  
THE MONSTER**

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# MANAGING THE MONSTER

Urban Waste and Governance  
in Africa

Edited by  
Adepoju G. Onibokun

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## Chapter 5

# JOHANNESBURG, SOUTH AFRICA

Mark Swilling and David Hutt

## INTRODUCTION

The transition to a nonracial democracy in South Africa has had profound implications for this country's cities and the urban-governance system. In particular, because this transition is taking place in a global context in which previous conceptions of governance are rejected or severely criticized, South Africans must find new solutions to old problems specific to South Africa's socioeconomic and politicocultural conditions. No ready models are available to provide quick-fix recipes. This trend toward innovation and creative experimentation provides a research opportunity to track processes that may have continental or even global implications.

This paper addresses the changing nature of local governance in Johannesburg, South Africa, first, by generally exploring the concept of governance to arrive at an understanding of how this



concept can be operationalized most usefully. This is followed by a general survey of the process of local-government transition in South Africa. This general overview is needed to establish the context for the specific institutional arrangements that are the focus of this paper. The second section provides a detailed case study of the solid-waste system in Greater Johannesburg. Because the range of issues to be covered is wide and space is limited, liquid and industrial wastes are not dealt with. The original terms of reference of the study stipulated an emphasis on solid waste, and this has also helped to focus the study. The third section assesses the institutional options for managing solid waste in light of the changes occurring in local governance. The fourth section provides a set of policy options and recommendations.

## **CHANGING MODES OF LOCAL GOVERNANCE IN SOUTH AFRICA**

There are a number of ways of approaching the subject of local urban governance. Halfani et al. tackle the issue by "integrating the notion of governance itself into urban development" (Halfani et al. 1998, p. 2). To do this, they address the conceptual debates about governance in general and then, after arriving at their own conception, apply this to the urban-development debate, with the aim of redefining the terms of this debate. They explicitly state that they are "not defining 'local governance'" (Halfani et al. 1998, p. 2). By this they presumably mean that they are not interested in the local manifestations of governance in general, but only in the implications of the governance paradigm for the management of urban development at all levels. The problem with this approach is that the urban-development processes cannot be assumed in Africa to be localized by definition because, for example, what are deemed to be rural economies are often subsidized by urban wage earners, which effectively means that many so-called rural areas depend in large part on the nationally structured urban economy. Also, many aspects of urban-development policy are not set at the local level. The spatial dimension of urban governance, therefore, needs to be conceptualized in a way that is not given in the concept of urban governance on its own.

Another approach is that adopted by Picard et al. (1999), who focus on the changing role of local-government institutions in

southern African politics. They surveyed these changes over the decades via two frameworks, namely, the rhetoric and reality of decentralization policies and the ideals and failure of the notion of development administration. In other words, their entry points into local urban governance are the decentralization and development-administration debates, rather than the governance literature. They concluded that for "good government to occur, participatory processes need to evolve at the level where public institutions and policies impact upon society. The local state is that part of the state structure which impacts upon and is influenced by individuals and groups" (Picard et al. 1999, p. 3). Although more state-centric in their approach than Halfani et al., Picard et al. arrived at what the former researchers called a governance approach, but unlike these researchers, Picard et al. stopped short of actually defining the concept of governance, despite the fact that they use this concept throughout their argument. This conceptual inadequacy is compensated for, however, by a very strong definition of their spatial point of reference, namely, the local level. They do not, however, have any special concern for urban issues, and therefore they do not address the specificity of the problems of governance in urban areas.

The growing literature on governance constitutes an attempt to capture the shift in thinking that is taking place across the globe about the nature of the state and its relationship to society. The shift from *government* to *governance*, from structure to relations, from independence to interdependence, from linearity to feedback loops, from rational structuration to chaos as process, is influenced by the combined universal disillusionment with the nature of the state and the impact of the postmodern imagination, which has abandoned the myth of human self-unification and the vision of a utopian end-state. But it was the World Bank's 1989 report on sub-Saharan Africa (World Bank 1989) that forced the word *governance* into the mainstream debate. Although World Bank institutions resisted dealing with Africa's governance problems for many years, as a result of the dominant influence of quantitative economics in the World Bank's post-Cold War view, the problems of Africa were, at root, issues about poor governance, that is, personalization of power, denial of human rights, corruption, undemocratic government, low levels of participation, etc. The solution, it followed, lay in programs aimed at promoting good governance, particularly stronger public management, increased accountability

of politicians and officials, an effective and independent judiciary, autonomy of the press, independence of civil-society formation, and transparency in financial reporting (Landell-Mills and Serageldin 1991) — in short, a liberal democratic prescription.

In general terms, governance refers to the founding values and constitutional “metapolicies” (Hyden 1992) that constitute the nature of governing institutions, guide their actions, and shape the complex relations between them and society. Governance is defined, however, in a number of different ways in the literature and in southern African political discourse. Four basic positions exist. The first is the crude prescriptive position of many international development agencies, which equate good governance with the classic liberal-democratic model (separation of powers, bill of rights, federal intergovernmental arrangements, an independent judiciary, limited roles for the state, neutral and effective public service, political pluralism, etc.). The second approach is unconcerned with the nature of the state and government but focuses on state–society relations. In line with a rich and growing literature on state–society relations (Chazan et al. 1988), this approach argues that the governance paradigm refers to the relationship between civil society and the state (Halfani et al. 1998). Once the focus shifts to this relationship, then the issue of democratic governance is about empowering civil-society formations to enable them to participate in decision-making and policy formulation.

The third approach views governance as an ideological device that post-Cold War Western governments have chosen to use to mask the imposition of capitalist market policies (via structural adjustment) on highly unequal societies, with the consent of increasingly disempowered state systems that no longer represent the real interests of the poor majority. As it is argued, this is a formula that leads to increased political conflict and a return to authoritarianism, rather than promoting democratic governance (Leftwich 1993). Leftwich’s main contribution to the debate has been to note how the governance paradigm has turned the development debate on its head in the context of the new world order. Whereas in the 1960s conventional wisdom rested on the assumption (provided by modernization theory) that socioeconomic modernization was a precondition for political democracy, in the 1990s political democracy is seen as a precondition for successful development. This somersault is intimately bound up with the end of the Cold War, which has allowed Western governments to impose

their own constitutional prescriptions with impunity. The rise of prodemocracy movements has also played a role.

The fourth approach goes beyond these normative and critical approaches by attempting to theorize what Hyden called the "governance realm" (Hyden 1992). Hyden's primary concern has been the dynamic of what he calls the "civic public realm" in Africa, that is, the sphere of public and political life that is not reducible to the state-public sector, as it cannot be maintained that the state is the only player in formulating and setting of public policy. His assumption has been that the nature, health, and texture of the civic-public realm depend on the substantive content of governance relations.

Hyden argued that governance "is the conscious management of regime structures with a view to enhancing the legitimacy of the public realm" (Hyden 1992, p. 7). In other words, governance is about the way the power structures of the day (what Hyden calls the "regime") and the frameworks within which civil society operates are managed. Together these interdependent elements can make up a robust and healthy civic-public realm. Hyden suggests four essential elements of governance. The first is the degree of trust that exists among classes, clans, and political elites in the nature, purpose, and rules of sociopolitical interactions and practices. Without trust, individuals and organized interests will see no reason to actively engage in public life (or development) because they will have no faith in the possibility that social action will yield tangible results. Where trust exists, the actors tend to form multistakeholder strategic alliances across the public, private, and community sectors and voluntary multiclass and multiethnic associations within civil society.

The second element of governance is the extent to which effective relations of reciprocity are established in the public realm. Reciprocity exists if associations and parties are allowed to form and defend and promote stakeholder interests within the public realm via political competition, pressure, negotiations, and conflict resolution. Reciprocity is unlikely if trust does not exist, but trust without reciprocity soon dissolves into cynicism.

The third element is the degree of accountability, that is, whether the governors can be held responsible by the governed via institutionalized procedures and processes (for example, elections, public oversight, and referenda). Trust and reciprocity within civil society cannot be sustained over time without the eventual

implementation of structures of accountability, nor can formal accountability mechanisms attain real meaning without trust and reciprocity across society.

The fourth element is the nature of authority, that is, how political leaders make policies and implement them to resolve the problems of ordinary citizens and promote the legitimacy of the public realm — what many in southern Africa refer to as the capacity to govern. With these taken together, Hyden's approach allows us to ask concrete questions about relations of trust, reciprocity, accountability, and authority, and this is more fruitful than prescriptive liberal-democratic models or simply the critique of these models as masks for the logic of international capital accumulation. Hyden's approach also allows us to go beyond a descriptive equation of governance with state-society relations.

However, Hyden's framework has two problems. First, it is still state centric, despite his introduction of the concept of the regime to escape the structuralist bias of the state concept. The concept of the regime still places the formal political system at the centre of governance. As Halfani (1995) has pointed out, state-centric conceptions of governance often ignore the efficacy and power of nonstate modes of governance, which can, at times, have an even greater influence on the distribution of urban resources than the state itself. This certainly happens more often at the local urban level of government than at any other. The way out of state centrism may lie in the conception of governance developed by a group of European writers in a recent volume edited by Kooiman (1993). They argued that as societal and economic relations have become increasingly complex, diverse, and dynamic (that is, post-modern) in a context of mounting fiscal constraints, tension has opened up between governing capacities that were previously located exclusively within the state and governing needs that the old state forms can no longer respond to. The result is a shift from state-centric assumptions about the locus of the right to govern to the creation of new governing partnerships, entered into by state agencies, private-sector businesses, and nongovernmental organizations (NGOs) or community-based organizations (CBOs) in response to the new governing needs of postindustrial societies. This approach is what the European writers refer to as the new, responsive mode of governance that has replaced three increasingly outdated modes of governance, namely, the traditional hierarchically organized Weberian-Westminster state; the large,

institutionalized corporatist state; and the autonomous welfarist state, in which services are delivered uniformly to all as a basic right (Jorgenson 1993). This is a search for governance in the space created by unmet governing needs in a context where the state is incapable of developing the necessary capacity to respond to the complexity, diversity, and dynamism of rapidly changing conditions. This framework provides a very useful framework for understanding what is happening in southern Africa's towns and cities. It shares the assumptions of the critique of the postapartheid public administration in South Africa, developed by Cranko and Wooldridge, who argued that the traditional modes of governance are premised on rationalist assumptions that are out of kilt with the rapidity of change in late-20th century societies, especially South African society (Cranko and Wooldridge 1995). Although southern Africa's governing problems arise from the role of the state in the struggle for modernity, rather than from the crisis of postmodernity, the search for governance in the space created by the incapacity of the state is common to both contexts. Put another way, the futile attempts of Africans to develop a deracialized modernist state from forms left by colonialism can now be recognized as such and replaced with conceptions of governance more appropriate to societies to which the rationalist, reductionist assumptions of capitalist modernization have never been applicable. Hyden (1983, p. 78) holds that "entrepreneurialism through the public service is an impossibility." However, his desperate plea to reverse this is more Quixotic than realistic. At least now there is a chance that the rest of the world may begin to hear African discourse as it really is — creative, multinodal, and "circular" (with feedback loops) — a discourse that has for decades been suppressed by the rationalistic reductionism of the kind of development modernism imposed on Africa by Western development theorists for decades.

The second problem with Hyden's framework is that his conception of governance is only useful for analyzing the relationships between organizations, and he fails to ask what governance means for the internal management of African organizations. This is not to suggest that we should go back to the sterile literature on institutional development or urban management that has been so roundly criticized. Instead, we could turn to an interesting and emerging literature on the management of African organizations (Blunt and Jones 1992; Christie et al. 1993; McClagan and Nel

1995; McClennan et al. 1995). One of these contributions is a recent path-breaking book by two South African-based management experts who have used the governance concept to provide a fundamental critique of what they call the “authoritarian mode of governance” (McClagan and Nel 1995) that characterizes the managerial practices of South African business organizations. They posit, instead, the notion that organizations can be managed in accordance with the precepts of democratic governance. The most important precept that McClagan and Nel argued for is that of having thoroughgoing participation of all the stakeholders in an organization in the course of setting and implementing its vision, strategy, and policies. This point of departure represents very different concerns from the conventional public-administration concerns of the institutional-development school and those expressed in the development-administration literature.

In short, if we bring the various arguments together, it is possible to suggest that an analysis of governance must start by identifying the locus of governance across a spectrum running from the central state, through to the decentralized parts of the state, and then beyond the state to nonstate formations in civil society. Along with this, we need an analysis of the degree of trust and reciprocity within civil society (as per Hyden). One must also analyze the extent of accountability and the capacities of organizations in both the state system and civil society to meet the governing needs of the society in general. In other words, whereas the issues of trust and reciprocity are about the values that underpin organizational relationships, those of accountability and governing capacity are about the ways these organizational relationships are constituted and organized throughout society. Cutting across all of this is the question of the internal organizational management of institutions, associations, and organizations in all sectors.

It is possible to conclude this section by summarizing four basic approaches to governance in Africa, that is, the four ways the concept is used in reference to institutional, political, and development arrangements:

- *Good governance is good administration* — This approach tends to be used by multilateral aid and development agencies that are limited to nonpolitical interventions. These agencies tend to focus on building the administrative,

regulatory, planning, and problem-solving capacities of African public administrations.

- *Good governance is about political democratization* — This approach equates good governance with the creation of liberal-democratic institutions and therefore limits governance to traditional modes of political participation (via the electoral process). Not surprisingly, Western governments are the protagonists of this approach, which is often supported by social movements and opposition parties in societies in which the government resists democratization.
- *Governance is about state-civil-society relations* — This approach essentially sees participation as more than mere political participation via the electoral process, and this approach advocates organized participation in policy-making and implementation by civil-society organizations. The development NGOs in their rising numbers are clearly the main champions of this position, but it has widespread support across other sectors as well (especially the professions).
- *Governance is about civil society taking over responsibility for development* — This position is mainly advocated by anti-state social movements and CBOs (with some support from libertarians on the other side of the political spectrum) that have concluded that the state structures are irretrievably lost to corrupt power mongers or international capital. These organizations therefore conclude that the only hope for development is if the state has as little as possible to do with it and direct responsibility for it is placed in the hands of the grass roots.

All four approaches are evident in the South African context. The third approach is in the official ideology of the Mandela government's Reconstruction and Development Programme (RDP), whereas the day-to-day work of the public service is premised on the assumptions of the first approach. The fourth approach underlies the statements and programs of an increasing number of movements representing constituencies that do not stand to benefit from the RDP. Our approach, however, is more holistic than these other four approaches, as it is premised on a systems view of the world, in which the whole is more than the mere sum of its parts.



Looking at the relations of trust, reciprocity, accountability, and capacity, our focus is less on the parts of the system and more on relationships between the elements of the system. If governance is about relationships, then the intention must be to focus on the way the relationship between the parts defines both the essential nature of each part and the dynamics of the whole.

## **OVERVIEW OF THE LOCAL-GOVERNMENT TRANSITION IN JOHANNESBURG**

The negotiated settlement at the national level in South Africa, finalized in 1993, created an interim Constitution that completely reconstituted the governmental system at national, provincial, and local levels. A final Constitution will soon be negotiated by the Constitutional Assembly. This assembly was created by the interim Constitution. Although media and public attention have focused, since the first general election in April 1994, on the setup and workings of national government and the nine provincial governments, very little attention has been paid to the transition at the local level or the implications of this transition for the reconstruction and development process. Between 1993 and 1996, more than 800 new local governments were established, and in most of them democratic local elections have already taken place.

Chapter 10 of the Constitution provides for a framework for managing the transition at the local-government level. Not only does this chapter entrench the local-government transition, but it also lays down certain constitutional principles to effectively protect the autonomy of local governments within the framework of a quasi-federal three-tier governmental system. Whereas South Africa has now joined literally dozens of countries in Latin America, southern Europe, eastern Europe, Asia, and Africa that have gone through a nonrevolutionary regime transition to democracy over the last 25 years (O'Donnel et al. 1986), no other case has been found of a national-level constitutional transition that parallels this complex, locally determined process of local-level transition.

The graphic images of the apartheid city are now world famous. On the one hand, the opulent white suburbs have commercial services and municipal-service standards on a par with those in societies with gross domestic products (GDPs) several

times higher than that of South Africa. On the other hand, the sprawling black townships on the peripheries of the towns and cities have their uniform housing units, poor services, and ever-widening bands of informal housing erected by an increasing number of homeless people. The local-government transition will have major implications for the future quality and durability of South Africa's newborn democracy and for the ecological sustainability of the envisaged development process. It also defines the institutional context of this local study of Johannesburg's waste-management system.

South Africa's population of 38 million in 1990 is expected to double over the next three decades. The Urban Foundation estimated South Africa will have a population of 46.5 million by 2000 and 59.7 million by 2010. The black population alone is expected to increase by 130 % between 1980 and 2010, from 21.1 million to 48.5 million (Coetzee and de Coning 1992). It has been calculated that 65 % of the population was functionally urbanized by 1989. The 3.4 % growth rate in the urban population between 1980 and 1985 is expected to level off at 3.09 %. The main contributing factor will be rural-urban migration and the natural increase in the size of the urban population, with the latter now the dominant factor in, rather than being a secondary cause of, urban-population growth rates (Coetzee and de Coning 1992). It is expected that 69 % of the black population will be living in urban areas by 2000.

South Africa has five major metropolitan agglomerations: the Pretoria-Witwatersrand-Vaal (Gauteng) region (which includes Greater Johannesburg and is now one of the nine provinces), Greater Cape Town, the Durban Functional Region (DFR), Port Elizabeth-Uitenhage, and East London-Mdantsane. By 2010, 75 % of the population is expected to live in these five metropolises, which, in turn, will be responsible for 75 % of GDP. The Gauteng is the primary metropole and is expected to have a population of 12 million and be responsible for the production of up to 50 % of GDP by 2010. However, the indications are that the Gauteng's economic performance is weakening relative to other centres, such as the DFR.

Although apartheid did little to affect the process of urbanization, it created a settlement pattern that Coetzee and de Coning (1992) summed up as follows:

- People are concentrated in five metropolitan areas, which are in turn dispersed and sprawling conurbations

characterized by extremely inefficient land use, long travel times, much better access to services between richer areas than in poorer areas, and distribution of urban poor on the peripheries both in formal townships and, increasingly, in sprawling squatter settlements providing shelter for at least 7 million people;

- The nonmetropolitan population is distributed in some 300 settlements outside the homelands;
- Urban populations are growing in 293 towns inside the former homelands, many of which had economic bases supported by the government's industrial decentralization policies;
- Semi- and peri-urban informal settlements are proliferating inside homeland boundaries, but on the peripheries of metropolitan economies from which they derive some of their income; and
- The rural population is expected to increase from 11.4 million to 15.3 million between 1985 and 2010.

The entire structure of the apartheid city was governed by the racial regulation of urban space via the *Group Areas Act*, passed in the 1950s. This Act empowered urban administrators to slice up the cities into four racial segments, exclusively reserved for whites, Africans, coloureds, and Indians. Each segment was then governed and administered separately, and over the decades a different body of planning, municipal, and administrative law developed for each segment. By the beginning of the transition to democracy in 1990, each area had its unique local-government, urban-planning, housing-delivery, and ownership systems, etc.

Underlying the apparent division of the cities along racial grounds, however, was an integrative urban-economic and ecological logic that worked in favour of the white urban classes. In other words, whereas the ideology of racial division was justified in terms of the need to separately develop the different racial groups, in reality the economic relationship between the white and the black (that is, African, coloured, and Indian) halves of the city was similar to a colonial relationship of exploitation and unequal exchange. This was most evident in the way local-government finances were structured.

Because of apartheid zoning, all the major commercial and industrial areas were located in the white areas and fell under the jurisdiction of the White Local Authorities. Economic activities were concentrated in the central business districts (CBDs), around which most South African cities developed. However, the metropolitan urban areas have been undergoing suburbanization and deconcentration since the 1970s. Calculations have shown (Planact 1990) that between 50 and 70 % of all the revenue of the White Local Authorities came from property rates and service charges in the commercial and industrial areas. This was the revenue used to cross-subsidize the development of high-level services in the white suburbs. None of the revenue that accrued to the White Local Authorities was spent in the black areas (Swilling et al. 1991).

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As far as the black townships were concerned, they had virtually no commercial or industrial base. They were residential areas populated by people who worked in the white areas. Revenue for their services came from service charges and rents charged for the largely state-owned housing that they lived in. Grants from the national government subsidized up to 30 % of the cost of running the townships. This meant that the economic base of the white areas was built up by labour from the townships working in the white areas, as well as by consumer spending in white areas (which was necessary, as black areas had no commercial services). This economic base, in turn, created a sustainable tax base for the White Local Authorities, which enabled the cross-subsidization of white suburbia. As a result of the net financial drain of resources from the poor black to richer white areas, the black townships were systematically underdeveloped. This was the system of exploitation that held the apartheid city together as a single interdependent urban system.

The transition to democracy that began in 1990 was largely the product of locally and nationally constituted social movements, driven by organized workers, students, youth, women, and urban residents. Although the 1973 general strikes and the 1976 student uprisings triggered a collective organizational consciousness, it was not until the 1980s that large-scale organized social movements made a decisive impact on the structures, policies, and strategies of both the state and mainstream economic institutions. By the mid-1980s, however, it was generally acknowledged that a stalemate had set in. The state did not have the combined coercive, strategic, and legitimate power required to force through a

top-down Brazilian-style reform by imposition. Nor did the extra-parliamentary opposition social movements and the exiled liberation movements have the combined military, organizational, and logistical resources to mount a successful revolution. With neither reform from above nor revolution from below, both sides began to make attempts, from the mid-1980s, to find a negotiated resolution to this conflict. These efforts were made at the national level as regime incumbents and regime opponents began to hold exploratory meetings. This process culminated in formal negotiations in 1990, after Nelson Mandela was released (Swilling and Van Zyl Slabbert 1989). However, even before the commencement of national negotiations, similar processes took place at the local level, and these continued well beyond the date of national settlement.

In numerous ways, people resisted and challenged the form and function of the apartheid city during the 1980s. Although one-off demonstrations, stayaways, strikes, and collective, violent crowd actions against specific targets were commonplace, sustained mass action tended to have the most decisive effect. Communities across the country mounted consumer and rent boycotts. Although these actions were successful to the extent of the strength of their grass-roots organization and the capabilities of their leadership, they created localized stalemates that neither targets of these actions (white shopkeepers, Black Local Authorities) nor the social movements behind them could tolerate for very long. The targets were deprived of money, and constituencies of the social movements were deprived of services. The result was frequently the so-called local-level negotiations. By the early 1990s, hundreds of these local-level negotiations had broken out across the length and breadth of the country. Inevitably, the parties involved were representatives of various local-government structures, businesses, municipal-service providers, civic associations, residents' organizations, political parties, trade unions, and numerous other community organizations. Their activities resulted in the formation of the local negotiating forums.

Local forums became the schools of the new South African democracy. They were where networks and relationships were built, mutual learning took place, and a new culture of governance and consensus-building developed. Imperfect and fraught with tensions and instabilities, these local forums nevertheless became the model for similar structures that emerged at the regional and,

eventually, at the national level. There it took the form of the Negotiating Council that finally negotiated the national constitutional settlement during 1993–94. The first and most well known of these local forums was the Central Witwatersrand Metropolitan Chamber, which covered Greater Johannesburg.

Although the local forums began to be organized in 1989, they were unable to change substantively the fundamental aspects of the local-government system or, indeed, the urban system as a whole. Instead, they became superordinate policy-making bodies that set policies to be implemented in the old structures. However, during 1992–93, the national negotiators realized that a national framework was needed to guide the local-government transition via the local forums. As a result, the National Local Government Negotiating Forum (NLGNF) was established in early 1993. The main players in this forum were the national government, organized associations of local governments, political parties, and the political alliance led by the African National Congress, including trade unions and the South African National Civic Organization, which represented local civic associations.

The NLGNF very rapidly negotiated a framework for guiding the local-government transition. This was embodied in draft legislation eventually enacted as the *Local Government Transition Act* in late 1993. This Act transformed the local forums into statutory forums, with prescribed structures and procedures. The local forums were then mandated to negotiate locally appropriate solutions consistent with the principles of nonracialism, democracy, one tax base, accountability, and so on. Their first task was to create new local-government structures. In smaller towns, these new structures were single, integrated local governments called Transitional Local Councils (TLCs). In metropolitan areas, a two-level system was established, namely, the Transitional Metropolitan Council (TMC), for the whole metropolitan area, underpinned by Metropolitan Sub-Structures (MSSs). The job of the local forums was to define the boundaries, structures, and financial systems of the TLCs and TMCs and then appoint councillors to sit as a new kind of political leadership, drawn from both the former white political establishment and the political parties that had hitherto boycotted participation in local-government structures. These appointments were to last for the duration of the preinterim period between the appointment of the new political leadership by the negotiation forums and the municipal elections. The Act then

made provision for democratic municipal elections that were held in 1995. The elections were to usher in elected transitional structures planned to last as long as the interim phase from the time of the elections to the time the elected Constitutional Assembly agreed on a final Constitution, incorporating local government into a new, three-tier system. In other words, the *Local Government Transition Act* provided a framework for a negotiated transition to local governance that parallels the finalization of the Constitution by the Constitutional Assembly. Both processes will converge on this final Constitution, which is to be the basis for the next general election in 1999.

Finally, it should be noted that the *Local Government Transition Act* and its implications were written into chapter 10 of the Constitution. This meant that locally driven negotiated transformation of local governance across the country was protected by both the Constitution and by other legislation. In other words, new local-government structures cannot be imposed from above by either the provincial governments or the national government elected on 27 April 1994.

Greater Johannesburg is built around the Johannesburg-Soweto urban core and is an integrated metropolitan area. It is also the hub of the newly created Gauteng province and the economic heartland of South Africa. The Gauteng province constitutes only 2 % of the land area of South Africa but accounts for 43 % of the gross national product, 50 % of mining and manufacturing, and the bulk of financial services. Also, Gauteng is generally accepted as being the economic heartland not only of South Africa but also of the southern African subcontinent as a whole.

Gauteng contains five fairly distinct metropolitan subregions, namely, Greater Pretoria in the north; East Rand, stretching from Kempton Park-Germiston eastward; Vaal (Vereeniging-Van Der Byl Park and environs); West Rand, from Krugersdorp westward; and Greater Johannesburg. Greater Johannesburg is by far the most diversified subregion, and it contributed 35 % of Gauteng's GDP in 1988. It is an urban economy that has been declining for a number of years. For example, although formal employment in the Gauteng grew by 3.9 % for the 11 years to 1991, for the same period a 3.5 % loss in formal jobs occurred in Greater Johannesburg (Brenner 1992).

As formal-sector employment has contracted, informal-sector employment has rocketed in the services and distribution

sectors. For example, surveys conducted during 1979–80 of hawkers operating in Johannesburg's CBD estimated that only 200–250 hawkers were operating in the area. By 1993, however, surveys revealed that no less than 13 000 hawkers traded in the streets and transport termini of the CBD. The contribution of the informal sector to GDP was estimated at 18 % nationally. However, the same estimates suggested that about half the economically active population earned their living from the informal sector. Estimates for Gauteng suggested that the informal sector contributed up to 25 % of the GDP of the province (Brenner 1992).

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Gauteng has been the residence of about 24 % of the country's total population of about 40 million people and has had the highest population growth rate, with an annual growth rate of 3.1 % for the 5 years ending in 1990. This compares with 2.5 % for the country as a whole. Although reliable figures are not yet available, Greater Johannesburg appears to be the residence of nearly half the total Gauteng population, or about 4 million people, of which only a quarter at most is white. The figures for Soweto varied in 1989 from 1.2 million to 2.5 million. Most significant of all, however, is the fact that 90 % of Gauteng's population is functionally urbanized.

The Housing Task Team of the Metropolitan Chamber estimated that 200 000 new dwellings would be required in Greater Johannesburg over a 10-year period, beginning in 1992, if both existing needs and those resulting from future growth were to be met. This has major implications for solid-waste management because it means that those who do not have access to formal dwelling live in serviced and unserviced shack settlements, where solid-waste removal is notoriously complex to manage. In addition, the Water and Sanitation Task Team of the Metropolitan Chamber estimated that as many as 2 million people, or nearly half of the total population, were without adequate water and sanitation services. Given that this figure refers mainly to people living in shack settlements, the solid-waste problem in these areas must be exacerbated by poor sanitation services. The health risks of illegal dumping, combined with the runoff of raw sewage, are well known and need no repetition here.

During apartheid, local-government institutions in Greater Johannesburg were, of course, divided according to race. The largest white part of Johannesburg was its municipal area, with more than 1 million people. Before the transition, it was governed by the Johannesburg City Council (JCC), which employed about



20 000 people in 1994. The JCC has traditionally been the largest local authority in the country. The other white local governments were the Roodepoort City Council, Randburg Town Council, and the Sandton Town Council. All these structures were constituted in terms of the *Transvaal Local Government Ordinance* of 1939 — a piece of provincial-level legislation.

190 The Black Local Authorities, constituted in terms of the national-level *Black Local Authorities Act* of 1982, were the Soweto City Council, Diepmeadow City Council, Dobsonville Town Council, and Alexandra Town Council. Most of the coloured and Indian areas were governed by management committees as adjuncts of the White Local Authorities, with limited executive and fiscal powers. National- and provincial-level structures, products of the 1983 Constitution, governed Ennerdale and Lenasia South directly. Informal settlements outside proclaimed municipal areas were governed directly by the former Transvaal Provincial Administration (which the 1993 Constitution subsequently replaced with the Gauteng provincial government).

In line with reformist initiatives of the period before the transition in 1990, the former National Party government introduced metropolitan-wide structures called regional services councils. They were premised on “consociational” principles (structured, horizontal coordination between vertically autonomous political entities), and they imposed new levies on businesses to fund infrastructure upgrades in black areas. The Central Witwatersrand Regional Services Council (CWRSC) was established in 1986, and it brought together all the local governments. Together the local authorities of the region plus the CWRSC were responsible for an annual budget of 4 billion ZAR by the early 1990s (in 1998, 4.4 rand [ZAR] = 1 United States dollar [USD]).

The classic structure of South African local governments and that of Greater Johannesburg in particular (excluding the management committees for the coloured and Indian areas) were replicas of the British model in most respects. In other words, each local government had a council that was directly elected on a ward basis, a small executive elected by the council, and a committee-based policy-making system. The chief executive officer was the town clerk, and the administration was structured according to departments, with executive directors as departmental heads.

The organizational culture came with the British notion of having hierarchical, vertically integrated departments led by

professionals and controlled from the top through a system of paper-based directives and upward reporting. Frontline workers were disempowered, and services were rendered to mass markets with little differentiation and negligible consumer feedback. During the late 1980s, attempts were made to replace this extremely inefficient management model with scientific management approaches borrowed from US and UK private-sector models. Departments became cost centres, departmental heads were supposed to be managers first and professionals second, and paper-based directives, rules, and reports were replaced with financial accounting, zero-based budgeting, and outputs. This management approach was never properly implemented, leaving a mishmash of both the old professional and the new corporate management models. The implementation was half-baked because management consultants who drove the process took an externally imposed expert-based approach that empowered the management to redesign things from the top, with little active involvement or understanding from middle management and frontline workers. Resistance and the costs of retrenchments also helped to confound the best plans of the human-resource directors and their consultants.

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After many months of very intensive negotiations involving numerous deadlocks and breakthroughs, the Metropolitan Chamber finally adopted a constitutional-institutional-financial model that provided in essence for a strong TMC and four MSSs, with an arbitration procedure to determine precisely how many and what the boundaries of the latter should be. After public hearings, the arbitrators announced the final result by declaring that there would be seven MSSs. This position, however, was overturned in August 1995 when the Gauteng provincial government succeeded in obtaining a court ruling that supported having only four MSSs.

The basic elements of the system of metropolitan government in Greater Johannesburg, as negotiated by the Metropolitan Chamber, can be summed up as follows:

- All preexisting local governments were dissolved, and all policy control over their administrative structures, staff, assets, and liabilities were transferred to the TMC.
- The TMC was given a 120-member council, appointed by the Metropolitan Chamber, and an executive committee, with an executive chairperson elected by the TMC.

- The TMC appointed a chief executive officer, who in turn established a core metropolitan administration.
- Although it was agreed that powers and functions should be distributed between the metropolitan and submetropolitan levels, metropolitan-wide powers and functions — such as bulk infrastructure, planning, financial policy, economic development, environmental management, and transportation — were reserved for the TMC.
- An important innovation was the provision for further decentralization to the MSS level. This was possible by way of a mechanism that required MSSs to develop a strategic management framework as the basis for requesting the transfer of TMC-level powers and functions to the MSSs. This framework must be motivated in terms of predetermined criteria, built into the agreement, and the TMC can only deny the request by giving adequate reasons in terms of these criteria.
- A sophisticated change-management approach was built into the agreement that defined the process and principles for transforming the former administrative structures and systems to fit the newly established constitutional structures and to be more oriented to development (more on this below).

These points relate mainly to the pre-interim phase. It was envisaged that sometime in 1995, the political representatives appointed by the Metropolitan Chamber to the new structures would be replaced by elected representatives. In accordance with the *Local Government Transition Act*, these elections were to ensure that 40% of all TMC representatives were elected on the basis of proportional representation against party lists for the metropolitan area as a whole and that the other 60% were to be elected on a ward basis, with a built-in weighted vote in the former white areas. These elections took place in November 1995.

Given that the governance of Greater Johannesburg was transformed via multistakeholder negotiations, the agreement is testimony to the advantages of a process-driven transformation of governance with management knitting together new patterns of knowledge, relationships, and institutional arrangements to support the formal process of change. The change-management

approach was probably the most innovative aspect of the agreement because it demonstrated an understanding of the critical connection between newly established constitutional structures and the need to create results-oriented citizen-friendly development administrations. The change-management approach was premised on the assumption that organizational change should be a process managed in accordance with the following principles:

- Organizational change should be strategy led, that is, structures and systems should flow from an agreed strategy;
- Strategic vision must be collectively generated by groups of senior and middle management, as well as including frontline workers, rather than determined from the top via a conventional strategic-planning approach;
- The knowledge base for organizational change should be derived from expertise located within the organization at all levels, rather than being derived from outside management consultants operating in accordance with predetermined expert models; and
- The quality and sustainability of organizational change depend on the degree to which leadership at all levels is developed and empowered to understand and guide the change process.

It has been agreed that the change-management process will be jointly driven by management (which is still largely white) and the municipal trade unions (which are largely black). These approaches to the type of change-management process outlined above will fundamentally challenge the rigid, hierarchical, bureaucratic, and user-unfriendly administrations that have developed over the decades to serve mainly the white citizens. Instead, as evidence from implementation of the process has already begun to reveal, the process generates a vision of governance that is results rather rule driven, citizen led rather than citizen oppressive, outward rather than inward oriented, empowering rather than domineering, flexible rather than rigid, market responsive rather than monopolistic, and, above all, development oriented rather than exploitative. This approach to change management was clearly influenced by a governance approach aimed at building trust, reciprocity, accountability, and capacity, particularly given

the context of transition, from a race-based regime to a nonracial, democratic mode of governance.

By the time of writing, in early 1996, it was, however, clear that there was still one major outstanding problem with the new two-tier metropolitan government for Greater Johannesburg. In brief, this was the failure to reach consensus on what the distribution of powers and functions should be between the metropolitan and substructural (primary) levels. The Greater Johannesburg Transitional Metropolitan Council (GJTMC) was adamant that it should be given the powers and functions of a genuine metropolitan government, with the capacity to govern the metropolis as a whole — the Toronto model was often cited as a sound example of this. The MSSs and the Gauteng provincial government, however, believed that it would be preferable to transfer substantial powers to the MSSs. These two levels of government shared this view for different reasons: the MSSs were aware that the GJTMC's excessive control could undermine their autonomy and accountability, and the Gauteng provincial government was clearly worried that an overly powerful metropolitan government would have the capacity to challenge its authority and political leadership. These competing interests led to interminable battles over what powers and functions should be located at which level. This has major implications for service delivery because the change-management strategy depends on reaching an agreement on powers and functions. For a sector like solid-waste management, it meant that no concrete forward planning was possible because the GJTMC and the MSSs were unable to establish a satisfactory division of responsibilities between the two levels. This institutional and political impasse is a fundamental aspect of waste-management issues in Johannesburg.

## **SOLID-WASTE MANAGEMENT IN TRANSITION**

### **INSTITUTIONAL ARRANGEMENTS**

The GJTMC is responsible for providing a refuse-collection and disposal service for the areas now integrated into this metropolitan entity. Before the GJTMC was established, each racially structured local authority in the Greater Johannesburg area had its own system for solid-waste management in line with national policy under apartheid. Metropolitan functions, such as selecting

waste-disposal sites, were managed by the former JCC. This meant there were four solid-waste systems:

- A fully contracted service, with provision of labour and vehicles;
- A partially contracted service, with the provision of vehicles with driver and assistant, the labour and supervision being provided by the administration;
- A full service provided by the administration; and
- A community-driven collection service, as no service was provided.

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The breakdown of the staffing and budget for the administrations in the GJTMC is as follows:

- *JCC* — Number of people employed in the department, 1 800; budget, 107 million ZAR; number of people serviced, 867 000; ratio of staff to serviced population, 1 : 482; budget per number of people serviced, 123.41 ZAR/person per annum; frequency of service, minimum of once a week, with the provision of a refuse bin and the separate issue of two refuse bags per bin each week. A regular street-cleaning service is also provided. The full spectrum of other refuse-collection and -disposal services is provided.
- *Sandton City Council* — Number of people employed in the department, 265; budget, 16 million ZAR; number of people serviced, 171 000; ratio of staff serviced to population, 1 : 645; budget per number of people serviced, 93.57 ZAR/person per annum; frequency of service, minimum of once a week, with the provision of a refuse bin but with refuse bags not supplied. A limited street-cleaning service is provided.
- *Roodepoot City Council* — Number of people employed in the department, 152; budget, 10.5 million ZAR; number of people serviced, 176 000; ratio of staff serviced to population, 1 : 1 158; budget per number of people serviced, 59.66 ZAR/person per annum; frequency of service, minimum of once a week, with refuse bags not supplied. A limited street-cleaning service is provided under contract, and the staffing and costs are not included.

- *Randburg Town Council* — Number of people employed in the department, 125; budget, 5.8 million ZAR; number of people serviced, 130 000; ratio of staff serviced to population, 1 : 1 040; budget per number of people serviced, 44.62 ZAR/person per annum; frequency of service, minimum of once a week, with refuse bags not supplied. A limited street-cleaning service is provided.
- *Soweto City Council* — Number of people employed in the department, 468 (including contracted staff); budget, 29.7 million ZAR; number of people serviced, 1 129 000; ratio of staff serviced to population, 1 : 2 412; budget per number of people serviced, 26.31 ZAR/person per annum; frequency of service, minimum of twice a week, with refuse bin supplied. A limited street-cleaning service is provided; however, problems with large dumps on street corners are never properly addressed.
- *Alexandra City Council* — Number of people employed in the department, 142 (including contracted staff); budget, 7.27 million ZAR; number of people serviced, 327 000; ratio of staff serviced to population, 1 : 2 303; budget per number of people serviced, 22.23 ZAR/person per annum; frequency of service, twice a week, with refuse bin supplied. An infrequent street-cleaning service is provided by contractors. The contract does not include increased densification or service in certain squatter camps. Problems with large dumps of refuse are not adequately addressed.
- *Ennerdale Town Council* — Number of people employed in the department, 29; budget, 1.5 million ZAR; number of people serviced, 43 000; ratio of staff serviced to population, 1 : 1 483; budget per number of people serviced, 34.88 ZAR/person per annum; frequency of service, minimum of once a week. Almost no street cleaning is provided.
- *Lenasia South* — Number of people employed in the department, 54; budget, 2.2 million ZAR; number of people serviced, 45 600; ratio of staff serviced to population, 1 : 884; budget per number of people serviced, 51.16 ZAR/person per annum; frequency of service, minimum of once a week. Almost no street cleaning is provided.

- *Dobsonville Town Council* — Number of people employed in the department, 67; budget, 1.1 million ZAR; number of people serviced, 170 000; ratio of staff serviced to population, 1 : 2 537; budget per number of people serviced, 6.47 ZAR/person per annum; frequency of service, minimum of twice a week. Almost no street-cleaning service is provided.
- *Settlements administrated by the Transvaal Provincial Administration* — Number of people employed in the department, 3; budget, 0.63 million ZAR; number of people serviced, 85 000; ratio of staff serviced to population, 1 : 28 333; budget per number of people serviced, 0.74 ZAR/person per annum. Service almost never occurs in areas occupied by squatters or informal housing units in the peri-urban areas to the south of Johannesburg.

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It should be clear that the legacy of apartheid policies in Johannesburg was a highly uneven distribution of resources for the delivery of solid-waste services. This reflected the general inequality of service provision under the apartheid system as a whole. Given the overall political context, this was reflected in massive differences in the quality of service between white and black areas, which in turn, were a cause of the sustained rent and service-charge boycotts that social movements mounted. By the time the GJTMC took over solid-waste management, payment for service had still not been made, despite calls by local community and political leaders to resume payment.

In line with the *Local Government Transition Act* and the agreement negotiated in the Central Witwatersrand Metropolitan Chamber, responsibility for all the solid-waste departments was transferred from the disbanded local authorities to the GJTMC. A joint administrative structure was established in January 1995, comprising department heads, who were charged with responsibility for keeping service provision going until the entire sector could be transformed. This effectively meant that the preexisting solid-waste departments were politically accountable to the GJTMC but remained structured according to the previous racial division. The challenge for the GJTMC was to transform the 11 departments in each of the administrations into 1 metropolitan solid-waste department responsible for the bulk of solid-waste management and 4 primary-level solid-waste departments to be, in future, politically accountable to the MSSs. This, however, could only be worked out



once the Gauteng provincial government (which is legally responsible for the regulatory framework of local government in Gauteng province) clearly defined the distribution of powers and functions between the GJTMC and its four MSSs. At the time of writing (first quarter of 1996), this had not yet been clarified.

The reason for the delay has been the Gauteng provincial government's inability to agree, at a political level, on a conception of metropolitan government it is willing to promote. A weak metropolitan government would have meant promulgating ordinances that transferred as many powers and functions down to the MSSs as possible, including virtually every aspect of solid-waste management other than regional waste dumps. A strong metropolitan government model would imply weak MSSs and the creation of a strong centralized metropolitan solid-waste department, with the MSSs playing an agency role. A middle position would imply the division of solid-waste functions between a metropolitan solid-waste department and the MSS solid-waste departments. However, it was unclear at the time of writing where the dividing line was to be drawn.

The only clear policy guideline that the GJTMC had set during the course of its first year of existence was that the resources for effective and efficient service delivery across Greater Johannesburg should be redistributed to overcome the inequities of the past. This, however, was easier said than done, for reasons of the unevenly developed infrastructure, financing, and staffing capacities of the administrations in different parts of the city. This can be highlighted by breaking down the 11 preexisting administrative structures into the newly constituted MSSs in the following way:

	Southern MSSs (%)	Northern MSSs (%)	Western MSSs (%)	Eastern MSSs (%)
JCC	59	19	—	22
Soweto				
Lenasia South				
Ennerdale				
TPA	72	7	21	—
Sandton				
Alexandra	—	—	—	100
Randburg	—	96	—	4
Diepmeadow	—	54	46	—
Roodepoot	—	—	100	—

Note: JCC, Johannesburg City Council; MSS, Metropolitan Sub-Structure; TPA, Transvaal Provincial Administration.

The reorganization of the metropolitan solid-waste system will need to take into account the nature and quality of the existing services. The existing solid-waste departments currently use a mix of solid-waste methods, ranging from advanced postindustrial systems to simple site-and-service systems.

## **FINANCING OF WASTE MANAGEMENT**

The current budgets are calculated on the basis of historic inadequacies, with the result that the estimates for the current financial year will be overexpended. The methodology is to provide for the overexpenditure in previously black areas. The operating budget for the entire metropolitan region is estimated at 348 million ZAR, which is to provide for the full cost of a uniform service throughout the region. The allocated budget is currently sufficient to remove the accumulations of refuse and to provide a sustainable service to all areas, thus reducing the deficit in the previously disadvantaged areas. The capital requirements have been estimated at 13.5 million ZAR, including the costs for establishing an incinerator and a landfill site. Payment for the service is determined via a tariff approved by the Metropolitan Council, using the agreed-on principle of cross-subsidization. The charges are allocated according to stand size and affordability; a large stand pays considerably more than a small stand or squatter shack. The nonpayment for refuse collection is continuing in the disadvantaged areas, although the service is provided. The current outstanding debt is 30 million ZAR for the metropolitan region. The funding of the shortfall will be carried by the rates account and will be transferred as a deficit to the 1996/97 estimate. The solid-waste operating budget is 8.7% of the total operating estimate for 1995/96. Neither the provincial nor the central government pays a subsidy for the cost of solid-waste removal. The cost of refuse removal is about 5% of the total cost to each ratepayer. A special effort is envisaged to ensure recovery of the cost of the refuse-collection service.

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## **SERVICE MAGNITUDE**

The area serviced by the GJTMC covers nine administrative areas, with about 500 000 refuse-collection points. The bulk of these collection points are found in relatively well-developed urban areas,

200 mainly the former white suburbs. On average, 6 200 t is disposed of in this region each day, at seven sanitary landfill sites. In accordance with the solid-waste bylaws for this region, refuse bins are supplied, together with refuse bags, for each service user. These bags and, where applicable, refuse bins are collected and removed at least once a week, on average, from each property. This average, however, masks the disparities between some former white suburbs where collections are made regularly once a week and some informal settlements where refuse is irregularly collected from central points once in 3 weeks. Streets are cleaned according to litter-generation patterns, and the frequency of cleaning varies from irregular cleaning in the former black townships and low-density suburbs to intense cleaning in the CBDs. Street cleaning is done by the staff of the solid-waste departments. Community-based approaches have sometimes been used. In this approach, the community leaders, in conjunction with the officials, select people from the community to collect and remove refuse from the informal settlements or squatter camps to a designated collection point. These people are paid to do this work, either through an employment contract or through donations from institutions, such as the Keep South Africa Beautiful Association. The services within the sites are contracted to an acceptable standard; however, the removal from the collection points is problematic. The refuse bags provided to the community are often dumped at the collection point, adding to the general litter problem. The cost of the service is not being recovered, as the communities expect to be paid for keeping their own areas clean. The areas where this type of service is provided are Orange Farm in the Southern area and Swetla in Alexandra. In some areas, as a result of poor refuse-collection service, as well as inadequate awareness of the correct use of the service, illegal dumping of refuse still occurs, which reduces environmental quality. The consequences of illegal dumping of refuse are well documented. It adds an operating cost that no community can afford. Refuse dumped on open land or in the street increases the populations of rodents, vermin, and flies. The high summer temperature makes the heaps putrefy, and they are therefore prone to emitting strong odours. The illegal dumping of refuse is a consequence of inadequate service, combined with tariff avoidance. The type of refuse dumped in areas such as Dobsonville and Soweto is basically domestic with high levels of ash. Animal carcasses are also dumped on street corners, as no service is provided

for removing them as in the previous black townships. The illegal dumping of commercial and industrial refuse complicates its removal and adds to the risk of environmental damage.

The cost of removing contained refuse is 110 ZAR/t, and that of removing uncontained, illegally dumped refuse is more than 750 ZAR/t. The control of illegal dumping is problematic, as most people consider illegal dumping socially unacceptable, and it therefore usually occurs at night to avoid the neighbours' observing it. Efforts to curb refuse dumping have, to date, been sporadic and had little planning, thus little success. A large problem in the CBD of Johannesburg is that of tariff avoidance by shopkeepers who dump their refuse on the pavement. The increase in street hawkers congesting the pavements has aggravated this problem. The conflict between established businesses in the formal sector and the emerging contingent of street hawkers has had the result that numerous complaints are made about street litter and the blame goes to the street hawkers.

Waste collection, transportation, and disposal are done primarily by the staff of the solid-waste departments, using capital equipment paid for by the local authorities. However, in certain former black areas, where staffing has been a serious problem over the last 10 years, certain aspects of the system are contracted out. In Soweto, the service was contracted out in 1987, as a result of the workers' going on strike to disrupt local government. The contractor provides door-to-door service and charges a fixed rate per tonne. The contractor is from the white-minority group and employs people living outside Soweto. This results in a high level of anger among the people living in Soweto. Cooperation between the community and the contractor is not very satisfactory, and this is one of the major factors contributing to the poor service in Soweto.

In areas such as Johannesburg, contractors are engaged to supply 21-m<sup>3</sup> refuse-compaction vehicles, along with the driver and operator. This is largely due to the poor performance of the repair service of fleet managers of the JCC. The backup ratio for vehicles in this fleet was 1 : 1, thus doubling the cost. The fleet supplied by the contractors has a backup ratio of 1 : 6. This method for supplying vehicles has been successful and has reduced the cost of the service to users.

The landfill sites provide a service for municipal solid waste. Greater Johannesburg has seven landfill sites, with a capacity to meet the needs of the area. Each site has its own life span, with the

shortest (Kya Sands) ending in 1999 and the longest (Goudkoppies) ending in 2056. The GJTMC is considering two new sites, with a possibility that future solid-waste disposal arrangements will take into account the need to recycle. To date, however, approaches to solid-waste disposal have been focused more on efficiency than on sustainable resource management. This is why very limited recycling takes place.

The most serious problem with existing systems for solid-waste disposal is that the landfill approach is inappropriate for disposal of hazardous industrial waste. A number of private-sector waste-management companies have become increasingly involved in attempts to remedy this, but their environmental practices have led to numerous conflicts with the residents of nearby suburbs. It is now generally recognized in the waste sector nationally that the available hazardous-waste landfill sites are inadequate to meet the needs of industrial development in South Africa and, indeed, that the approach to hazardous waste in general is inappropriate.

## **CURRENT REFUSE-COLLECTION METHODS**

Every service point in the formal housing areas in the former black townships and white suburbs is issued a standardized bin, and generally each week every property is issued two refuse bags per bin when the full bags are collected. Although in some areas collection is less frequent because of capacity problems, this system is generally used throughout the metropolitan region, and each area is serviced on a particular day on a regular basis.

A task team made up of representatives from each of the administrations coordinates the schedules for the whole of Greater Johannesburg. The task team now focuses on areas in each of the MSSs, as refuse collection is the responsibility of the MSSs. The type of vehicle used for this is fitted with a compactor unit with loading capacity of 21 m<sup>3</sup>, or about 10 t refuse per load. The vehicles should be expected to transport, on average, 30 t of refuse to the landfills on a daily basis, 5 days a week. This, however, is not achievable in all areas in the region, for a number of reasons. The primary reason for low productivity is a poor balance of rounds and a poor work ethic in some areas, which is due to the low level of supervision and almost no management of the service in the

black townships. The other factor is the frequency of breakdowns of council-owned vehicles and the lack of adequate backup.

In each refuse-collection round in this region, nine workers and a supervisor are allocated to a refuse truck on a daily basis. Four of these workers are used to load the refuse into the truck, and the remaining five go ahead of the vehicle and issue two refuse bags to each service user. The filled refuse bags are collected by the refuse worker and stacked at a point where the refuse truck stops and the workers collect the accumulated bags. With this method, the controls on the refuse-collection process are simplified, as the entire process is ergonomically designed for optimum use of both the workers and the vehicle.

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The solid-waste department of the former JCC is responsible for taking care of 50 % of all solid waste in Greater Johannesburg. Because of the magnitude of this undertaking, this department has been able to build up a core of expertise and an infrastructure that is a key strategic resource for the city as a whole. Owing to the cross-subsidization of JCC from the township resource base, the JCC has been able to direct considerable budgetary resources into the solid-waste department, effectively providing a First World service to an island of privileged whites in a racially secluded enclave in the middle of a Third World metropolis. As this department was never required to service poor township areas, where people would have found it difficult to pay the service charges, it was possible to retain First World standards. This, however, is all going to change, as the task of meeting a much wider set of needs will begin to eat into this core of capacity and resources.

Solid-waste services in greater Soweto, Randburg, Sandton, Ennerdale, and Alexandra are similar to those provided in the former white areas of Johannesburg. In Soweto, Diepmeadow, Randburg, Sandton, and Ennerdale, the supply of refuse bags to the service user is problematic, as these areas do not have the staff infrastructure to deliver the refuse bags on a weekly basis. The refuse rounds, although planned for collection, are based on a system of loading from the service point directly to the refuse-collection vehicle. The worker allocation varies from area to area but is generally 10 workers per refuse round, with 6 people loading the vehicle and 4 people bringing the bins or bags to the side of the road for collection. This system does not increase the cost per bag; however, it increases spillage of refuse in the loading process, thus adding to the street-cleaning cost.

## **WHEELED BINS**

In Roodepoort, Lenasia Southeast, and the CBD of Johannesburg, a mobile wheeled bin system is in place. It is a 240 L bin, which is emptied into the back of a refuse-compactor vehicle by means of a lifting mechanism. The labour allocation is similar to that of the previous system and requires that the bins be moved from the collection point to the back of the vehicle and replaced after they are emptied. These bins are supplied to the affluent areas and give the occupant additional refuse storage space in suburban areas. In the CBD, this system was introduced to accommodate the limited storage area in buildings, as well as to reduce refuse spillage during the loading process.

The disadvantage of this system is that the lifting mechanism reduces the payload of the vehicle, increasing the cost per kilometre-tonne. As well, refuse-bag loading is faster than with the lifting mechanism. The advantages, however, in many ways outweigh the disadvantages, as the system reduces litter and spillage. The system gives the user increased storage, and the hinged lid reduces the attraction of flies and other vermin. The cost of the system is high and inhibitive in a developing community. The cost of the wheeled bin is triple that of a standard bin, and the slower loading times means that 25 % more vehicle- and person-hours are required. Because it is necessary to provide a service to the whole community, the additional resources required discount this option.

## **INFORMAL SETTLEMENTS**

The service to the informal settlements (squatter camps) has been rendered on an emergency basis. A 5.5-m<sup>3</sup> bulk-refuse container is allocated to every 200 shacks. In theory, shack dwellers deposit their refuse in these containers. The containers are emptied on a regular basis, normally at least once a week. This type of service has the problem that the refuse is dumped around the container, and the refuse in the container is set on fire (as a way of getting rid of it when too much collects around the bin) and smoulders for days, polluting the atmosphere. These containers are placed at points in the settlements after negotiations with the settlement leaders, and constant community liaison is required to ensure the success of this service. As not all solid-waste departments employ personnel dedicated to this activity, the system frequently breaks

down, giving the impression in the settlements that local government's waste-removal service is inadequate.

Instead of trying to improve the container system in the informal settlements, the new administrations instructed the solid-waste departments to change over to the refuse-bag system. Although this could increase the cost per unit by as much as 2.10 ZAR in areas that can least afford this level of service, it is politically imperative to demonstrate the normalization of service provision to a uniform standard throughout the metropolitan region. About 20 recognized self-standing informal-settlement areas can be found in the region, with about 50 000 shacks, housing an estimated 250 000 people. It will cost local governments 13.50 ZAR/household to extend the conventional bin-bag system to all these households, which will be recovered via the policy of cross-subsidization. Alternative community-based approaches have unfortunately not been fully considered, despite their having proven successful in some areas. The vision of refuse-collection methods will have to accommodate the needs of the overall community, and all the methods will have to be tested to ensure an appropriate level of service and cost.

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## **STREET CLEANING**

The point-to-point refuse-collection system moves the refuse from the house or business to the landfill site but does not take into account the litter generated or the illegal dumping of refuse in open public spaces. To maintain an acceptable standard of street cleaning in open public spaces, the city needs to provide a street-cleaning service. The litter-generation patterns are monitored, and workers are deployed to sweep and collect the litter for proper disposal. About 780 km of streets are swept within commercial areas, and 464 km are swept within residential areas (including portions of the motorways) on a daily basis, removing an average of 150 t/day of litter throughout the metropolitan region. In some areas, the amounts of litter and illegally dumped refuse equal that removed via the point-to-point refuse-collection service. Certain streets of the CBD are regularly flushed with water and disinfected in places where these streets are fouled by pedestrians who defecate on the pavement because there are no public toilet facilities. Although an inadequate point-to-point refuse-collection system in certain areas



may explain the need for some people to dump their refuse illegally in public spaces, education programs are also clearly very much needed to improve people's awareness and understanding of appropriate practices. The city also clearly has an opportunity to use informal labour for street-cleaning purposes. This, however, would run afoul of formal labour-relations practices and would be unacceptable to the trade unions.

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## **PRIVATE-SECTOR INVOLVEMENT**

The private sector is getting involved in waste management in a number of ways. The private sector comprises large service users, who demand a high level of service, and this sector is influential in determining policy. Owing to the attraction of the metropolitan region for investment, the needs of the private sector in service standards cannot be ignored. The private sector has started a number of initiatives in service delivery that are largely independent of metropolitan government. The provision of funding to local communities to keep their own areas clean is part of the private-sector involvement. The use of additional private resources to clean the streets adjacent to their properties is welcome because these activities reduce the need for municipal cleaning. The use of the private sector in the provision of service has been both successful and unsuccessful. In this regard, the experiences in Soweto will have a direct bearing on future policies.

## **COMMUNITY PARTICIPATION**

The community can have many levels of involvement in service delivery. Four forms of participation, however, will be of concern here, namely, formal political representation in policy formation, organized community involvement in policy formation, citizen participation in daily operation and maintenance, and involvement of contractors and labour in the execution of service delivery, or what can be referred to as economic participation.

Up until the dissolution of the apartheid form of local government and the establishment of the GJTMC and its MSSs, formal political representation and organized community involvement via ratepayers' associations were limited to the white community. These forms of representation of community interests

constitute a recent phenomenon for the black communities. It is, therefore, premature to comment on the efficacy of political representation via the newly elected councillors. However, if for all communities the new system replicates the patterns that prevailed in the white community before deracialization, then political representation will have absolutely no impact on the solid-waste system, beyond the approval of budgets and minor adjustments to service standards. Service levels, long-term planning, and day-to-day management have traditionally been insulated from direct political intervention by elected representatives. White ratepayers' organized community involvement in policy may have affected service standards and operating deficiencies but has rarely had input into service levels, technology, or management systems. The civic associations that formerly represented black-community interests have been severely weakened because their best people have been creamed off for local government. These associations have to be rebuilt before the organized community involvement of black communities will be possible again.

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This leaves citizen participation and economic participation. If solid-waste removal is to be efficient, citizens need to be aware of their daily responsibilities, which means not simply the abstract idea of citizen commitment to the system but knowledge of daily routines, collection timetables, standard procedures (such as what kind of bags are acceptable), and location (where bags should be deposited), etc. Whereas this has been well developed in the white suburbs, with decades of awareness campaigns and habits combining to ensure the effective participation of the users, this has not been the case in the former black townships. Instead, irregular and inadequate services, constantly changing collection systems, poor relations between citizens and officials, corruption, and lack of investment in awareness have combined to ensure low levels of commitment to the service and widespread ignorance (and even apathy) about timetables, procedures, and routines. This is reflected graphically in the continued failure of rent and service-payment schemes after April 1994. Political legitimation is not the only factor in the relationship between users and the service provider. Another is the long-term process of building a cooperative culture of mutual trust between users and the service provider.

The most promising area in which to expand community participation is doubtless going to be that of the economic participation by certain community interests in service delivery.

208 This began long before the end of apartheid. During the 1980s, the National Party government made numerous attempts to co-opt supportive elements in black communities and incorporate them into the service-delivery system as subcontractors. With the onset of change in 1990, these practices were expanded because black business people began to lobby for a policy of contracting out government services. By the mid-1990s, with the ascendance to leadership of politicians who were connected to these emerging black business interests, the need to formalize economic participation in service delivery had become generally accepted at both the political and managerial levels. Although for-profit contractors are the primary actors in this emerging arena, nonprofit organizations in housing and environmental conservation have also expressed interest in participating in some aspect of waste management, particularly community-based waste collection in squatter settlements. Organizations representing the interests of the unemployed have also added their voice, calling for labour-based or labour-intensive waste-management policies, or both.

Economic participation is clearly an important stimulus to other forms of participation. Bringing in networks of contractors led and staffed by people from the communities creates an economic interest in the success of the solid-waste system, which can act as a catalyst for organized community involvement in policy formation, especially if aspirant contractors also occupy leading positions in community associations, such as in Orange Farm. Because of the economic status of contractors, they are also generally well placed to influence popular perception and cultural norms in their communities. This can lead to improved user participation in the service-delivery system.

In conclusion, it needs to be pointed out that since late 1995 all four modes of community participation have been evident, taking different forms, but with economic participation being the most effective. Fortunately, during the 1990s, considerable space exists for this kind of reciprocity, which has been reinforced by the introduction of democratic accountability. However, building trust between users and service providers and between the solid-waste departments and contractors will depend to a greater extent on whether governing capacities can be significantly improved.

## **INSTITUTIONAL OPTIONS FOR THE GOVERNANCE OF SOLID WASTE**

The future governance of solid waste in Johannesburg must address three issues:

- Administrative reorganization into a two-tier metropolitan system, with clear responsibilities at both levels, including the appropriate financing mechanisms;
- Redistribution of financial, staffing, and infrastructural resources to overcome the historic inequalities in the levels and standards of service provision; and
- Establishment of partnerships between the public, private, and community sectors to maximize the mobilization of public, private, and community resources.

The Solid Waste Directorate of the GJTMC is clearly the leading stakeholder when it comes to finding ways of facing these challenges. The Solid Waste Directorate has as its mission “to improve the quality of our environment by effectively managing the waste stream of our community” (SWD n.d.)

The refuse-collection and -disposal systems have been established over many years, and the policies determining these aspects may be found in applicable legislation. In terms of both national and provincial legislation, it is required of a local authority to create a refuse-collection system; however, no guidelines are available on the method or frequency of service. This directorate has formally accepted, at the policy level, that three factors will affect future selection of waste systems:

- The affordability of extending the high-standard system developed in the white areas to the whole metropolitan area, as the tax base is likely to be incapable of supporting this (thus both cross-subsidization and a change of standard would be required);
- Pressures for increased community involvement in waste management, especially smaller contractors; and
- The need for thorough awareness of, and education on, waste issues.

210 The Solid Waste Directorate began in early 1994 to rethink the governance of waste. To date, the mode of governance in the white areas has been the traditional local-authority model. This implies centralized management following strict guidelines and procedures, with political leadership playing the role of the watchdog over policy and the budget. Administration–community relations have been distant and, at best, mediated by the political leadership. In the black areas, service was irregular and poorly financed, and the administration had very poor relations with the community. Where innovative inclusion of small contractors has been attempted, the success levels have not been very high, for reasons primarily of poor contract management.

To tackle these issues, the Solid Waste Directorate, working in conjunction with the other solid-waste departments, initiated a policy-development process. The Cleansing Task Team drafted the policy document to be discussed with the community and the newly democratically elected councillors. At the time of writing, this process was incomplete. However, the policy was noted and agreed to in principle by the Metropolitan Council.

The policy process was premised on the need to provide a sustainable refuse-collection and -disposal service. To achieve this, the Solid Waste Directorate adopted the following strategic objectives:

- To identify clear areas of immediate need;
- To provide an efficient and effective service to all refuse generators, according to set quality and productivity standards;
- To establish systems for incorporating the communities' needs into the decision-making process; and
- To establish structures and systems of management and control to ensure the implementation of policy.

Policy guidelines have been accepted as the basis for the institutional reorganization and management of the system to ensure delivery of the following services:

- *Refuse collection* — The Solid Waste Directorate has accepted that all refuse generated on all residential and nonresidential properties requiring regular removal for health reasons should be stored, handled, and removed as efficiently and effectively as possible, on a metropolitan-wide basis. The acceptance of this guideline marks a

decisive shift away from the discriminatory approach to service delivery during apartheid.

- *Street cleaning (street sweeping and litter collection)* — The purpose of the street-cleaning service is to prevent environmental pollution by maintaining the cleanliness of streets and publicly owned places.
- *Removal of garden refuse, building materials, and bulky and special domestic refuse* — The purpose of this service is to remove bulky excess and other wastes generated on an irregular basis and wastes that cannot be removed through the normal refuse-collection system so as to minimize fire and health hazards and to maintain the environment. This service includes provision of sites for people in the community to dispose of their garden refuse, thus discouraging illegal dumping of discarded building material.
- *Refuse disposal* — All refuse generated must be disposed of in accordance with all relevant legislation and applicable standards. All refuse-disposal sites are to be operated in accordance with the relevant legislation.
- *Maintenance of service standards* — Service standards have been developed to measure the quality of service and the performance of the service provider.

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The *Solid Waste Bylaws* of South Africa have been amended to establish the regulatory framework for a two-tier metropolitan solid-waste system. In essence, the metropolitan government will be responsible for landfills and incineration, and the MSSs will be responsible for refuse collection, street cleaning, and garden-refuse collection and sites. The principles contained in these bylaws are the following:

- All service users have a right to a refuse-collection service;
- All refuse collected will be disposed of in an environmentally acceptable manner;
- All polluters will be prosecuted; and
- All persons have a duty to keep their environment free from refuse.

The *Solid Waste Bylaws* incorporate these principles and set out the core policies governing the management of solid waste in the metropolitan region.

These policies and principles strongly reflect a desire to redistribute resources to ensure the delivery of an efficient and effective solid-waste service to all communities on a uniform basis. To this extent, the new mode of democratic accountability in general has resulted in a change in the governance of solid waste.

However, from a governance point of view, these policies and principles can be criticized in three ways. First, none of the policies or principles refer explicitly to the need for or structure of public-private-community sector partnerships. This is particularly surprising, given the acknowledged financial constraints and limited infrastructure of the solid-waste departments. The policies and principles, in short, effectively narrow the space for reciprocity, and this could, in turn, make it difficult to build new relations of mutual trust. Second, none of the policies and principles refer to the need to change from a distant, technocratically competent mass-delivery culture to a more service-oriented development administrative culture that understands governance. A third criticism might be that the intention is to preserve the aesthetic and health standards of the social environment. Very little is done to make alternative use of waste, which the sustainable approach to resource use tends to advocate. This third criticism is directly related to the second and first because, as experience in the city of Curitiba in Brazil demonstrates, a sustainable approach to resource use depends on the kinds of partnerships and interdependencies that good governance implies.

Taking into account the resource constraints and the wide range of socioeconomic conditions across Greater Johannesburg, the Solid Waste Directorate has accepted, at the policy level, that a number of methods will be required to collect refuse from the various types of communities and to transport it to an appropriate disposal facility. It has also accepted that each of these methods will have a different impact on the levels of service provided. The Solid Waste Directorate has considered the following delivery methods and approaches.

## **SITE AND SERVICE**

The site-and-service method will be used primarily in the informal settlements. A bulk refuse container (a so-called skip) will be placed on an accessible open piece of land for use by the

community. In each case, the community is to be consulted on where to locate the skip. The intention is to have people in the community place their refuse and unwanted material in the container and to have the container periodically emptied. The problem with this approach is that refuse is blown out of the bulk container by the wind. The area around the container is usually heavily littered, and often the refuse in the container is set on fire and smoulders, causing air pollution and a further fire hazard. To prevent this, the skip approach requires that the community itself take responsibility for ensuring that refuse is placed in the container. However, the GJTMC and the MSSs have had no intention of doing anything other than placing the skip and removing it when it is full. Without the necessary investment of time, resources, and personnel for the purpose of building the awareness of the community, the chances of success for this approach are very low.

## CONTRACTOR

The *Solid Waste Bylaws* stipulate that no person may render a refuse-collection service to a service user without the written consent of the GJTMC. The GJTMC may also appoint an agent or contractor to render a refuse-collection service but retains accountability for this service to the electorate and to the higher levels of government. The process of appointing such an agent or contractor must comply with the financial regulations.

The contractor approach aims to enhance the economic participation of people in the community. A contractor is contracted to collect the refuse from a given community for a fee. The contractor then distributes refuse bags throughout the community and has the choice either to pay anyone who returns the bag filled with refuse or to collect the refuse directly. All litter and refuse are collected by the contractor and placed in a bulk refuse container (skip) that is owned and serviced by the GJTMC. The cost of transporting the skip to and from the site and disposing of the refuse in a landfill is not recovered from the community and must be funded, therefore, by the GJTMC or its MSSs, or both.

Although the main advantage of this approach is that it provides aspirant black business people with an opportunity to go into this type of business, supported by local government, it has several problems. First, it requires a high level of cross-subsidization that



better-off constituencies may well resent and therefore oppose. Second, the skip is the main collector of refuse, and the same problems occur with litter as in the site-and-service approach, albeit they are diminished because of the role of the contractor. Third, the contractor, not the GJTMC, is responsible for the service within the local community, and there is concern that this could undermine political accountability in the use of taxpayers' money for the delivery of a service that neither the GJTMC nor its MSSs directly manage.

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## **COMMUNITY-BASED WASTE MANAGEMENT**

Community-based approaches seek to use resources and labour drawn from the local community. This is what distinguishes the community-based approach from the contractor approach, because the contractor does not necessarily come from the local community.

The GJTMC has considered a community-based approach, whereby people in the community collect and transport the refuse from their area to a selected bulk-storage site or a disposal facility. A method of payment is then negotiated within the community, as well as between the community representatives and the GJTMC. The standards and frequency of service are determined by the community, and this service is rendered with the support of the community. A service like this would be unusual in that the labour is done, not by employees of the GJTMC, but by members of the community, and they are rewarded through a public-works program.

Clearly, the main advantage of this approach is that it introduces an economic incentive for high levels of participation in waste collection. It has, however, several problems. First, unionized municipal workers may see it as a threat to their jobs and as an attempt to undercut wage levels. Second, the skip remains the primary collector of refuse, and the same problems occur with the litter as in the site-and-service approach, albeit they are diminished because of the role of the community. Third, as people must collect their own refuse, it may contradict the principle that each and every residential unit in Greater Johannesburg is entitled to a refuse-collection service. Fourth, because the community representatives are responsible for the service within the local community, and not the GJTMC, this can undermine political accountability, as in the contractor approach.

## TRADITIONAL SERVICE

Policymakers see the traditional-service approach as the one most consistent with the Solid Waste Directorate's policies and principles. The traditional-service approach is premised on the notion that the local government must provide storage capacity at each residential site and a door-to-door collection service, with universal frequency and standards determined by the GJTMC. This service is all inclusive and can in theory be adjusted to meet the demands of the community. In practice, the costs may be prohibitive. The tariff is set by the GJTMC or the MSSs, or both, and all service users are bound to pay the charges. This should enable the GJTMC to cross-subsidize payment to disadvantaged communities. When, however, the majority find it difficult to afford these tariffs and budget cutbacks prevent cross-subsidization from other services, this financial approach may prove problematic. Nevertheless, a standardized product delivered to individual residential units according to standardized procedures and routines is far easier for the new political leaders to understand and accept. It is also favoured by officials, who find routinely administered systems easier to deal with than complex community dynamics and development processes.

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Those who favour the traditional-service approach argue that it takes account of development imperatives and community needs. Selected aspects of the service, they argue, can be contracted in terms of community-based collection systems, use unconventional transportation hired from local contractors, deploy local labour in local communities, and have various other community inputs. Retaining the service under the centralized control of the solid-waste departments can, it is argued, ensure political accountability, sound financial management, and equitable levels and standards.

At present, the majority of service users in Greater Johannesburg are serviced a minimum of once a week, with two bin liners per service. This service falls in line with systems in developed countries and is traditionally implemented in local authorities based on the British local-authority service-delivery model. It assumes that the local authority has a sustainable tax base and that budget reprioritization will not undercut the capital and operating requirements of the traditional waste system. These assumptions, however, are already being questioned, thus forcing the Solid Waste Directorate to consider other options.

## COMMUNITY INVOLVEMENT

216 At present, the Keep Johannesburg Beautiful Association, an NGO, has specific mechanisms to involve the public in policy formulation. This is done via village committees, which monitor solid-waste collection. It has been suggested that Cleansing Forums be established in every place where they are practicable, using the village-committee principle, and that the GJTMC support these committees. Areas for urgent ongoing public involvement will need to be identified and prioritized, and existing organizations will need to be included in this process. This method also includes the community in the decision-making process by allowing these committees to comment on matters affecting their environment and to communicate these comments to the relevant committees of the GJTMC. In other words, the communities would have input into policy-making, and the local authority would play the role of watchdog over adherence to the policies by the service provider. This could lead to the greater involvement of small businesses in the waste system.

By the end of 1994, the various solid-waste administrations had reached no consensus about the approach or combination of approaches to most effectively deal with the challenges. As a result, the GJTMC still has no overall change-management strategy to transform the existing racially fragmented system of waste management into a two-tier metropolitan system.

Nevertheless, GJTMC has approved the principle that the cost of services in poorer areas can now be cross-subsidized. This is very significant because, for the first time, the authorities no longer regard services in the poorer areas as self-financing. Virtually all residential units in both formal and informal residential areas are now serviced in one way or another. The debate, therefore, is not about the quantitative extension of the system but about its qualitative restructuring to ensure a uniform approach across the metropolitan area, in line with the overall political imperative to deracialize the city.

It is necessary to evaluate the debate and options reviewed in this section from the point of view of the conception of governance we developed earlier in this chapter. We argued that a governance approach should take into account democratic accountability, capacity to manage (including organizational structure and

culture), relations of trust, and the space for reciprocity. The following subsections describe the general state of the debate and its broader context, rather than specific elements.

### **Accountability**

Democratically elected nonracial local governments at metropolitan and local levels were a necessary condition for taking a local-governance approach in Greater Johannesburg. This achievement, however, was marred by two problems. First, although consensus had been reached on the need for a two-tier metropolitan approach, the failure to reach agreement on the distribution of powers and functions between these two levels has made it impossible to proceed with a detailed change-management strategy in the solid-waste sector. Consequently, the old JCC Solid Waste Directorate, which became that of the GJTMC, has had to drive the process without knowing whether it was to be a metropolitan-level department in the making or whether it and the other preexisting solid-waste departments were about to be restructured into four MSS solid-waste departments, attached to a small solid-waste directorate at the metropolitan level. This kind of strategic uncertainty undermines accountability and effective management. Second, no agreement was found on the need for a creative mechanism to bring small businesses into the waste-service sector, using the contracting approach, or to bring communities into self-help schemes, using the community-based approach. The persistence of a conventional conception of governmental accountability is the underlying reason for the continued adherence to this limited approach to service delivery.

### **Capacity**

Under apartheid, Black Local Authorities were unable to generate the resource base needed to build up the managerial, organizational, and technical capacities to plan and develop an adequate level of service and to maintain and operate the infrastructure at a high standard. The establishment of the two-tier metropolitan system in Greater Johannesburg is clearly a necessary condition for resolving this problem. The centrality of the former JCC Solid Waste Directorate in the equation suggests that it is an institutional resource with considerable potential to meet the needs of the

metropolitan area. However, two unresolved issues might prevent its being used. First, although the JCC Solid Waste Directorate and the preexisting solid-waste departments have the technical competence, staffing levels, and infrastructure to meet needs both during and after the change to a two-tier government, they may be unable to switch from a traditional, Fordist, routinized approach to mass service delivery, using standardized procedures, to a development approach requiring direct relationships with the clients via unconventional contracting methods and postmodern management procedures. It is going to take time for a development culture to take root and develop. Bringing development workers in who previously worked for NGOs may assist in making this happen. Second, as budgetary constraints become a reality, the future solid-waste departments at the municipal and submunicipal levels may well be forced to focus resources on the maintenance and operation of the existing infrastructure, rather than contemplate the extension of their services to the informal settlements where service payments are both inadequate and erratic.

### **Reciprocity**

The sustained involvement of organized civil society and private-sector stakeholders in local-level negotiation processes between 1989 and 1994 helped to create a political culture and operating environment premised on the stakeholder approach to policy formation and implementation. To this extent, the space for reciprocal stakeholder participation exists. Senior officials of the solid-waste departments have attended numerous community meetings to discuss service-delivery problems, and dozens of forums have been established to discuss alternative service approaches with small-business operators who believe that the new dispensation will automatically favour contracting out and even full-scale privatization. Three factors, however, may tend to narrow the space so far achieved. First, the absorption of many local leaders into local government and the funding cutbacks that many NGOs are currently experiencing have severely weakened CBOs and nonprofit organizations. Second, the bureaucratic culture of municipal departments that evolved from apartheid tends to discourage reciprocity. It is simply much easier to make assumptions about service needs than to have to spend a lot of time communicating and negotiating. This culture removes incentives for

participation. Third, a number of large-scale multinational and national companies with extensive experience in privatized public-service delivery are beginning to muscle in on the game. They have the resources to hire effective lobbyists, and their arguments are given serious attention. Major companies are already involved in solid-waste management, and they have an interest in increasing their involvement. If the GJTMC and its MSSs promote this, then the primary beneficiaries of reciprocity will be these companies, rather than the people in the communities and the small contractors, whereas the government has the greatest need to secure the participation, trust, and cooperation of precisely these people.

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### Trust

It is probably fair to say that low levels of trust are the greatest challenge facing all public-service managers, particularly solid-waste managers. Given the legacy of apartheid, it is unsurprising that relationships between officials and local communities are still fraught with tension. Officials want communities to pay for services, but people in the communities do not believe this will lead the officials to upgrade existing services or develop and extend them to unserved areas. The officials may overcome these people's mistrust with promises in the short term. But in the long run, promises can lead to disillusionment, if raised expectations remain unmet. This is the cycle of postindependence Africa, and it may continue in South Africa if vote catching and budget constraints combine to trigger expectations and retard delivery.

In summary, although the negotiated transition to democratic, nonracial local government in Greater Johannesburg was a remarkable achievement, municipal authorities still have a long way to go to achieve a consolidated system of democratic local governance.

## POLICY OPTIONS AND RECOMMENDATIONS

This section sets a recommended policy perspective for changes in Greater Johannesburg's system for solid-waste management. The GJTMC needs to consider four institutional options in implementing some combination of waste-management methods:

- *Metropolitanization of the traditional method* — This would entail the expansion of the existing administration

at metropolitan and submetropolitan levels within the traditional institutional framework. The focus here would be on using the existing technology, an expanding pool of capital goods, and an increased labour force. Officials would develop the policy, and politicians would approve it. It would be implemented through routine procedures, timetables, and reporting. This would require a hierarchically structured administrative arrangement, with a cascading level of command. Given that community involvement in delivery of service would be limited in this option, community participation in the governance of the waste system would be restricted to policy-consultation forums or limited outsourcing.

- *Community contracting* — This would involve contracting community-based profit and nonprofit businesses to take responsibility for certain aspects of the waste stream, such as collection from residential sites and delivery to disposal sites; collection of certain wastes, such as organic materials; or even processing waste for certain purposes. This option would succeed only with an extensive program to build enough local management capacity to handle the contracting procedures. It would also require highly developed computerized contract-support systems and project monitoring to ensure sustainability. Policymakers would find it unacceptable to allow the quality of the service to depend on an unstable organizational and management capacity.
- *Labour-based collection* — This would be similar to the metropolitanization of the traditional method, but it would mean massively expanding the labour force at the delivery end for the purposes of job creation. Possibly using funds from the national public-works program, this approach would involve employing people nonpermanently or semi-formally (for example, paying them per bag of refuse or at daily rates). If this option is preferred, for reasons related to employment creation (that is, for reasons exogenous to waste management per se), then it may lower the cost of the expansion of capital goods. In other words, this option would reinforce community-based involvement in delivery but subordinate it to the management processes of the

solid-waste departments. It would thus favour the interests of unemployed people, rather than profit or nonprofit entrepreneurs.

- *Privatization-commercialization* — This would involve either the complete sale of the waste service to a private-sector company or the establishment of a nonprofit utility owned by the local authority. The aim would be to secure community involvement via share ownership, linked to subcontracting. If large-scale borrowing from private financial institutions is going to be required to expand the service, it may well be necessary to consider this option, given the demands of these institutions to link lending to access to attachable assets.

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The current trend in policy thinking is to view it as easier to develop the traditional system and level of service and extend it to the disadvantaged areas. The methods used in rendering the service, it is argued, must be labour intensive to promote job creation. Whether this is sustainable with a stagnant tax base and other service demands taking precedence for budget allocations is a moot point. The hard policy choices will only become apparent when extensions of the service translate into the costs of capital equipment, labour, and landfill management. Extending the system to service new areas is possible; the real tension in the system is only going to be felt farther down the line.

The recommended policy option should comprise the following elements:

- *An integrated metropolitan solid-waste system* — This would make the GJTMC's Solid Waste Department responsible for overall strategic management, bulk services (landfills, recycling, etc.), and development facilitation and innovation for unserved areas, and the solid-waste departments of the MSSs would be directly responsible for the local services.
- *A combination of traditional service and labour-based collection* — This would mean having the traditional-service approach but with labour-based collection in poor areas and contracting out as much as possible.



- *The implementation of a change-management strategy* — This would be aimed in particular at the transformation of existing organizational cultures and management approaches, with a view to building a development ethos and postmodern management practices, such as working in teams and rewarding performance, rather than adherence to the rules; accountability in terms of a mission; information-based project management; and close linkages between monitoring and strategic management.
- *A review of existing approaches, technologies, and methods* — This review would take as its model a sustainable-resource approach, which aims to transform the existing linear conception of the waste stream, viewing waste as unproductive, to a circular conception of the waste stream, viewing waste as a productive input into new waste-based industries, including everything from recycling to composting.

This latter policy perspective rests on the assumption that the solid-waste service would be improved through having the active participation of citizens, CBOs, NGOs, and local businesses in policy formation and delivery. When it comes to statements about participation, however, this is often merely rhetoric. The difficulty is figuring out what participation means in practice. As already indicated, political leaders, community groups, and officials understand participation in diverse ways. Whereas the newly elected political leaders consider themselves the only authentic leaders of the community (supported in this self-concept to some measure by high polls in the founding elections), support is less than enthusiastic for formalized participatory processes. Despite this, we make the following recommendations to establish a framework for structured participation at different levels:

- Establish a Metropolitan Solid Waste Forum for policy formation and review, comprising organized civil-society and private-sector interests, the solid-waste departments from the metropolitan and local levels, and elected political representatives;
- Design a contract-management system to enhance outsourcing without undermining accountability;
- Design and initiate a community-based education and awareness-raising campaign, based on a low-cost

community-organizing approach, rather than a high-cost private-sector marketing approach, to increase the general understanding and appreciation of the importance of waste management in the communities; and

- Promotion of a network of capacity-building organizations to provide training programs for local-government officials, NGOs, CBOs, and local businesses involved in labour-based or community contracting programs.

Finally, a review should be conducted of the management of the entire solid-waste stream from the perspective of sustainable resource use. Now that South Africa is signing international agreements as a responsible member of the United Nations, it is simply a matter of time before national government starts to encourage local governments to conduct their activities according to Agenda 21 guidelines. There is no reason why this should not start in Greater Johannesburg. This can be done by adopting the following approach:

- Commission a study to review international experience and draw out lessons applicable to Greater Johannesburg;
- Via the Metropolitan Solid Waste Forum mentioned above, collectively formulate a policy perspective for adoption by the GJTMC and the MSSs to guide medium- to long-term institutional reorganization and a resource-reallocation program for sustainable resource use; and
- Establish an interdepartmental unit within the GJTMC to link a sustainable approach to resource use in solid-waste management to similar initiatives in other departments, such as the use of sludge from the water-treatment works for composting or a requirement that new development proposals contain environmental-impact assessments.

## **CONCLUSIONS**

This chapter has provided a framework in which to pose questions about the ways municipal-service policy will be managed in future. The discussion of governance suggested that severe resource constraints have given rise to a shift from state-centric notions of

welfarist service provision to one of shared responsibility, according to which the responsibility for the governance of service provision is somehow shared between state agencies, the private sector, and civil society. This suggests four interpretations of what governance means in practice:

1. Cutting down state involvement in service provision by privatizing services and transforming administrations into efficient and competent managers of a service-oriented regulatory environment;
2. Increasing political democratization to make the state more accountable and responsive to a majority, rather than to an elite;
3. Developing institutional arrangements whereby state agencies, the private sector, and community-based profit and nonprofit businesses share responsibility for the governance of service; and
4. Removing the state from service provision by increasing privatization.

At the moment, the local-government transition in South Africa is essentially premised on the second conception of governance, that is, democratization and deracialization of local governance are intended to establish a framework for extending municipal services to everyone. This assumption was tested through an analysis of the waste-management system. Although existing policy bears this contention out, financial and economic pressures may force local governments to rethink the traditional methods of service delivery and consider options that fit more into the first and third of these conceptions of governance. This would certainly reinforce the multistakeholder, participatory approach to local-government transition that has already given rise to the new local governments.

In short, this chapter has provided a framework for thinking about governance in new ways. The South African local-government transition has provided a unique opportunity for testing some approaches to governance. Waste management, in particular, is an area in which tensions are most clearly revealed between the traditional approach to extended service provision, via expanded administrative delivery, and partnership-based approaches that bring other economic players into the management of the waste

stream. It is still unclear how these tensions are to be resolved and by which pressures and trends they are influenced. It is too early to precisely judge their future dynamics, but not too early to start rethinking these issues in the light of the shift in international conceptions of governance.