

A CRITICAL ANALYSIS OF LEGISLATION AND POLICY PERTAINING TO
WASTE MANAGEMENT AND THE CONTROL OF POLLUTION CAUSED BY
WASTE IN URBAN AND INDUSTRIAL AREAS IN SOUTH AFRICA

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
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KEYWORDS

1. Critical analysis.
2. Legislation.
3. Policy.
4. Pollution control.
5. Waste management
6. Urban areas
7. Industrial areas.
8. Incentives.
9. Monitoring.
10. Implementation.

LIST OF ABBREVIATIONS

- DEAT** Department of Environmental Affairs and Tourism
- DWAF** Department of Water Affairs and Forestry.
- DM&EA** Department of Minerals and Energy Affairs.
- PPA** Physical Planning Act 125 of 1991.
- LGMSA** Local Government: Municipal Systems Act 32 of 2000.
- LGTA** Local Government Transition Act 209 of 1993.
- NEMA** National Environmental Management Act 107 of 1998.
- ECA** Environment Conservation Act 73 of 1989.
- DFA** Development Facilitation Act 67 of 1995.
- MEC** Member of Executive Council.
- EIA** Environmental Impact Assessment.
- LDO** Land Development Objective.
- IDP** Integrated Development Plan.
- DPC** Development and Planning Commission established in terms of section 5 of DFA.

ABSTRACT

The central problem of my research is on how pollution and waste can be controlled and managed in urban and industrial areas. This is worthy of study because if the above said problem is not studied in order to be properly controlled through proper measures, for example, through policy and legislation, its impact on the environment in general (soil, air, water) will worsen will worsen. That will not be in compliance with South Africa's international and Constitutional obligations to protect the environment from pollution. The way in which waste should be managed is also part the problem that must be studied because of South Africa's endorsement of Agenda 21, /CONF.151/26(1992) that focuses on strengthening the roles and capacities of local authorities to achieve sustainable development. It is therefore important to know the problems and their causes that are faced by the institutions charged with the implementation of waste management laws in order to solve those problems.

DECLARATION

I declare that *A Critical Analysis of Legislation and Policy Pertaining to Waste Management and the Control of Pollution Caused by Waste in Urban and Industrial Areas in South Africa* is my own work, and that all the sources I have used have been properly indicated and acknowledged by means of proper references.

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CHAPTER ONE

1.1. INTRODUCTION

1.1.1. WASTE MANAGEMENT

One of the challenges the new South African government must deal with is the problem associated with waste management and the control of pollution caused by waste. The authoritative report published by CSIR in 1991 estimated that South Africa generates almost three million tons of waste annually, which includes hazardous waste amounting to two million tons per year.¹

Social effects of South Africa's industrial waste generation are all vivid, as poorer communities have had to bear the cost associated with the negative impact of waste generation. It is generally acknowledged that the previously disenfranchised majority had to bear an inequitable burden of the social cost of pollution caused by improper waste management. There has been neglect in providing proper sanitation systems, and inadequate health and safety measures were taken in the mining industry, resulting in respiratory and other medical problems affecting workers and other associated communities.²

It has been estimated that about ninety per cent of total waste generated in South Africa is disposed on land, and this has the potential of causing pollution of not only the land but also of the air and water. In the context of the new South Africa and in the light of the past discriminatory practices, there is a problem of the siting of waste disposal sites, the issue which in short concerns the question why previously disadvantaged communities should bear the ill-effect of waste generated by industry.³

¹ *The Situation of Waste Management and Pollution Control in South Africa Report to the Department of Environmental Affairs by the CSIR Programme for the Environment CPE 1/91 (1991).*

² Lorreta A. Feris (1999) 'The Asbestos Crisis-the need for strict liability for environmental damage' in Glazewski, Bradfield (1999) 'Environmental Justice and the Legal Process' at 287.

³ Jan Glazewski (2000) 'Environmental Law in South Africa' at 667.

Another problem is that South Africa is a water-deficient and drought-prone country as a result of unfavorable and unpredictable climatic conditions. This fact coupled with rapidly escalating population numbers, industrialization and the need to redress the past socio-economic and gender imbalances, all emphasize the need to ensure that the quality of water available to the South Africans is kept to an optimum through proper waste management policy, law, and practice in order to control pollution caused by waste.⁴

One of the problems with waste management in South Africa is that some aspects of waste management are not being paid proper attention to when compared to others, for example, solid waste probably has been less of physical irritation than liquid and gaseous pollutants, since solid waste is disposed of on land and unlike air and water pollutants, do not disperse widely. This may be one of the reasons why less attention has been paid to the control of solid waste than to the control of other pollutants.⁵

To the person in the street, the most commonly perceived form of solid waste is litter, and this has caused mainly aesthetic anxieties, he or she hardly knows about the more insidious problems of solid waste, and does not realize the danger of resource depletion that goes hand in hand with the generation of solid waste. Whereas air and water have a natural assimilative capacity, and therefore capable of disposing of pollution through self-renewal if the capacity is not exceeded, solid waste needs to be collected, transported and disposed of, mostly upon the land where it does not generally disperse and mingle with the soil. According to Rabie, the disposals of solid waste demonstrate the rule of physics that matter is indestructible: although it can be changed in character, it cannot be made to disappear.⁶

Therefore, the less visible aspects of waste must also be properly dealt with. This must be done because of the fact that in certain instances, solid waste disposal is interrelated with air pollution through the burning of wastes and odours from open

⁴ Glazewski (2000) '*Environmental Law in South Africa*' at 759.

⁵ Rabie, (1976) '*South African Environmental Legislation*' at 159

⁶ See FN 159.

dumps. It is also interrelated with water pollution through contamination of underground water and the pumping of waste into the rivers, lakes and the sea.⁷

The solid waste management problem is also related, amongst others, to the improvement of methods of manufacture, packaging and marketing of consumer goods because the manufacturers generally do not accept the responsibility for the costs of getting rid of products that have been sold and have served their purpose. This refusal is for the reason that the disposal costs are not included in the price paid by the consumer for consumer goods. The problem is also related to the change in the characteristics of the discarded materials. The change towards packaged goods in disposable containers has for example put more plastics, glass, metals, and others instead of organic matter into refuse.⁸

There is also a relationship between the growth in waste generation and the economic and population growth in the country and the improvement of the standards of living. Lombard, Botha, and Rabie support this view.⁹ Stein is also of the view that the concentration of the population in expanding urban areas has presented these communities with serious financial, management and technical problems in the management of waste resulting from domestic, commercial, and industrial activities carried on in these areas.¹⁰ This makes it difficult to control pollution caused by waste in the concerned areas.

Although urban and industrial waste produce only a small percentage of total waste, they make up a disproportionate volume of waste, and are the most offensive to the environment and the most dangerous to health when allowed to accumulate near population centres. Such wastes should therefore be the chief targets of waste management programmes in urban and industrial areas in South Africa.¹¹

⁷ Rabie *op cit* at 159.

⁸ Rabie *op cit* at 160.

⁹ Fuggle, Rabie (1992) '*Environmental Management in South Africa*' at 509.

¹⁰ Stein '*Regulation of Waste Management in South Africa-A case for integration*' (1997) 4 SAJELP at 265.

¹¹ Rabie *op cit* at 162.

Traditionally, waste management, especially the collection and disposal of solid waste, has been considered as the function of local government. Although other forms of environmental pollution, such as air and water pollution are controlled on a national scale, waste management remains principally a local concern whereas a general feature of waste by-laws primarily relate to the protection of health and prevention of public nuisances.¹² They are not designed as conservation measures to reduce the volume of waste to prevent abuse of natural resources.¹³

Another problem in this regard is that some of the most important aspects of waste management, such as the provision of incentives for recycling, cannot be dealt with at the local level,¹⁴ and that is because of the fact that there are some factors constraining the existing efforts made by local authorities to enable themselves to deal with the above-mentioned aspects of waste management, for example, in the former Witwatersrand region, it has been said that local authorities were constrained by the Transvaal Local Government Ordinance 17 of 1939¹⁵ in their ability to offer financial incentives to individual companies in the form of rebates or tax holidays.

The above-mentioned Ordinance states that a local authority can set differential rates for different land uses but cannot vary these rates within each category. Accordingly, whilst some local authorities could reduce the rates levied on industrial land, they would have to do so for all industries and not as a means for either attracting or retaining specific enterprises.¹⁶ Therefore a supra-local level of planning is required so that several bodies concerned with waste management can be combined on a regional basis. This could allow for integrated use of disposal facilities in order to achieve greater economy. Greater economy in this regard could be achieved through reduction of operational, labour and other costs caused by the current numerous local government institutions that deal with the control of waste in an uncoordinated

¹² Fuggle RF, Rabie MA (1992) 'Environmental Management in South Africa' at 519.

¹³ Rabie *op cit* at 169.

¹⁴ Rabie *op cit* at 169.

¹⁵ Section 80B.

¹⁶ Input Paper: *Poverty and Inequality Report-The Constitutional Context*
<<http://www.gov.za/reports/1998/poverty/context.pdf>>.

manner. More efficient control of pollution caused by waste, and the provision of opportunities for a more comprehensive consideration of the reuse and recycling of wastes could also be achieved in this manner.

1.1.2. LACK OF COORDINATION

There seems to be too little consideration, coordination and central planning. Neither the national government nor the provincial governments have played any significant role to coordinate and stimulate waste management. Lombard, Botha, and Rabie say in this regard that in formulating and implementing a waste management strategy effectively, consultation is an important but often neglected element, because the more informed the people are, the greater the opportunity for cooperation and tolerance among various sections of the society and, particular attention must be paid to the management of waste in informal settlements.¹⁷

Historically, the lack of a clear waste management strategy in many public and private sector organizations in South Africa has resulted in the belated discovery of the devastating effects of poor waste management on the environment. Despite the existence of a considerable number laws of that provide some control over the production and disposal of waste that are in line with that of the developed countries, more specific legislation is still needed to control the waste management industry in South Africa.¹⁸

The management of waste should be a multi-disciplinary exercise and requires the input of a team with a wide field of expertise in order to deal comprehensively with the many facets of the waste management problem. There are many waste management laws in South Africa. These laws, however control waste management

¹⁷ Lombard, Botha, and Rabie 'Solid Waste' in Fuggle RF, Rabie MA (1992) 'Environmental Management in South Africa' at 493.

¹⁸ Fuggle RF, Rabie MA (1992) 'Environmental Management in South Africa' at 493.

in a haphazard and uncoordinated manner, for example the 1991 CSIR¹⁹ report revealed that waste management legislation is dispersed among at least 37 Acts of Parliament, 16 Provincial Ordinances, and numerous local by-laws.²⁰ This results in lack of effectiveness in the implementation of the concerned legislation.

This fragmentation of waste management legislation in South Africa has a result that the provisions of waste management statutes are administered by a multitude of public authorities, for example, section 20 of the ECA, which is a specific provision dedicated to waste management is administered by the Department of Water Affairs and Forestry, but eight other government departments are also involved in one way or another in the administration of this section through various inspection and control powers that these departments exercise over this section.

For example, the Department of Mineral and Energy Affairs, in terms of the provisions of Minerals Act 50 of 1991,²¹ inspects section 20 in respect of mining waste. The Nuclear Energy Act 46 of 1999²² inspects the same section in respect of radioactive waste. The Minister of Agriculture inspects section 20 in respect of remedies, insecticides and herbicides in terms of the provisions of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947.²³

The department of Health controls section 20 in respect of nuisances and human health and safety in accordance with the provisions of the Health Act 63 of 1977.²⁴ The Department of Land Affairs controls section 20 in respect of land use and management in terms of the Development Facilitation Act 67 of 1995.²⁵ The

¹⁹ *The Situation of Waste Management and Pollution Control in South Africa Report to the Department of Environmental Affairs by the CSIR Programme for the Environment CPE 1/91 (1991).*

²⁰ Stein (1997) 4 SAJELP at 255.

²¹ Section 8.

²² Section 45(1)-(3) and section 46(1)-(3).

²³ Section 7.

²⁴ Section 20(1)(a)-(b)(i) and (ii), and (c).

²⁵ Section 27 and section 28.

Department of Transport inspects section 20 in respect of the safe transportation of dangerous goods.²⁶

Waste management legislation in South Africa fails to contribute adequately to the avoidance of waste production as far as possible, greater use of degradable packaging material, the sorting of household waste at source to facilitate disposal and recycling, the recycling and utilization of waste, and the disposal of all residual waste in an environmentally acceptable manner.²⁷

1.1.3. WASTE MANAGEMENT STRATEGIES

In South Africa there is no definitive national policy for waste management.²⁸ The important subject of the control of hazardous wastes is regulated by a number of diverse statutes, such as, amongst others, the Hazardous Substances Act, Nuclear Energy Act and the ECA. These statutes are administered by different government bodies, such as DEAT, DM \$ EA thus frustrating a uniform approach. At the local level of government, where most of the control of waste seems to lie, there is seemingly no uniform set of by-laws for waste management.²⁹

The diffuse and uncoordinated way in which waste management and the control of pollution caused by waste is being dealt with by the South African legislation has been to some extent made worse rather than simplified by the new Constitution³⁰ which creates concurrent national, provincial, and in some instances, local government legislative competence in the sphere of pollution control.³¹ For example, water quality standards will be imposed at national level in terms of the Constitution,³² while local governments are responsible for legislation concerning the

²⁶ Stein 'Regulation of Waste Management in South Africa-A case for integration' (1997) 4 SAJELP at 264.

²⁷ Fuggle RF, Rabie MA (1992) 'Environmental Management in South Africa' at 521.

²⁸ Glazewski (1992) 'Environmental Law in South Africa' at 668.

²⁹ Stein *op cit* at 521.

³⁰ Act 108 of 1996.

³¹ Glazewski *op cit* at 632.

³² Schedule 4.

treatment of water and sanitation services as well as domestic waste water and sewage disposal systems.³³

There is a potential for legislative conflict in this situation, as well as likelihood that instead of promoting integration, it will create division because of the seemingly ad hoc appearances in schedules 4 and 5³⁴ of certain pollution control functions without apparently the whole pollution picture having been considered.³⁵

The above-mentioned constitutional arrangement presents possible practical administrative difficulties because administrative actions, such as the issuing of permits and granting of exemptions, are also carried out by officials at all levels of government. For example, a waste disposal site approved under the ECA³⁶ by the national Department of Water Affairs and Forestry, which has also been approved in terms of Provincial legislation and, which is contaminating ground water, may have constituted public nuisance but administrative responsibility between the national, provincial, and local levels of government may be unclear in this regard.³⁷

This is because the National Government may have promulgated water quality standards, which it is constitutionally entitled to do,³⁸ while the Provincial Government is responsible for enforcing the conditions of approval granted under provincial planning legislation and, while the Local Government is obliged by the Constitution to adopt by-laws to control public nuisance and to enforce such by-laws.³⁹

This might also cause confusion as to the allocation of responsibilities to different levels of government, because the Constitution, while providing for the administration of different pollution control laws at various levels of government. It

³³ Part B of Schedule 4.

³⁴ Constitution Act 108 of 1996.

³⁵ Glazewski *op cit* at 364.

³⁶ Section 20.

³⁷ Glazewski *op cit* at 364.

³⁸ Schedule 4 of the Constitution Act 108 of 1996.

³⁹ Part B of Schedule 5.

simultaneously acknowledges the need for cooperative government.⁴⁰ From the civil society's perspective, this situation makes it difficult to know which sphere of government is responsible and ultimately to whom one must complain in order to remedy the problem, which in turn shows that there are problems concerning overlapping jurisdiction and pinpointing responsibilities.⁴¹

In order for waste management and the pollution caused by waste to be properly and effectively controlled in a holistic manner, the problems within the existing waste management legislation must be eliminated to ensure that waste management policy and legislation achieve the objectives they were intended to achieve at their formulation and enactment.

1.1.4. DELIMITATION OF STUDY

The critical analysis of waste management legislation and policy in this regard will be dealt with mostly through desk-bound research. The research will also include interviews with local government officials charged with the implementation of these laws and experts in the field of pollution control and waste management law and practice.

Different aspects of the research problem are dealt with in detail in different chapters of this research project. *Chapter two* provides the discussion of waste management in urban and industrial areas in South Africa. *Chapter three* deals in detail with the problems associated with pollution control in urban and industrial areas in South Africa. *Chapter four* contains conclusions and recommendations. Conclusions will be made with reference to the literature that forms the framework of this research project and, with reference to interviews conducted with selected officials and experts. Recommendations will be based on the shortcomings revealed through the critical

⁴⁰ Glazewski *op cit* at 632.

⁴¹ Glazewski (2000) 'Environmental Law in South Africa' at 364.

analysis of policy and legislation pertaining to waste management and pollution control in urban and industrial areas in South Africa.

CHAPTER 2

WASTE MANAGEMENT IN URBAN AND INDUSTRIAL AREAS IN SOUTH AFRICA

2.1. INTRODUCTION

The South African waste management legislation does not achieve its intended purposes as far as waste management in urban and industrial areas is concerned. Critics agree in this regard that insufficient enforcement is the main reason for the ineffectiveness of environmental protection through legislative means.⁴² Loots⁴³ and Rabie and Fuggle support this view.⁴⁴

In South Africa, the most common methods of enforcing environmental laws are through criminal sanctions, administrative actions and civil litigation. It has been said that none of the above mentioned enforcement methods were effectively implemented during the apartheid era and the situation has not significantly improved beyond 1994.⁴⁵

The fragmented nature of environmental legislation and the division of responsibilities for the administration and enforcement of such legislation is one of the most serious problems relating to environmental law, including waste management law in South Africa.⁴⁶ The above-mentioned problems also result from the fact that the responsibility for regulating the environment is divided between

⁴² Loretta A. Feris (2000) 'The conceptualization of Environmental Justice Within the Context of the South African Constitution' (Dissertation presented for the Degree of Doctor of Laws at the University of Stellenbosch) at 82.

⁴³ Loots 'Making Environmental Law Effective' (1994) 1 SAJELP 16 at 17

⁴⁴ Fuggle RF, Rabie MA (1992) 'Environmental Management in South Africa' at 516.

⁴⁵ Feris op cit at 82.

⁴⁶ Feis op cit at 82

national government departments, provincial administrations, and local municipalities.⁴⁷

At the national level, the responsibility is equally fragmented, with different government departments controlling different matters, such as water and air pollution separately. It is this fragmented control that makes it difficult to regulate environmental problems, especially waste management, in a coordinated fashion.⁴⁸

As waste management is not the primary objective of all the different state departments that deal with the implementation of environmental law, a conflict of interests often arises between the involved governmental departments.⁴⁹ For example, most government departments, as well as other administrative bodies, some of which are development-orientated, are in some way or another involved in the administration of environmental affairs on the one hand. On the other hand, policies made and executed by development-orientated administrative bodies often lie at the root of environmental pollution and the degradation and depletion of natural resources.⁵⁰

The conflict of interest might arise when development-orientated government departments are expected to consider environmental impacts when performing their functions, as their primary objective is only economic development and not environmental protection.⁵¹ This fragmented waste management legislation is also an economically unsound way of regulating the environment because each department that is involved requires monetary and human resources.⁵²

Stein notes in this regard that a central feature of the lack of coordination in the legislation on waste management is the problem of the definition of “waste”. To

⁴⁷ Feris *op cit* at 82.

⁴⁸ Feris *op cit* at 184.

⁴⁹ See the discussion in 3.4.2 with section 14 (f) and schedules 1 and 2 of NEMA.

⁵⁰ Rabie ‘*The Environment Conservation Act and its Implementation*’ (1994) 1SAJELP at 5.

⁵¹ Act 73 of 1989.

⁵² Feris *op cit* at 186

illustrate this problem she takes the ECA⁵³ as her example, in which the definitions of waste excludes wastewater, effluents and mining waste and designate them for control under separate pieces of legislation.⁵⁴ This is a clear example of the fragmentation of waste management legislation. This problem is dealt with within the national, provincial, and local government levels.⁵⁵

2.2. WASTE MANAGEMENT AT THE NATIONAL GOVERNMENT LEVEL

2.2. (A) HAZARDOUS WASTE

The ECA does not define hazardous waste. This Act leaves the definition of hazardous waste to section 51 of the Hazardous Substances Act 15 of 1973⁵⁶ that is also relevant because it makes provision for control over the dumping and other forms of disposal of certain hazardous substances to be affected through the regulations made in terms of this Act. Such regulations have been issued in respect of the disposal of both empty and full containers of certain hazardous substances.⁵⁷

These regulations provide, among other things, that returnable containers of such hazardous substances the labels of which do not specify that it should be returned to the supplier must be perforated, flattened and then buried in the ground, or disposed of in an alternative safe manner.⁵⁸ Contravention of any of these provisions amounts to an offence.⁵⁹ These regulations also govern the transportation of certain hazardous substances by means of a road tanker,⁶⁰ which may include hazardous waste.

The problem with the above-mentioned regulations is, however, that their application is substantially limited by the fact that they apply to only 300 listed types of chemicals, and the road tankers that carry less than 500 litres of hazardous substances

⁵³ Act 73 of 1989.

⁵⁴ Stein *op cit* at 257.

⁵⁵ Stein *op cit* at 257.

⁵⁶ Section 29(1)(a)(vi).

⁵⁷ Government Notice R72 of 11 January 1985.

⁵⁸ Regulation 10(3).

⁵⁹ Regulation 11 read with section 29(8) of the Hazardous Substances Act.

⁶⁰ Government Notice R73 of 11 January 1985.

are kept outside the scope of the regulations so that no special roadworthiness requirements are imposed on such vehicles.⁶¹

The above-mentioned situation is problematic in the sense that the persons targeted by the regulations can defeat the object of the regulations for example, through using many trucks with a load capacity of less than 500 litres to transport the regulated hazardous waste instead of a few trucks that have a load capacity of more than the 500 litres in order to escape regulation.⁶²

The relevance of the Hazardous Substances Act to the definition of hazardous waste is that it makes the declaration of various hazardous substances in respect of which, among other things, particular packaging requirements must be complied with.⁶³

The definition of hazardous waste is determined by the administrative guidelines of the Department of Water Affairs and Forestry in its Minimum Requirements for Handling and Disposal of Hazardous waste.⁶⁴ The problem highlighted in this paragraph is the ECA's difficulty in defining hazardous waste, which in turn raises concerns about the ECA's ability to control the generation, transportation, and disposal of hazardous waste that the ECA itself is unable to define.⁶⁵

The fragmentation of administrative control powers, and in many instances the duplication of these powers contributes to one of the most significant problems in waste management in South Africa, and that is the situation of inadequate enforcement, as the availability of human resources to monitor and control environmentally damaging activities is severely limited, mainly due to the financial constraints in the budgets of various regulatory authorities.⁶⁶

⁶¹ Fuggle RF, Rabie MA (1992) ' *Environmental Management in South Africa*' at 517.

⁶² Fuggle and Rabie *op cit* at 517.

⁶³ Fuggle RF, Rabie MA (1992) ' *Environmental Management in South Africa*' at 516.

⁶⁴ Stein *op cit* at 257.

⁶⁵ Stein ' *Regulation of waste management in South Africa*' 1997) 4 SAJELP at 257.

⁶⁶ Feris *op cit* at 186.