

# **Waste management in South Africa: Institutional and legal discords a call for Constitutional and related laws' reform**

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## **Abstract**

Great efforts have been made towards environmental and/ or waste management law reform and harmonisation in South Africa. However, much discord still remains. Such discord emerges from the Constitution and other environmental laws that fail to separate distinctively the powers, roles and responsibilities of the three spheres of government that include the national, provincial and local authorities in terms of waste management. The confusion also stems from the failure of key environmental and/or waste legislation and institutions to 'talk' to each other both vertically and horizontally. This paper restricts itself to addressing issues surrounding general and health care waste management, particularly at the national and provincial levels as it relates to the critical concerns raised above.

## **1. Introduction**

This paper originates from a research consultancy that focused on an 'Audit and Analysis of Relevant Legislation, Powers and Functions thereof that affect Municipal Urban Environmental Management in South Africa' as well as additional research that followed thereafter. The consultancy research was conducted under the auspices of the DANIDA-funded Urban Environmental Management (UEM) Programme and took place between February and May 2007. The UEM Programme focuses on four key thematic areas namely: Integrated Urban Environmental Planning; Waste Management; Air Quality Management; and Energy Management. The UEM Programme involves five municipalities of Cape Town, eThekweni, Ekurhuleni, Johannesburg and Sedibeng.

Currently there is no binding national legislation dealing specifically with the management of health care waste in South Africa, although provincial legislation for the

Gauteng and Western Cape Provinces exist. On the other hand, the 2006 Waste Management Bill (WMB), in its final stages through Parliament proposes more institutions and plans, adding to the confusion. Among others, the following are some of the key policies and legislation with a bearing on waste management powers, functions and responsibilities: the Constitution, Environmental Conservation Act (as amended), White Paper on Integrated Pollution and Waste Management, National Air Quality Act, National Health Act, National Environmental Management Act, Waste Management Bill, Municipal Systems Act, Proposed Health Care Waste Policy as well as various provincial acts and municipal by-laws. Given the fact that it is the Constitution that brings into the fore duplicative and unclear functions, powers and roles for the three spheres of government, the paper highlights that it is time stakeholders re-think about reforming the Constitution and other related environmental and/ or waste management laws in order to come up with a harmonised regime.

## **2. The administrative institutions**

The Constitution (RSA 1996) establishes a three-tier governance system for South Africa, which includes the national, provincial and local governments. Both the national and provincial governments are run along the lines of portfolios and portfolio committees. The President, Deputy President, various cabinet ministers and deputies, National Assembly of Parliamentarians and several parliamentary portfolio committees head the national government. The provincial governments are led by premiers and various Members of the Executive Council for different portfolios. The mayor and deputies as well as town clerks and ward councillors head the local governments falling within the category 'urban' (DPLD 1998). These include,

according to South African settlement hierarchy, the urban core, urban fringe and small towns (all of which constitute municipalities) after which there are dense rural, villages, agri-villages and dispersed settlements (RSA 2000) that fall under councils and traditional leadership.

In terms of environmental and waste management, the full hierarchy involves, at the national level, the Parliamentary Portfolio Committee for the Environment, the Minister of Environmental Affairs and Tourism plus the Deputy, Committee of Ministers and Members of the Executive Councils (MINMEC) for Environment and Nature Conservation, the Director General of the Department of Environmental Affairs and Tourism (DEAT) and various sub-directorates under DEAT, including Waste Management, Inspectorate as well as Education and Awareness (DEAT 1999a;RSA 2004b). At provincial level the Members of the Executive Councils for Environment and Nature Conservation head environmental affairs (including waste management) with input from the Provincial Portfolio Committees for the Environment. At the local government level (DPLD 1998) environmental and waste management responsibilities are shared between departments of Environmental Health, City Engineers (including Town Planning), Utilities and Parks and Recreation. These departments are assisted at the council level by Portfolio Committees for the Environment, and at the grassroots level by the ward councillors and ward development committees.

As per Schedule 4(a) of the Constitution, the national and provincial governments are given powers to make and execute laws about, among other things, the environment, health services, trade and tourism, nature conservation and pollution control (DEAT 1999a). Furthermore, Schedules 4(b) and 5(b) specify aspects with which the local authorities have concurrent responsibilities. In terms of waste management, such responsibilities include cleansing; refuse removal, landfills and dumps, and solid waste disposal. However, municipalities do not have mandate over hazardous wastes (including health care waste) yet these are generated within their jurisdictions, with

national and provincial authorities taking long to respond if disaster strikes. Under Section 195 (1) public administration is challenged to be accountable, transparent, respond to people's needs and encourage participation in government.

Dealing with aspects pertaining to concurrent responsibilities is a complex matter. This places institutions and officers in positions where two centres of power could hinder service delivery concerning general and hazardous (including health care) wastes. Apart from having two centres of power, concurrent responsibilities might lead to overlaps and/or gaps in addressing waste management at the levels specified.

### **2.1 Some of the contradictions**

Environmental and/or waste management responsibilities are by their nature cross-cutting. This implies that there is bound to be institutional friction between and among various institutions at all three levels of government. Furthermore, some of the noticeable (and at times contested) discords will be highlighted here.

The Ministry of Environmental Affairs and Tourism, represented at the implementation level by DEAT, by its nature seems to have the greater mandate in terms of environmental and/or waste management in South Africa. However, one is quick to note that there are other equally important and 'independent' entities such as housing, minerals and energy, industry and trade, agriculture, health, water affairs and forestry as well as the presidency that influence environmental decision making.

To attend to the ever-challenging environmental and/ or waste management tasks, DEAT has embarked on a transformation agenda. Transformation at DEAT in the past one and a half decades is reflected in the re-structuring of the department into one that could be described as a 'highly-specialised' entity. This transformation is not so visible in terms of other national, provincial and local government level departments. DEAT now comprises four branches and the branch that relates to the subject under deliberation is the Environmental Quality and Protection

Branch (Table 1). It deals with issues including pollution and waste.

**Table 1: Environmental Quality & Protection Branch**

Branch/Cluster	Chief Directorates	Directorates
Environmental Quality and Protection  (Headed by a Deputy Director-General)	-	1. Administration
	Pollution and Waste Management	1. Pollution & Waste Management Support 2. Authorisation & Waste Disposal Management 3. Waste Stream Management 4. Waste Policy & Information Management
	Regulatory Services	1. Authorisation 2. Compliance Monitoring
	Environmental Impact Management	1. Environmental Impact Processing 2. Environmental Impact Management 3. Environmental Impact Assessment
	Air Quality Management & Climate Change	1. Atmospheric Quality Information 2. Atmospheric Policy, Regulation & Planning 3. Air Quality Management

Source: Compiled from [www.deat.gov.za](http://www.deat.gov.za) (visited 19-08-08)

Among others, the role of the Environmental Quality and Protection Branch is to protect the environment in the interest of the health and wellbeing of the people of South Africa, with functions to: promote the prevention of air pollution; develop and facilitate chemicals and hazardous waste management; and develop and facilitate effective waste management and ensure integrated pollution prevention and control.

Although there is provision for cooperative governance, the institutional arrangement outlined in Table 1 is one that has been put in place probably to iron out differences with the Department of Health. When the Chief Directorate Pollution and Waste Management was restructured in 2004 it had, until 2007, two Directorates with mandates to manage chemicals and hazardous waste. These mandates are also shared with the ministries and relevant national and provincial departments of health and agriculture. The same setup also exists at the local government level. There still remain contested mandates regarding air quality management.

In addition, the National Health Care Waste Management Policy has been driven from DEAT under the National Waste Management Strategy (DEAT 2004). However, given the mandate of the national Department of Health (DoH), one would expect that it becomes the lead agent in this regard. Although there might be silent points on the arrangement as the two departments are 'working' together, there could be conflict in terms of inter-departmental mandates. This could be one of the explanations why it has taken this long to come up with the National Health Care Waste Management Policy.

### 3. The legislative discords

One must be quick to acknowledge that as the lead environment agency, DEAT has made remarkable progress in harmonising South Africa's environmental and/ or waste management legislation and policy, both at the international and national scales. However, key challenges still remain as both existing and proposed legislation brings up points of discord.

All main environmental and/or waste management legislation makes reference to the Constitution of South Africa (Act No. 108 of 1996). The Constitution enshrines both the Bill of Rights and the legal basis for distributing powers to the three spheres of government. Section 24 (RSA 1996: 10-11) stipulates that:

Everyone has the right (a) to an environment that is not harmful to their health or wellbeing; and (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that (i) prevent pollution and ecological degradation, (ii) promote conservation, and (iii) secure ecological sustainable development and the use of natural resources while promoting justifiable economic and social development.

Already, issues relating to health, pollution and waste are implicitly inclined towards the institutions that deal with the environment rather than health.

Part VI of the Environment Conservation Act (ECA) (RSA 1989) makes provision for the formulation of waste management regulations. Under Sections 24 and 24A the

Minister of Environmental Affairs and Tourism is given the jurisdiction to make regulations with regard to waste management and littering. Section 24(d) stipulates that regulations may be issued so as to reduce waste. Chapter eight of the National Environmental Management Act (NEMA) No. 107 of 1998 deals with 'Environmental Management Co-operation Agreements' (RSA 1998a). Section 35 allows the Minister, MECs and local authorities to conclude environmental management agreements with persons or communities for the purposes of promoting compliance with the principles laid down in NEMA. The provision of such co-operation agreements may be further solidified by regulations that stipulate targets and periods of monitoring and review as agreed by the parties, of which failure to comply becomes an offence.

Regulations or Agreements? This is another area requiring further investigation, as in reality these could be the same and might call for the harmonisation of the two acts. As a matter of fact, ECA could be integrated into NEMA in order to come up with a single streamlined framework law for environmental management in South Africa. After all, ECA was promulgated when the environment was conceived in its narrow sense of conservation.

Before its amendment in 2004, the ECA gave authority for waste management facility permitting to the Ministry of Water Affairs and Forestry (RSA 2004c). This authority now rests with the Ministry of Environmental Affairs and Tourism. In addition, NEMA talks of a clean and healthy environment (RSA 1998a), yet these aspects are not clearly spelt out as joint responsibility of DEAT and DoH. Such ambiguity leaves the respective departments at both the provincial and municipality level conflicted as to which ministry they can account for with regard to issues under discussion. Other contradictory legislation includes the EIA Regulations of 2006 versus the Mineral and Petroleum Resources Development Act (Act No. 28 of 2000), which overrides the administration of EIA by DEAT.

### 3.1 Definitions, powers and functions

One of the key hurdles to be dealt with concerns what really constitutes waste in a South African context. The following definitions exist in various policies and legislation that draw from the Constitution.

The Environment Conservation Act 73 of 1989 (RSA 1989) describes waste as:

any substance that could be gaseous, liquid or solid or any mixture thereof that may be designated by the Minister of Environmental Affairs and Tourism as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity.

The National Waste Management Strategy defines waste (DEAT 1999b: 10) as:

An undesirable or superfluous by-product, emission or residue of any process or activity that has been discarded, accumulated or been stored for the purpose of discarding or processing. Waste products may be gaseous, liquid or solid or any combination thereof and may originate from domestic, commercial or industrial activities, and include sewage sludge, radioactive waste, building rubble, as well as mining, metallurgical and power generation.

From the National Water Act (NO. 36 of 1998) waste includes (RSA 1998b):

any solid material or material that is suspended, dissolved or transported in water (including sediment) and which is spilled or deposited on land or into a water resource in such volume, composition or manner as to cause, or to be reasonably likely to cause the water resource to be polluted.

The White Paper on Integrated Waste and Pollution Management identifies waste as:

an undesirable or superfluous by-product, emission, or residue of any process or activity which has been discarded, accumulated or been stored for the purpose of discarding or processing. It may be gaseous, liquid or solid or any combination thereof and may originate from a residential, commercial or industrial area. This definition includes industrial waste water, sewage, radioactive substances, mining, metallurgical and power generation waste (DEAT 2000).

In the National Health Act (No. 61 of 2003) no definition is provided but reference is made to the definition of 'municipal health services' that include: water quality

monitoring; food control; waste management; health surveillance of premises; surveillance and prevention of communicable diseases, excluding immunisations; vector control; environmental pollution control; disposal of the dead; and chemical safety, but excluding port health, malaria control and control of hazardous substances (RSA 2003).

In the City of Johannesburg Waste Management By-Laws 2004 waste is described as:

any undesirable or superfluous matter, material, by-product or residue of any process or activity that has been discarded, accumulated or stored for the purpose of treatment, discarding or recycling and may be liquid or solid, may include products that contain a gaseous component and may originate from domestic, commercial, medical or industrial activities, but does not include any gas or gaseous product which may be regulated by national or Gauteng provincial legislation

Western Cape Health Care Waste Management Bill of 2006 defines general waste as (Western Cape Provincial Government 2006):

a generic term for waste that, because of its composition and characteristics, does not pose a significant risk to public health or the environment if managed properly. This waste type typically consists of plastics, paper, food and liquids not considered to be infectious or contaminated with hazardous chemicals or radioactivity

The Waste Management Bill (RSA 2007) describes waste to include

any substance, whether solid, liquid or gaseous, which is: (i) discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration to the environment, (ii) a surplus substance or which is discarded, rejected, unwanted or abandoned, (iii) reused, recycled, reprocessed, recovered or purified by a separate operation from that which produced the substance or which may be or is intended to be re-used, recycled, reprocessed, recovered or purified, or (iv) identified as waste by prescribed regulation.

Whereas it is interesting to note the various definitions promulgated by various legislation drawing from the Constitution, it is also of great significance to note that other key framework legislation dealing with waste

like the Air Quality Act (Act No. 39 of 2004) does not even make reference to waste in its definitions (RSA 2004a).

There is currently no national policy or legislation governing health care waste management. However, two provincial governments, Gauteng and the Western Cape, have put in place and are currently developing health care legislation respectively (Gauteng Provincial Government 2004; Western Cape Provincial Government 2006).

The Gauteng Province already has regulations governing health care waste and the Western Cape Province has a Bill in place. A comparison of definitions regarding health care waste shows that differences already exist (table 2).

**Table 2: Gauteng & Western Cape Health Care Laws**

Common Terms	Different Terms
Chemical waste	<i>Gauteng Health Care Waste Management Regulations 2004</i>
Generator	Animal, authorisation, challenge load, competent person, controlled combustion treatment, disinfect, domestic generator, EIA authorisation, final disposal, health care general waste, healthcare risk waste container, health care risk inspector, health waste officer, home based care, infectious agent, infectious waste, laboratory waste, leak resistant receptacle, major generator, Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (DWAF, 1998), non-hazardous waste, performance testing, permit, puncture routine testing programme, sharps receptacle, sterilise, storage, surrogate health care risk waste, temporary
Genotoxic waste	authorisation, the Act (Environmental Conservation Act of 1989), treatment, treatment facility, Waste Information system (WIS) number, and zoonotic disease.
Hazardous waste	
Health care waste	
Occupational Health and Safety Act (1993)	
Pathological waste	
Person	
Pharmaceutical waste	<i>Western Cape Health Care Waste Management Bill 2006</i>
Sharps waste	Audit, Constitution (1996), disposal, disposal site, disposer, dump, health care waste management, household generator, general waste, municipality, pressurised container waste, organ of state, other waste, radioactive waste, radionuclide, spill, secure area, transporter, treater and waste.
Transfer facility	

Hence DEAT and the DoH need to take note of these and harmonise them as they finalise a national framework. This will assist other provincial and local authorities that are in the process of developing similar legislation. The DoH in partnership with the

DEAT has identified gaps in: a) institutional transformation and b) training needs for environmental health functions (DEAT & DoH, 2006). In terms of Section 32 (2&3) of the Health Act (2003), Environmental Health Services have been devolved to District and Metropolitan Municipalities. Such a move raises bigger questions in terms of the need to assess and analyse current and anticipated Environmental Health Practitioners' (EHPs) functions at local government levels with the view to: determine human resource requirements; training needs; as well as clarifying governance roles, responsibilities, mandates, organisational structuring and financing. The traditional and anticipated responsibilities of EHPs are summarised in table 3.

**Table 3: EHPs old and new responsibilities**

Old (Traditional Roles)	New and Complex Expanded Roles
<ul style="list-style-type: none"> <li>• Food inspection</li> <li>• Control of rodents and pests</li> <li>• Public education</li> </ul>	<ul style="list-style-type: none"> <li>• Soil management</li> <li>• Waste management</li> <li>• Air quality management</li> <li>• Water quality management</li> <li>• Environmental Assessments (incorporating EIAs)</li> <li>• Chemical safety</li> </ul>
Roles remaining a responsibility of the provinces <ul style="list-style-type: none"> <li>• Port Health</li> <li>• Malaria control</li> <li>• Hazardous substances</li> </ul>	

The devolution of environmental management functions such as air quality and waste management to the local level, and the need to appoint Environmental Management Inspectors (EMIs) by DEAT in order to enable enforcement of associated environmental laws and regulations at this level, overlaps with environmental health functions as defined by the Health Act (2003). Section 32 of the Health Act (Act 61 of 2003) requires provincial Health MECs to assign environmental health functions to district and metropolitan municipalities. The definition of these functions in the Health Act includes environmental pollution control, waste management and water quality monitoring. The Municipal Systems Act, 2000 (Act 32 of 2000), defines Integrated

Development Planning (IDP) as a core function of a municipality. This Act also establishes a framework for performance-management systems, effective use of resources and organisational change at local level. The restructuring and repositioning of Municipal Health Services (Environmental Health) to reside at District or Metropolitan level is guided by this framework. IDPs must serve to integrate and coordinate other plans in accordance with available resources and capacity.

Municipalities are further challenged by an increasing number of national sector legislative requirements for other local plans to link with the IDP, including:

- District Health Plans (whose implementation must be funded both by province and municipalities (Health Act 31(5)b));
- Water Services Development Plans (National Water Act No. 36 of 1998);
- Integrated Waste Management Plans (Waste Management Bill 2007); and
- Air Quality Management Plans (National Air Quality Management Act No. 39 of 2004).
- Marine and Coastal Management Plans (National Marine and Coastal Management Bill 2007)

As a schedule B function in terms of the Constitution, municipalities are expected to continue to fund and provide the expanded definition of municipal health services (RSA 1996). The assignment and delegation of additional environmental health and management functions has led to recognition in the Health Act of the responsibility of the Provincial sphere to contribute towards meeting the additional financial burden. Many district municipalities are having difficulty in restructuring and implementing the new district-level arrangements envisaged by the Health Act for the financing and management of environmental health functions.

Section 34 of the Health Act makes provision for transitional arrangements (RSA 2003) in which local municipalities are required to continue providing the services they provided before the Act, and until such time as a Service Level Agreement (SLA) is in place. In a number of districts the EHS devolution process has not yet been finalised. District Municipalities cannot raise income from property rates and do not

receive equitable share finance for their given environmental health function. It follows then that the Provincial Department of Health is required, through an SLA to assess and make available the resources needed to perform the required environmental health functions. Local municipalities who previously provided environmental health services are expected to continue to provide the finances for these posts which are required to be transferred to the District Level. Additional posts to address newly assigned and delegated functions need to be funded in terms of Section 32 of the Health Act through an SLA which a) describes the services; b) determines the resources that must be made available by the province and those by the municipality and c) sets performance and monitoring standards.

The National Air Quality Management Act of 2004 provides for the development of a national framework which, inter alia, requires 'municipalities' to monitor air quality and sources of emissions (RSA 2004a). Provincial Governments are also required to monitor ambient air quality, and also the performance of municipalities in implementing the Act. Section 14(3) of the Act requires each municipality to designate an air quality officer responsible for coordinating matters pertaining to municipal air quality management. The Act requires each municipality to produce an Air Quality Management Plan as part of its Integrated Development Plan. The DEAT, through the National Environmental Management Amendment Act (2003) is responsible for the appointment of Environmental Management Inspectors (EMIs) who may be working within any sphere of government. While governed by two different Acts and departments, the powers and functions of EHPs and EMIs are similar in many respects. A summary of titles that are established by selected acts is presented in table 4.

The profession and professionals for environmental health suffer 'second class' recognition from both societal and the medical discipline. This has resulted in the disempowerment of practitioners, a factor that hinders service delivery in this area. Some provinces and municipalities do not

even have fully fledged Environmental Health Departments whilst the profession also suffers from a lack of identity: whether it is in the medical profession (often dominated by doctors) or in the environment profession (often dominated by hard-core conservationists). Hence the profession has been lying on the borderline, yet it offers so much in terms of waste management.

**Table 4: Areas of concern for officers**

Year	Legislation	Officers established
2003	National Environmental Management Amendment Act 2003	Makes provisions for the appointment of Environmental Management Inspectors (EMIs)
2004	National Air Quality Act	Section 14(3) of the Act requires each municipality to designate an air quality officer (AQOs)
2004	Gauteng Health Care Waste Management Regulations	Section 6(4) proclaims a "Health Care Waste Officer" and Section 41(1) establishes a "Health Care Risk Waste Inspector".
2007	Waste Management Bill	Section 18 and 63 make provisions for the appointment of Waste Management Officers (WMOs) and Waste Control Officers (WCOs) respectively.
<p><i>Aspects of synergies, duplication and potential conflict</i></p> <ul style="list-style-type: none"> <li>Section 83 of the National Health Act empowers environmental health officers (EHOs) to enter and search premises with and, in certain exceptional circumstances, without warrants</li> <li>The National Environmental Management Amendment Act, (2003) provides for the appointment of environmental management inspectors (EMIs) who have wide-ranging powers to enforce compliance with environmental laws. Like EHPs they may carry out routine inspections as well as focused searches, and may issue compliance notices to companies or individuals not complying with the law or their permit conditions.</li> <li>A waste management officer may require the holder of a waste management licence to designate a waste management control officer, having regard to the size and nature of the waste management activity for which the licence was granted. A waste management control officer must: work towards the development and introduction of cleaner production technologies and practices; identify and submit potential measures in respect of waste minimisation, including the recovery, re-use and recycling of waste, to the waste management licence holder and the licensing authority; take all reasonable steps to ensure compliance by the holder of the waste management licence with the licence conditions and requirements and the provisions of this Bill; and promptly report any non-compliance with any licence conditions or requirements or provisions of this Bill to the licensing authority through the most effective means reasonably available.</li> </ul>		

Both the National Health Act and the Air Quality Act empower Environmental Health Practitioners (EHPs) in that they must administer some of the responsibilities outlined in these acts. However, there is potential for duplication of powers and functions between EHPs and Environmental

Management Inspectors (EMIs) established under the National Environment Amendment Act of 2003 administered by the Department of Environmental Affairs and Tourism (DEAT).

Contradictions also exist between the Atmospheric Pollution Prevention Act of 1965 (APPA) and the Air Quality Act of 2004 (AQA). The APPA designates DEAT as the permitting authority (RSA 1965) whilst the AQA designates municipalities as permitting authorities (RSA 2004a). In addition, Section 14 (3) of AQA stipulates that each municipality must designate an Air Quality Officer (AQO) from its administration to be responsible for co-ordinating matters pertaining to air quality management in the municipality and in terms of Section 6 (1) of the APPA the Minister of Environmental Affairs and Tourism appoints an officer to be designated as the chief air pollution control officer (CAPCO).

DEAT is already working on the harmonisation of the APPA and the AQA and the outcome from this process has to be factored in. The three spheres of government must continue working together to identify and eliminate areas of conflict or duplications in various policies and legislation. In the meantime, municipalities can apply to DEAT requesting authorisation powers in order to facilitate the implementation of AQA.

The Minister of Environmental Affairs and Tourism proposed regulations outlining the National Ambient Air Standards in June 2006. These standards define the ambient air quality targets for all air quality management interventions (DEAT 2006). In response to the proposed National Ambient Air Standards, one NGO, GroundWork, produced detailed comments comparing these standards to the international context. The conclusions were that the South African Standards differed significantly in many respects to already operational national standards and other international norms.

The sharp contrast is that while the values are given in the units milligram per cubic metre ( $\text{mg}/\text{m}^3$ ) or one gram per cube metre ( $1\text{g}/\text{m}^3$ ) while the units parts per billion (ppb) and parts per million (ppm) are used

elsewhere, for example, in the results from the monitoring stations in Durban. In addition, other hazardous chemicals, among them mercury, particulate matter of the size  $2.5\mu\text{g}$ , and benzene. For some substances the proposed permissible amounts are insufficiently protective of health, especially if tallied against the World Health Organisation (WHO) Air Quality Guidelines Global Update 2005 (WHO 2005). The substances in question include carbon monoxide, sulphur dioxide, particulate matter of size  $10\mu\text{g}$  (PM10), ozone and other toxic chemicals. This research also revealed lack of adequate air quality monitoring stations.

#### **4 Suggestions and way forward**

The Constitution provides different and concurrent powers and functions for the three spheres of government. There is duplication and fragmentation of powers and functions between National Departments, Provincial Departments and Departments at Local Government level, and between the three spheres of Government (thus the lateral and vertical relationship) which is not only costly, but that makes good environmental and/or waste governance very difficult and unmanageable.

Although this might take longer than expected, the powers and functions of the three spheres of government as they appear in the Constitution need revisiting. One shorter route is to follow the precedents set by the National Health Act and the Air Quality Act. The legislation devolves certain environmental health and air quality monitoring responsibility to municipal level. Once consensus patterns emerge over time with regard to devolutions of other environmental and/ or waste management powers and functions, the Constitutional amendments could then be made. It is also critical to distinguish between the type of municipalities that have the capacity to handle the responsibilities. If all municipalities were to be given statutory powers to look after the environment, including waste management, strong capacity building programmes have to be instituted to support the devolution.



Environmental and/ or waste management powers and functions, as well as the roles and responsibilities of departments at National, Provincial and Local Government levels should be carefully and clearly defined. One option is to make use of a grid and approved legislative and inter-governmental relationship framework so that key stakeholders (the general public, organised business, organised labour and organised government) know who is accountable and responsible for what at each sphere of management, both horizontally and vertically. Such streamlining of powers and responsibilities also make it possible to hold departments accountable and responsible in a Court of Law. Insights can be drawn from experiences around the roles and responsibilities delineated for the three spheres of government to deal with municipal infrastructure delivery. It is critical to identify key national, provincial and municipal level stakeholders that can facilitate a process of delineating boundaries of powers and functions.

Environmental Health Departments at all spheres of government need to be elevated to the same level with other priority departments. In addition, a programme to raise the esteem of EHPs and their full recognition by society and peers by upgrading their skills through facilitating short in-house capacity building as well as fully accredited bridging courses so as to have them spearhead environmental management in the said areas must be instituted. Both the Department of Health (responsible for EHPs) and DEAT have commissioned a study to clarify powers and functions of EHPs and EMIs. Recommendations from this study could provide a way forward. One option could be to find out the compatibility of recruiting EHPs into the ongoing EMI accreditation learnership being administered by DEAT and accredit them as specialist EMIs focusing on environmental health issues.

It is also necessary that environmental and/or waste management policies and legislation are harmonised by cross referencing, particularly those of a lower order nature (provincial and municipal levels) 'talking' to national framework policies and legislation. Reference must be

made to key acts, for example when defining concepts such as 'environment', 'sustainable development', 'waste', 'health care waste', and many more when provinces and municipalities come up with their legislation and by-laws. Hence there is need to commission research studies to harmonise policies and legislative frameworks.

To remove duplication and possible grey areas in terms of waste management, the framework Waste Management Bill of 2007 or further regulations under the Act (once promulgated) needs to sharpen the division of roles between the three spheres of government with regard to the nature of integrated waste management plans (IWMPs) that each of the spheres must prepare. The revised bill currently specifies that the IWMPs must be integrated into most appropriate plans such as being part of the IDPs that are already in existence. Significant assistance will be required for local and district municipalities falling under categories 'B' and 'C'.

Job titles at various scales or even the same scales differ, for example, there are and will be Environmental Management Inspectors, Waste Management Officers, Waste Management Control Officers, Air Quality Officers, Environmental Health Officers etc. Apart from having the potential for duplication, there is also potential for territorial and silo building by different sets of officers as they perform their duties.

It is necessary that one parental job title be adopted with an indication of specialist area, for example, depending on the spatial level and salary scale, all these officers could have their titles as Environmental Management Inspectors/Officers followed by their areas of specialisation like Waste Legislation, Air Pollution, Environmental Health etc. Hence the full title, for example will be *Environmental Management Inspectors/Officers: Air Pollution*. Already the NEMA Amendment Act (Act 107 of 2005) established the Environmental Management Inspectorate (commonly known as the 'Green Scorpions') that pulls together environmental enforcement officials (including air quality) from the national, provincial and municipal spatial scales.

## 5 Conclusion

This paper considered the discords associated with environmental and/or waste management in South Africa with a view to provide insights towards institutional and legal reforms. The discords are said to emerge from the Constitution and other environmental laws that fail to separate distinctively and clarify sufficiently the powers, roles and functions of the three spheres of government that include the national, provincial and local authorities in terms of waste management. In addition, the confusion was indicated to stem from the failure of key environmental and/or waste legislation and institutions to 'talk' to each other both vertically and horizontally. The paper also established that no binding national legislation currently deals specifically with the management of health care waste in South Africa, although provincial legislation for the Gauteng and Western Cape Provinces exist. On the other hand, the 2007 Waste Management Bill, in its final stages through Parliament, is said to propose more institutions and plans that may add to the existing confusion. The need therefore exists to seek clarity on the roles and responsibilities of the three spheres of government (both vertically and horizontally) and ensure that these roles are clearly defined and sufficiently detailed. This will enable officials and departments to fulfil their legislative mandates and ensure the continued protection of the environment and human health while supporting further economic growth and poverty eradication in South Africa.

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