



The legal, policy and institutional frameworks governing marine plastics in South Africa



ENVIRONMENTAL LAW PROGRAMME



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Report prepared by Climate Carbon and Environmental Legal Consulting

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Abbreviations

AU	African Union
DEFF	Department of Environment, Forestry and Fisheries
DWS	Department of Water and Sanitation
EPR	Extended Producer Responsibility
MARPOL	International Convention for Prevention of Pollution from Ships
MoA	Memorandum of Agreement
NEMA	National Environmental Management Act
NEMICMA	National Environmental Management: Integrated Coastal Management Act
NWA	National Water Act
NWMS	National Waste Management Strategy
PROs	Producer Responsibility Organisations
SARS	South African Revenue Services
UNCLOS	United Nations Convention on the Law of the Sea
WIO	Western Indian Ocean

Summary

The impact of plastics on South Africa's fresh and coastal water resources is becoming an increasingly prominent issue, with a number of recent studies highlighting the magnitude of the impact and its distribution on South Africa's coastline. Challenges and drivers are complex, and include a lack of basic waste management service delivery by Municipalities; a lack of recycling infrastructure; knowledge gaps regarding the extent of fresh water and marine plastic pollution and its causes; a lack of policy coherence in relation to plastic waste management; lack of a lifecycle approach to plastic management; and flagging economic growth and low employment rates fuelling sensitivities to regulatory restrictions on the plastic industry. South Africa has a variety of legal instruments available to address the challenge, however they have yet to be fully utilised or are still in the process of implementation. Since 2003, the State has implemented dedicated plastic regulations which impose restrictions on the minimum thickness of plastic bags, together with a levy upon manufacturers. The effectiveness of this regime has, however, been called into question and the State is considering a revision of its policy. At present, management measures are largely directed upstream and focused upon manufacturers and importers, with a view to promoting recycling measures that are primarily determined by industry. Following the rejection by the Minister of Environment, Forestry and Fisheries of the draft Industry Waste Management Plans, government is now seeking to pursue alternative extended producer responsibility (EPR) measures using alternative legislative provisions. It remains to be determined whether these can be timeously finalised to provide the relevant policy certainty on government's intentions within this sector.

1 National background

South Africa has a prominent coastline with many areas described as ‘pristine’ and ‘unspoilt’, however studies have indicated that beach sediments are polluted with synthetic (plastic) microfibres.¹ Although information is relatively limited, it was previously estimated that 630,000 metric tons of mismanaged plastic waste finds its way to South Africa’s coastal areas, placing the country eleventh in the world as a contributor to plastic marine pollution.² This ranking was attributable to a combination of *per capita* consumption of plastics and a high proportion of mismanaged waste (56%) not entering a formal disposal scheme.³ More recent studies, however, suggest that this figure may be grossly overstated, drawing to attention the need for ongoing monitoring and assessment.⁴ The impacts, however, are not limited to oceans and beaches: a recent and widely publicised study by the Water Research Commission found that South Africa’s freshwater systems, including groundwater, are also widely contaminated with microplastics, namely plastics which are less than 5mm in size.⁵ The extent of and main drivers of plastic pollution are still being researched and debated.⁶ At this stage, inadequate waste disposal and a lack of disposal infrastructure have been identified as the most likely primary drivers of mismanaged waste in the country.⁷ A notable contributing factor is the constrained ability of Municipalities to provide waste removal services with only 63.9 per cent of households receiving such services.⁸ Similarly behavioural attitudes to waste management to waste disposal may also contribute. The actual volume of plastics diverted away from landfills, is also low according to DEFF, somewhere between 10 per cent and 29 per cent.⁹ Figures indicate that the industry has nevertheless achieved a relatively high “recycling input rate” of

¹ Nel, H. and Froneman, P.W. (2015). A quantitative analysis of microplastic pollution along the south-eastern coastline of South Africa. *Marine Pollution Bulletin* 101(1):274-279.

² Jambeck, J. *et al.* (2015). Plastic Waste Inputs from Land into Ocean. *Science* 347:768-771.

³ *Ibid.*

⁴ Ryan, P.G. (2020). The transport and fate of marine plastics in South Africa and adjacent oceans. *South African Journal of Science* 116(5/6). p.3 where it is stated that “Jambeck *et al.* probably overestimated land-based inputs”. Similarly it is estimated in more recent studies that 29% of municipal solid waste is mismanaged, see Rodseth, C., Notten, P. and Von Blotnitz, H. (2020). A revised approach for estimating informally disposed domestic waste in rural versus urban South Africa and implications for waste management. *South African Journal of Science* 116(1/2).

⁵ Bouwman, H. *et al.* (2018). *Microplastics in Fresh Water Environments: A Scoping Study- Report to the Water Research Commission*. WRC Report No.2610/1/18.

⁶ In an attempt to better understand these impacts, the South African government has completed a Plastic Material Flows and End of Life Management Study. Civil society is also developing a set of monitoring protocols and data, see for example the work undertaken by the Sustainable Seas Trust available at: <https://africanwastenetwork.org.za>. At present, there is a discrepancy between industry reported figures and DEFF statistics of the extent of plastic waste which is not recycled, some discrepancies and uncertainties on how much waste from households that self-dispose of their waste ends up in the environment, and the amount of plastic which is littered or which leaks from disposal sources into the environment (von Blotnitz, H., Chitaka, T. and Rodseth, C. (2018). *South Africa beats Europe at plastics recycling, but also is a top 20 ocean polluter. Really?*. Unpublished paper by the Environmental & Process Systems Engineering Research Group, University of Cape Town.

⁷ Verster, C. *et al.* (2017). Marine and Freshwater Microplastic Research in South Africa. *Integrated Environmental Assessment and Management* 13(3):533.

⁸ Statistics South Africa (2017). *The state of basic service delivery in South Africa: in-depth analysis of the Community Survey 2016 Data Report 03-01-22*.

⁹ Department of Environmental Affairs (2017). *Plastics material flow and end of life management in South Africa* (report not released for public comment yet) (MFA); The range is as a result of considerable uncertainties of the volume of indirect plastic imports. Whilst recycling activities take place, there is little separation at source, with the majority of recycled plastics (74 per cent) sourced from landfills and other post-consumer sources (at vi).

46.3%, positively indicating a relatively high proportion of recycled material as a proportion of raw input material within in domestic manufacturing.¹⁰

South Africa also has a vibrant plastics manufacturing sector, a valuable asset in the context of flagging economic growth rate and relatively high unemployment rates. It is used in almost every sector in the economy, with the plastic manufacturing industry contributing 2.1 per cent to the gross domestic product and 21.8 per cent to the manufacturing sector in 2018.¹¹ The industry employs approximately 60,000 people formally and informally, and in the absence of government intervention, there is little prospect that plastic use and production will decrease.¹²

Plastics including plastic wastes, are regulated directly and indirectly by a suite of environmental laws, including dedicated plastic bag regulations, and the National Environmental Management: Waste Act;¹³ the National Environmental Management: Integrated Coastal Management Act (NEMICMA);¹⁴ the Marine Pollution (Prevention of Pollution from Ships) Act, read together with its regulations;¹⁵ the National Environmental Management Act (NEMA);¹⁶ and the National Water Act (NWA).¹⁷ These are complemented by a series of other specific legal provisions, including for example regarding imports and trade as well as tax incentives. Of these laws, the most prominent and relevant to plastic pollution is the Waste Act.¹⁸ Primary responsibility for the implementation of the Waste Act rests with the Department of Environment, Forestry and Fisheries (DEFF), however matters such as local waste disposal and management fall within the jurisdiction of Municipalities. The relevant provisions of the Waste Act and the associated institutions and processes are discussed in the sections which follow.

2 International obligations

South Africa is signatory to a number of international and regional conventions, treaties and agreements relating to waste, marine pollution and the protection of the environment. In relation to pollution of the coastal environment, these include the United Nations Convention on the Law of the Sea 1982 (UNCLOS), the International Convention for Prevention of Pollution from Ships 1973 (MARPOL) and its Protocols, and the Protocol for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1996 (London Protocol). These treaties and conventions are effected through a series of domestic laws, the most relevant of which include NEMICMA; the Marine Pollution (Prevention of Pollution from Ships) Act 1986, the NWA and the Waste Act.

¹⁰ Recycling input rate does not mean the amount of plastics diverted from landfill, but rather represents the fraction of recycled material as a proportion of raw material inputs. For industry statistics, see PlasticsSA (28 August 2019). "Plastic recycling: South Africa versus Europe". Available at <https://www.plasticsinfo.co.za/2019/08/28/plastic-recycling-south-africa-versus-europe/> (accessed 23 June 2020).

¹¹ See Department of Trade and Industry. *Industrial development*. Available at <http://www.thedtic.gov.za/sectors-and-services-2/industrial-development/plastics/> (accessed 11 June 2020).

¹² *Ibid.*

¹³ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act).

¹⁴ The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (NEMICMA).

¹⁵ See GNR.1491 of 29 May 1992: Reception facilities for garbage from ships regulations 1992; and GNR.1490 of 29 May 1992: Prevention of pollution by garbage from ships regulations; The Marine Pollution (Prevention of Pollution from Ships) Act 1986 (Act No. 2 of 1986).

¹⁶ National Environmental Management Act (Act No. 107 of 1998) (NEMA).

¹⁷ National Water Act (Act No. 36 of 1998) (NWA); The dedicated plastic bag regulations can be found in GNR.625 of 9 May 2003: Plastic carrier bags and plastic flat bags.

¹⁸ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act).

Similarly, South Africa is also a party to various species and biodiversity treaties including but not limited to the Convention on Biological Diversity 1992; the Convention on Migratory Species 1979; and the UN Fish Stocks Agreement 1995. From an implementation perspective, these treaties are effected through various domestic laws which are focused on species conservation and the regulation of natural resources.¹⁹

Table 1: The international conventions related to plastic pollution ratified by South Africa

Agreement	Ratified	Implementing Legislation
UNCLOS	23 December 1997	<ul style="list-style-type: none"> • The National Environmental Management: Waste Act • The Marine Pollution (Prevention of Pollution from Ships) Act • The National Environmental Management: Integrated Coastal Management Act • The National Water Act
MARPOL	28 November 1984 (accession)	<ul style="list-style-type: none"> • The Marine Pollution (Prevention of Pollution from Ships) Act
London Convention 1972	6 September 1978 (accession)	<ul style="list-style-type: none"> • The Marine Pollution (Prevention of Pollution from Ships) Act • The National Environmental Management: Integrated Coastal Management Act (although originally a signatory to the London Convention, South Africa is also a party to the 1996 London Protocol, which repeals the London Convention, meaning that it no longer applies to South Africa)
London Protocol 1996	2 March 1998	

Interestingly, whilst South Africa is a member of the African Union (AU), and whilst it is also a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1992 (Basel Convention), it is not a party to the AU's Bamako Convention. The Bamako Convention imposes an outright ban on the import of hazardous waste into Africa. South Africa was not eligible to be a party of the then Organisation of African Unity (now the African Union) at the time that the Bamako Convention was concluded as a result of apartheid, although it subsequently joined the African Union in 1994 at the end of the apartheid regime. Further, in 2014, the former Minister of Environmental Affairs stated that the government did not intend to sign or ratify the Bamako Convention in order to protect and encourage the local recycling industry.²⁰ Since becoming a party to the Basel Convention,

¹⁹ Such as the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and the Marine Living Resources Act, 1998 (Act No. 18 of 1998).

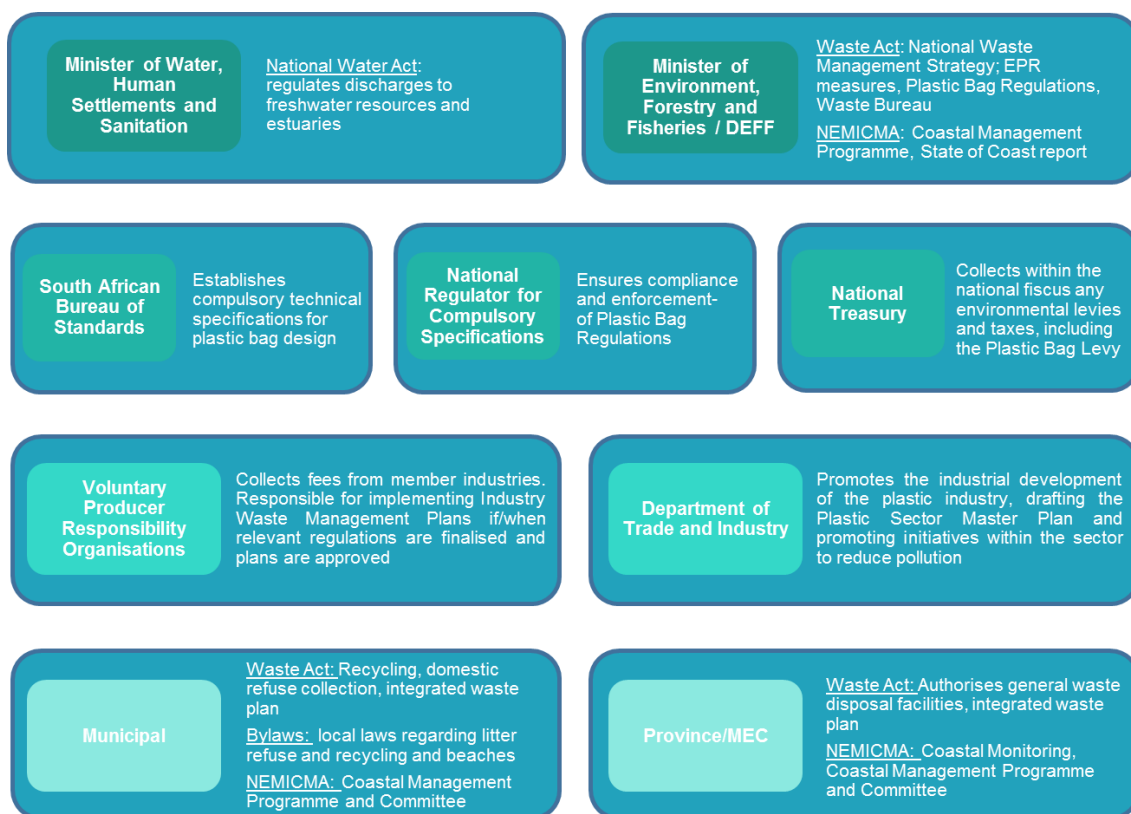
²⁰ Vecchiato, P. (13 November 2014). *SA rejects hazardous waste treaty*. Available at <https://www.tralac.org/news/article/6621-sa-rejects-hazardous-waste-treaty.html> (accessed 20 November 2019).

South Africa has promulgated a dedicated Waste Act, which amongst other things, gives effect to its international obligations through waste import and export regulations, that impose procedural and related controls in relation to the transit, import and export of all wastes.²¹

At a regional level, South Africa is party to various agreements, protocols and regional plans. These include participation in the AU's Agenda 2063, which concluded a high level working session on banning plastics in Africa at the 32nd AU Summit in 2019. Similarly, South Africa is party to the Nairobi Convention for the Protection, Management and Development of Coastal and Marine Environment of the Western Indian Ocean (WIO) region, 1985, and its Strategic Action Programme. It is also party to the Abidjan Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region, 1985, and its Protocols. Internationally, South Africa is party to the G20 Action Plan on Marine Litter (2017) and the 2030 Agenda for Sustainable Development, and the Sustainable Development Goals and has also participated in various other international resolutions relating to plastics and marine litter.²²

3 Relevant institutions and processes

Figure 1: The government and voluntary institutions involved in plastics management in South Africa



²¹ GN No. 625 of 13 August 2012: National Waste Information Regulations and GN No. 22 of 21 January 2019: Regulations Regarding the Import and Export of Waste. These have yet to come into effect.

²² Such as the Third United Nations Environmental Assembly (UNEA): Resolution adoption on Marine litter and Single use plastics, UNEP/EA.3/Res.7 (December 2017); and the Fourth UNEA Resolutions on Plastics UNEP/EA.4/L.7; and UNEP/EA.4/L.10 (December 2020); as well as endorsement of the United Nations Clean Seas Campaign in 2017.

Primary responsibility for the implementation of the Waste Act rests with the Minister of Environment, Forestry and Fisheries (Minister) and DEFF. The Minister has numerous powers and functions which are of relevance to plastics, including the power to impose Extended Producer Responsibility (EPR) requirements and implement the Plastic Bag Regulations, as discussed below. The oversight of these measures is partially carried out within DEFF's recently established Waste Management Bureau. DEFF is also responsible for drafting the National Waste Management Strategy (NWMS) to achieve the objectives of the Act, including the achievement of the waste hierarchy.²³ Waste management is however, a shared inter-governmental function, and powers and responsibilities are also cascaded down from national to provincial and local levels. For example, Provinces and Municipalities are responsible for developing provincial and local integrated waste management plans.²⁴ The latter are required to contain, amongst other things, an assessment of quantities and types of waste generated, targets for waste minimisation, reuse, recovery and recycling as well as priorities and objectives for waste management.²⁵ Whilst such plans are required to obtain information on the quantities and types of waste generated, in practice, and specifically in relation to plastic waste, the national department has been monitoring and assessing plastic waste flows.²⁶ The Environmental Management Inspectors within DEFF are generally responsible for compliance and enforcement measures, however the National Regulator for Compulsory Specifications is responsible for compliance and enforcement of the minimum specifications for plastic bags. Similarly, the plastic bag levy which is paid by manufacturers is paid to the South African Revenue Services, the National Treasury is responsible for its allocation. Where it is allocated to the Waste Management Bureau, it can be allocated to stakeholders for disbursement.

In relation to domestic refuse collection, recycling facilities and related disposal, primary responsibility lies with local Municipalities. In recognition of this Constitutional function, the Waste Act requires Municipalities "as far as reasonably possible" to provide containers or receptacles for the collection of recyclable waste that are publicly accessible.²⁷ Municipalities also are responsible for developing local bylaws regarding various issues within the Constitutional competence, such as litter, recycling collection schemes and separation of wastes within households.

Whilst refuse collection and recycling is a Municipal responsibility, capacity is an often-cited challenge, particularly for small and/or largely rural Municipalities due to insufficient budgetary provision for waste management services.²⁸ Municipalities also charge that budgetary constraints are a result of unfunded mandates relating to recycling. Compliance by Municipalities with landfill legal standards is particularly low, with a survey in 2017 demonstrating that 70 per cent of sites achieved a compliance rating of less than 50 per cent.²⁹

²³ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 6. The waste hierarchy, as provided for in the preamble to the Waste Act, is to avoid the generation of waste, or where it cannot be avoided that it is reduced, reused, recycled or recovered and only as a last resort treated and safely disposed of.

²⁴ *Ibid.* Sections 11 and 12.

²⁵ *Ibid.* Sections 11 and 12.

²⁶ See for example Department of Environmental Affairs (2017). *Plastics material flow and end of life management in South Africa* (report not released for public comment yet) (MFA).

²⁷ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 23. See also GN 21 of 21 January 2011 Domestic Waste Collection Standards. Section 4.2. The Act does not define recyclables, however the National Domestic Waste Collection Standards refer to the need for recycling facilities for both "mainstream recyclables (paper, cardboard, newspapers, magazines, plastic, glass, metal cans and tin" as well as "non-mainstream recyclables (electronic waste, scrap metal, batteries, fluorescent lights, used oil etc.)".

²⁸ *Ibid.*

²⁹ Department of Environmental Affairs (2018) *State of Waste Report* (draft).

The relatively low costs of landfilling also make it a preferred option over recycling.³⁰ The consequence is higher levels of illegal dumping, litter, improper landfill management, inadequate enforcement of local littering and waste management bylaws, and a failure to introduce recycling options to households.

DEFF, together with Provincial and local government, are also responsible for the implementation of South Africa's national coastal laws, including NEMICMA. In a similar fashion to the Waste Act, the three spheres of government have a tiered responsibility for coastal planning measures at a national, provincial and local scale. The Act also creates tiered institutional structures dedicated to coastal management, namely the National Coastal Committee, the Provincial Coastal Committees (both multi-representative bodies established by the Minister and MEC respectively) as well as discretionary Municipal Coastal Committees. These bodies are tasked with various functions including the implementation of their respective coastal management programmes. There is no statutory requirement under NEMICMA to include pollution control measures within these programmes but the Provincial and local spheres of government have the constitutional power to do so.³¹ Provincial authorities have a broad monitoring mandate of the coastal zone under the Act, including "litter monitoring" and shipping flotsam.³² At a national level, the Minister is responsible for developing the "State of the Coast" report.³³

The management of plastic pollution on the coast is, however, further fragmented by the fact that the Department of Water and Sanitation (DWS) is the relevant authority for the discharge of water containing solid or other wastes into freshwater resources, including estuaries, including the management of any plastic particles and litter in such discharges.³⁴ However, plastic pollution on riverbeds and coast, and the discharge into the coastal and marine environment (excluding estuaries) is regulated by DEFF. Further, the National Ports Authority regulates and manages ports, which ports also receive downstream plastic pollution from rivers and estuaries, in relation to which DEFF also has management responsibility. This overlap amplifies the need for a high degree of cross-departmental coordination in relation to coastal discharges.

Lastly, government efforts are also complemented by a number of industry, NGO and community led initiatives. Within industry, these initiatives have a formalised structure with a number of Producer Responsibility Organisations (PROs) having been established to lead plastic pollution management and prevention initiatives across the sector. The PROs are financed by a voluntary levy paid by PRO members.

³⁰ See Godfrey, L. and Oelofse, S. (2017). Historical Review of Waste Management and Recycling in South Africa. *Resources* 6:5.

³¹ The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (NEMICMA). Sections 69 and 71.

³² *Ibid.* Section 38(2)(c), which requires the monitoring of the state of the environment in the coastal zone; relevant trends affecting that environment, and identification of provincial priority issues. Section 93 requires the MEC of each province to prepare a report on the state of the coastal environment, which must be submitted to the Minister of Environmental Affairs. See also Department of Environmental Affairs (2014). *South Africa's National Coastal Management Programme*. Cape Town. Appendix E which applies to litter monitoring and flotsam.

³³ The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (NEMICMA). Section 93(3).

³⁴ Under the National Water Act (Act No. 36 of 1998).

4 Legal and policy frameworks

4.1 Overarching law or strategy

South Africa's Waste Act applies to plastics throughout their lifecycle, including as products (for example in relation to product design or the banning or control of certain products) as well as in waste form (for example through Industry Waste Management Plans and EPR requirements). The Waste Act also provides for layered planning instruments for waste management across government. First, it provides for the development of the NWMS to achieve the objectives of the Act, including the achievement of the waste hierarchy.³⁵ The NWMS was published in 2012, and is currently under review with a view to a further iteration being published.³⁶

The NWMS presently does not contain any provisions directly related to plastic wastes.³⁷ It does, however, contain a number of goals that are relevant to plastic waste management, including that 25% of recyclables (namely "paper, plastic, metal, tyres and glass") be redirected from landfill sites for re-use, recycling or recovery.³⁸ The NWMS also contains a goal for all Metropolitan Municipalities, secondary cities and large towns to have initiated waste separation at source programmes by 2016 and the achievement of waste reduction and recycling targets set in Industry Waste Management Plans.³⁹ Similarly, it contains an aspiration for 95% of urban households and 75% of rural households to have adequate waste collection services, and for 80% of Municipalities to be running local awareness programmes by 2016.⁴⁰ The majority of these goals have not been met and the draft revision of the NWMS contains new goals for the following 5, 10 and 15 year periods.⁴¹ Outside of the NWMS, new targets were mooted in 2017, as part of the Operation Phakisa targets for Chemicals and Waste. These include a target to have 50% separation at source of household waste by 2023 and the introduction of materials facilities and pelletization plants to increase plastic recycling rates.⁴² These targets have yet to be incorporated into a revised version of the NWMS.

In 2017, DEFF also drafted a report, entitled "Plastic Material Flow and End of Life Study in South Africa" (MFA) which contained a number of recommendations. This report has yet to be finalised and formally published, although the current draft does contain various policy recommendations.

Another law of particular relevance to marine plastic pollution is NEMICMA, which regulates the management of South Africa's coasts. NEMICMA provides for the development of a National Coastal Management Programme which was published in 2014.⁴³ The programme addresses issues of marine pollution in general terms but does not address plastics

³⁵ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 6.

³⁶ Department of Environmental Affairs (2012) *National Waste Management Strategy*. A draft update to the Strategy was published for public comment on 3 December 2019.

³⁷ *Ibid.* The proposed draft update does however include various provisions in relation to plastic waste specifically.

³⁸ *Ibid.* See goal 1 on page 6 and page 23.

³⁹ *Ibid.* See goal 1 on page 6.

⁴⁰ *Ibid.* See goal 2 on page 6; goal 4 on page 7.

⁴¹ *Ibid.* Including a target to "reduce the total volume of waste disposed to landfill by 50% within 5 years; by 65% within 10 years; and at least 80% within 15 years".

⁴² See Parliamentary Portfolio Committee for Environmental Affairs. Meeting Minutes: Chemicals and Waste Phakisa, 17 October 2017. The Department of Science and Innovation also developed targets for a 20% reduction (by weight) in industrial waste and a 60% reduction (by weight) in domestic waste to landfill by 2025. See Department of Science and Technology (2014). *A Waste Research, Development and Innovation Roadmap for South Africa (2015-2025)*. Summary report.

⁴³ Department of Environmental Affairs (2014). *The National Coastal Management Programme of South Africa*.

specifically. The Programme also contains three goals in relation to coastal water pollution, namely to establish a national water quality monitoring programme, to facilitate an improvement management plan/campaign for coastal water quality, and the development of specific programmes that address marine litter, nutrient enrichment and storm water management.⁴⁴

4.2 Production

4.2.1 Plastic Bag Regulation

In 2003, the Plastic Bag Regulations were published to restrict the production of non-reusable plastic shopping bags and to promote the re-use and recycling of plastic bags, referred to at the time as the nation's "national flower".⁴⁵ These regulations prohibit the manufacture, trade and commercial distribution of domestically produced and imported plastic carrier bags and plastic flat bags unless the bags comply with the "Compulsory Specifications". The Compulsory Specifications require plastic carrier and flat bags to have a minimum thickness of 24 microns. The prohibition in relation to minimum thickness does not, however, apply to the following items: bread bags; refuse bags; bin liners; household plastic bags; primary packaging and plastic bags for export. It is an offence for manufacturers, traders and commercial distributors to contravene the regulations (i.e. it would not be an offence for private individual consumers). The National Regulator for Compulsory Specifications undertakes the relevant compliance assessments. Those convicted may be subject to a fine or imprisonment for a period not exceeding 10 years or to both such fine and imprisonment.⁴⁶ In addition to the fine imposed at the time of conviction, a further punitive fine may be imposed for an amount not exceeding three times the commercial value of anything in respect of which the offence was committed.⁴⁷

Table 2: The regulations on plastic bags in South Africa

Prohibition			
Type of Bag	Duty Bearer	Banned bags	Exceptions
Flat and Carrier Bags	Manufacturers, traders, distributors.	Bags thinner than 24µm	bread bags; refuse bags; bin liners; household plastic bags; primary packaging and plastic bags for export
Levies and Costs			
Type of Bag	Levy/cost paid by	Amount	Payable to
Flat and Carrier Bags	Manufacturers	ZAR 0.25	South African Revenue Services
Flat and Carrier Bags	Individual consumers	Unregulated but approximately between ZAR 0.65 varying across retailers	Retailers

⁴⁴ *Ibid.* See Management Objective 4.2 and 4.3 on page xv.

⁴⁵ GNR.625 of 9 May 2003: Plastic carrier bags and plastic flat bags.

⁴⁶ The maximum penalty is not specified in the regulations and as such the default limitations of the courts would apply, namely a fine of up to ZAR 120,000 in a Magistrate's Court and ZAR 600,000 in a Regional Court.

⁴⁷ GNR.625 of 9 May 2003: Plastic carrier bags and plastic flat bags. Regulation 3.

In addition to the minimum thickness requirement, a nominal levy was imposed by the National Treasury on manufacturers, and then a relatively larger amount was then charged by retailers to consumers. This arrangement arose as a result of a Memorandum of Agreement (MoA) entered into between industry and government in September 2002, in terms of which retailers undertook not to charge consumers more than ZAR 0.46 at the time per bag.⁴⁸ There has been concern that retailers are now using this opportunity to profit from the sale of plastic bags, although the extent of such profit, if any, is unknown.⁴⁹

At a national level, cost recovery levy was ostensibly earmarked for environmental purposes and recovered by the South African Revenue Services (SARS) from manufacturers, the current rate of which is now ZAR 0.25.⁵⁰ In its original conception under the MOU, the environmental levy was intended to fund recycling programmes, and to this end a non-profit company established and funded by government, Buyisa-e-Bag, was created to promote plastic bag recycling. The company was wound up in 2011, as a result of the alleged mismanagement of funds. The National Treasury's policy is to not fully earmark funds, rather DEFF is required to make submissions to the National Treasury of 'an approved and clear business plan' for the use of a portion of the funds to implement recycling programmes.⁵¹ As such, the current position allows for DEFF to apply to National Treasury to motivate for an allocation of accrued funds for recycling or related purposes. In 2019 DEFF initiated a review of the Plastic Bag Regulations with a view to considering how they could be improved.

4.2.2 Product bans

In addition to banning bags below 24 microns, the Minister also enjoys wide regulatory powers to impose restrictions or bans on certain products. The Minister can do so using two mechanisms. The first is by identifying a "priority waste" if it threatens health, well-being or the environment.⁵² Once declared, the Minister may require a number of measures to be taken in respect of such waste. These may include requiring "identified persons" to have a dedicated Industry Waste Management Plan for the specific product which generates the priority waste; a prohibition on the generation of the priority waste; and measures for its management and recycling and similar requirements. This approach allows for a more targeted and tailored approach to specific plastic products with a high environmental risk or impact, and which are more appropriately managed outside of a general Industry Waste Management Plan for packaging (see Section 4.2.4). Secondly, the Minister can also use the widely phrased provisions under NEMA to ban problematic products. In terms of NEMA, the Minister of

⁴⁸ Hasson, R., Leiman, A. and Visser, M. (2007). The Economics of Plastic Bag Legislation in South Africa. *South African Journal of Economics* 75(1):66. This amount was subsequently lowered to ZAR 0.32, with the public paying ZAR 0.17 and retailers absorbing the remaining ZAR 0.15.

⁴⁹ Parliamentary Portfolio Committee on Environmental Affairs. *Meeting Minutes: Single use plastics ban, 27 February 2019*. Available at: <https://pmg.org.za/committee-meeting/27987/>.

⁵⁰ See National Assembly Question for Written Reply 1367 (NW1731E) of 12 September 2014 as well as the current rate published by the South African Revenue Service, available at <http://www.sars.gov.za>. The levy is legally mandated by the Customs and Excise Act 1964 (Act No. 91 of 1964).

⁵¹ According to media reports, approximately ZAR 1.8bn has been raised as a result of the levy and ZAR 919.6m has been allocated to recycling projects (Rodgers, G. (19 March 2018). "Only Half of Plastic Bag Levy has Gone to Support Recycling". *Business Day*); In its statement, however, DEFF cited the proposed management of plastic bag recycling through Industry Waste Management Plans, the monitoring of which would be through DEFF's Waste Bureau. On this basis DEFF stated that approximately ZAR 155m had been allocated to DEFF's Waste Bureau between 2017 and 2020 "for the regulation of the thickness of plastic bags, and to support recycling initiatives for (the) period". Department of Environmental Affairs (12 April 2017). *Department of Environmental Affairs strives to improve plastic bag recycling in South Africa*. Available at <https://www.environment.gov.za/mediarelease/deaonimproveplasticbagrecyclinginSA> (accessed 19 May 2019).

⁵² National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 14.

Environmental Affairs has the power to “regulate, prohibit or control the production, sale, distribution, import or export of products that may have a substantial detrimental effect on the environment”.⁵³

To date, no priority wastes have been formally declared under the Waste Act, nor are there any bans under NEMA. DEFF has, however, made mention of a few waste streams which it considers to be a priority (i.e. given attention to but not formally declared as “priority wastes” yet), including the so-called “short lived” or single-use plastics. Examples of such waste streams, according to the DEFF, are “cotton buds; take away packs; plastic plates, cups and cutlery”.⁵⁴ Industry representatives have opposed a ban, citing the lack of alternatives.⁵⁵ To this end, the Department has recently commenced with consultations and discussions on how the informally “prioritised” single-use plastics could be phased out. A key issue of such discussions is how to avoid job losses in the relevant sector, and the employment implications of introducing or promoting alternatives.⁵⁶ DEFF is also in consultation with the Cosmetics and Fragrance Association of South Africa to negotiate the voluntary phase out of microbeads in cosmetic products, and is encouraging the industry to commit to voluntary timeframes for a phase out, in the absence of which the Department of Health may take further action to regulate these products.⁵⁷

4.2.3 Product design

The Waste Act also empowers the Minister to impose minimum recycled content requirements for specific products, including plastics.⁵⁸ Using this mechanism, the Minister, in consultation with the Minister of Trade and Industry may require a person or category of persons to include a determined percentage of recycled material in a product that is produced, imported or manufactured by them. Further, the Minister can also direct an industry to either develop an Industry Waste Management Plan which proposes certain measures or, if not provided or inadequate, the Minister can direct specific measures in relation to a product or class of products, as discussed below. These measures can include product and packaging design, labelling and similar product requirements.

4.2.4 EPR mechanisms

The Waste Act contains extensive provisions relating to waste disposal, management, and recycling, with a particular emphasis on EPR. First, the Act imbues the Minister with the power to require a person, category of persons, an industry or an organ of state to submit an Industry Waste Management Plan for approval, which specifies, amongst other things, measures the industry will implement to manage a particular product or packaging material throughout its lifecycle, including at the design phase and production, up to the stage of its disposal and

⁵³ National Environmental Management Act (Act No. 107 of 1998) (NEMA). Section 39A.

⁵⁴ Donnelley, L. (18 April 2019). *Death or taxes for polluting plastic*. Available at <https://mg.co.za/article/2019-04-18-00-death-or-taxes-for-polluting-plastic> (accessed 1 August 2019).

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Parliamentary Portfolio Committee on Environmental Affairs (15 August 2018). *Meeting Minutes: Plastics environmental impact & possible ban*. Available at <https://pmg.org.za/committee-meeting/26836/> (accessed 19 May 2019). Such action would be a ban under the Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972); ⁵⁷ Department of Environmental Affairs (19 September 2018) *DEA commemorates International Coastal Cleanup Day*. Available at <https://www.environment.gov.za/events/internationalcoastalcleanupday2018> (accessed 20 November 2019).

⁵⁸ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 17(2)(b).

related waste management.⁵⁹ The Minister may then approve, require amendments to, or reject the plan. If a person or category of persons fails to submit a plan or revise it in the required manner, the Minister may then specify the measures which must be taken within the plan.⁶⁰ It is an offence to fail to submit a plan or to fail to comply with an approved Industry Waste Management Plan. If convicted, a fine may be imposed of up to ZAR 5 million and/or 5 years imprisonment.

Further, under a separate section, the Act also empowers the Minister to directly impose “extended producer responsibilities” (i.e. EPR measures) upon a product or class of products. In this instance, the nature of those responsibilities is determined by the Minister, and not the industry.⁶¹ Once these products are identified, the Minister may specify the EPR measures that must be taken in respect of that product and identify the persons or category of persons who must implement the measures. This includes how an “extended producer responsibility programme” is implemented and operated, financial arrangements, institutional arrangements, the percentage of products to be recovered, design or composition requirements of the product or packaging and similar requirements. The NWMS has clarified that the EPR mechanisms set out in this section are only to be used where the Industry Waste Management Plans have proven to be ineffective and require the Minister (and not industry) to specify the required measures. To date, the Minister has not acted in terms of this more directive section however, in view of the fate of the draft Industry Waste Management Plans, the Minister has stated she intends to do so in future.

In 2017, the Minister called on the Paper and Packaging Industry, Electrical and Electronic Industry and the Lighting Industry to prepare and submit Industry Waste Management Plans for approval.⁶² The Notice applies to producers, including producers of plastic packaging. Producers are required to register with and subscribe to at least one approved plan.⁶³ The notice also required the plans to be aligned to the “National Pricing Strategy for Waste Management (Extended Producer Responsibility; government managed model)”.⁶⁴ It expressly provided for the development and registration of Producer Responsibility Organisations (PROs) for the registration and implementation of the plan. The PROs are non-profit companies established by the industries which implement the Industry Waste Management Plan, with the sole purpose of ensuring the plan’s implementation.⁶⁵

⁵⁹ *Ibid.* Sections 28-30. The Minister is required to specify the type of information which must be included in the plan (see Section 29 and 30 of the Waste Act for the required information). For example the plan can be required to address the phasing out of specified substances; changes to packaging, product design or production processes; mechanisms for informing the public of the impact of the product/packaging; financing of consumer based waste reduction programmes; waste management measures; waste minimization programmes; and monitoring and reporting.

⁶⁰ *Ibid.* Section 33.

⁶¹ *Ibid.* Section 18.

⁶² GN No. 1353 of 6 December 2017.

⁶³ *Ibid.* Sections 1 and 2.

⁶⁴ *Ibid.*

⁶⁵ Department of Environmental Affairs (2016) *National Pricing Strategy for Waste Management* (in GN No. 904 of 11 August 2016). Section 6.3. The reference to the National Pricing Strategy relates to government’s preference for Industry Waste Management Plans to follow a funding model whereby producers and manufacturers pay an EPR “tax” to the South African Revenue Services. This tax is also referred to as an EPR fee, and would be collected through the Customs and Excise Act 1964 (Act No. 91 of 1964). These funds would then be allocated by the National Treasury to the DEFF/ Waste Management Bureau, which will be the entity finally responsible for their disbursement to the PRO.

The draft plans were submitted in September 2018, including Packaging South Africa's consolidated multi-stream Industry Waste Management Sector Plan. The draft plan did not however follow DEFF's preferred pricing model. On 13 December 2019, the Minister published a notice withdrawing her decision to call for Industry Waste Management Plans (in terms of Section 28) on the basis that none of them complied with the criteria specified by the Minister.⁶⁶ The Minister stated that a "new approach" was required in order to achieve the same objectives of the proposed Industry Waste Management Plans and stated that she would follow an EPR process using Section 18. It is unclear what the grounds for non-compliance were but it is possible to assume that it included a failure to follow government's preferred pricing model. In terms of this new approach, the Minister determines the EPR measures for the sector, instead of the sector itself, as outlined above. To date the Minister has consulted with the relevant sectors and it is anticipated that a notice in terms of Section 18 will be issued for public comment shortly.

4.3 Trade and transport

There are no dedicated regulations for the import and export of plastics specifically. Import duties are however generally payable for "Plastics and articles thereof" as listed in Chapter 39 of the schedule to the Customs and Excise Act.⁶⁷ This Act also requires a permit for the import of plastic "waste" (for example baled PET bottles). In terms of Section 6 of the said International Trade Administration Act 71 of 2002, a permit from the International Trade Administration Commission is required for the import of waste, which permit is granted in consultation with the domestic plastic waste industry. Only wastes from the Southern African Development Community are accepted, subject to certain parameters. In relation to wastes from other countries, only wastes which are not locally available are permitted, but in limited quantities. The Minister of Environment, Forestry and Fisheries has also published Regulations Regarding the Control of the Import and Export of Waste, although these have not been brought into effect.⁶⁸ In relation to transport generally, plastic product wastes are treated similarly to general or domestic waste under South Africa's waste transport laws and would be subject to the same waste transport duties, such as the duty to avoid spillages and ensure authorised disposal.⁶⁹

4.4 Retail and consumer use

As set out in the preceding paragraphs, the Plastic Bag Regulations also impose a prohibition on the "...trade and commercial distribution of domestically produced and imported plastic carrier bags" below 24 microns, i.e. not only is the production of bags below this thickness banned, but their retail is also prohibited.⁷⁰ There are currently no taxes or fiscal incentives imposed at a retail or consumer level in relation to plastic products. Retailers do, however, pass on the cost of the "retailer levy" for plastic bags which they undertook to charge in the MoA discussed above. Further, members of PROs for the plastics industry also pay what is presently a voluntary levy to the PRO to undertake recycling consumer awareness campaigns

⁶⁶ Withdrawal of Section 28 Notice Calling for Paper and Packing Industry, Electrical and Electronic Industry, and Lighting Industry Waste Management Plans in terms of Section 28 of the National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act) in GN No. 1659 of 13 December 2019.

⁶⁷ Customs and Excise Act No. 91 of 1964 (Act No. 91 of 1964).

⁶⁸ See GN No. 22 of 21 January 2019.

⁶⁹ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 25. It imposes general duties on persons transporting waste.

⁷⁰ GNR.625 of 9 May 2003: Plastic carrier bags and plastic flat bags. Regulation 2.

and other educational activities. PlasticsSA for example, also hosted various plastic waste clean-up, preventative and educational projects, including implementation of the “Operation Clean Sweep” initiative, which seeks to ensure zero plastic pellet, flake or powder loss at plastics manufacturing facilities in South Africa.⁷¹ By way of further example, PETCO, a PET plastic PRO, supports community projects, and also prints publications and uses broadcasts and digital media to increase consumer awareness.⁷²

4.5 End of life

4.5.1 Municipal functions

As noted earlier, Municipalities regulate littering, refuse collection and disposal through local bylaws. The NWMS⁷³ also directs Municipalities to take various actions in relation to recycling and requires all Municipalities, as far as is reasonably possible, to provide containers or receptacles for the collection of recyclable waste that are accessible to the public.⁷⁴ Municipal Waste Management Plans must also set recycling targets. In addition, the Minister also prescribed National Domestic Waste Collection Standards in 2011,⁷⁵ to ensure a basic level of service provision and equitable waste collection services from households. The Standards provide that ‘separation at source must be encouraged in line with the relevant [Industry Waste Management Plans]’ and that ‘domestic waste must be separated at source (households) in Metropolitan and secondary cities’.⁷⁶ The Standards require Municipalities to provide an enabling environment for households to recycle domestic waste, such as kerbside collection or drop off centers within easy reach. Where the Municipality does not provide kerbside collection, it must cooperate with the recycling sector to create drop off facilities for collection by the recycling sector. The Standards make express provision for plastics (together with ‘mainstream recyclables’) to either be collected at households or from communal collection points by the Municipality or service providers.⁷⁷ This requirement is subject to the recognition that the nature of minimum service levels may differ between remote rural areas, medium density settlements and high density settlements.⁷⁸

4.5.2 Waste management duties

The Waste Act and its regulations are replete with general and specific duties regarding waste management, disposal, recycling, recovery and storage. These are detailed in the accompanying Matrix, with notable provisions including a duty on all persons who are “holders” of waste to ensure that, where waste must be disposed of, it is treated and disposed of in an environmentally sound manner; that waste is managed in a way that does not endanger health or the environment or cause a nuisance; and a duty to prevent the waste from being used for

⁷¹ See PlasticsSA “PlasticsSA hosts Four Clean up Projects” (2019), available at: <https://www.plasticsinfo.co.za/2019/09/04/plastics-sa-hosts-four-clean-up-projects/>

⁷² See PETCO. *Consumer Awareness*. Available at <https://petco.co.za/consumer-awareness/> (accessed 13 March 2020).

⁷³ Department of Environmental Affairs (2012) *National Waste Management Strategy*. A draft update to the Strategy was published for public comment on 3 December 2019. Although itself not a legal instrument, the Waste Act provides that the NWMS binds all organs of state in all spheres of government, to the extent applicable, and its provisions must be effected in the exercise of public powers (Section 6(4) and (5) of the Waste Act).

⁷⁴ *Ibid.* Goals 1 to 6.

⁷⁵ GN No. 21 of 21 January 2011: Domestic Waste Collection Standards.

⁷⁶ *Ibid.* Para. 4.1.

⁷⁷ *Ibid.* Para. 4.2.

⁷⁸ See *Ibid.* Para. 3 which allows for on-site supervised disposal; community transfer to central collection points and organised transfer to collection points/kerbside collection respectively.

an unauthorised purpose.⁷⁹ Dedicated regulations regarding the classification, management and disposal of waste, including landfill design have also been published together with waste information reporting regulations.⁸⁰ Together they serve an important function in providing information on the volumes and nature of wastes and procedures applicable to generation, handling, transport and disposal of waste across the country.

4.5.3 Licensing

The undertaking of certain activities such as recycling or waste disposal facilities above a particular size also triggers the need for a licence under the Waste Act. Whether or not a licence is required is typically determined by the size of the activity or facility. Activities such as recycling and the recovery of waste, waste treatment, and disposal require such a licence if they meet the relevant capacity or volumetric thresholds, small scale activities which do not meet these thresholds do not however require a licence. The licencing requirement typically requires an applicant to undertake a simplified or more elaborated form of an environmental impact assessment and pay application fees. Typically such licences are issued with a series of conditions attached to them, which relate to infrastructure design and impact management, which in turn will have economic implications for the licence holder to implement. Persons who store general and hazardous waste storage in large volumes are also required to comply with the relevant norms and standards for the storage of waste.⁸¹

5 Gaps and challenges

South Africa's waste management and pollution control laws are relatively comprehensive, and the elaborate scheme of regulations which have been published thereunder has led to a criticism of over-regulation as opposed to a lack thereof at a national level. This is particularly relevant in the licencing regime where many waste related activities such as recycling centres require a licence. The removal of licence requirements for medium scale recycling and transfer facilities and/or their replacement with general norms and standards for such facilities, would, for example, foster the roll out of this type of infrastructure. In terms of adding to or substantively amending national laws, there are small areas for improvement and refinement within the existing legal regime, such as the Plastic Bag Regulations, however, as a general premise, the national government has a diverse, comprehensive and relatively creative suite of legal instruments available with which to regulate plastics throughout their lifecycle. The more pressing challenge remains one of implementation.

At a Municipal level, suggestions have been made on the need for the development of local bylaws to facilitate recycling measures, however as discussed below, there are concerns about the feasibility of implementing such bylaws, should they be developed. As such, the primary concern with regard to plastics regulation is more of implementation and less so for legal development. Implementation is delayed or absent in multiple areas and structural barriers and policy uncertainty (for example on the future regulation of single use plastics) are consistently cited as a barrier. Key issues in this regard include Municipal service delivery, gaps in information, criticism of the plastic bag policy, and the delay in implementing EPR measures, as summarised below:

⁷⁹ National Environmental Management: Waste Act (Act No. 59 of 2008) (Waste Act). Section 16.

⁸⁰ See GNR No. 634 and No. 636 of 23 August 2013 and GNR No. 625 of 13 August 2012: National Waste Information Regulations.

⁸¹ See GN 926 of 29 November 2013: National Norms and Standards for the Storage of Waste.

5.1 Municipal service delivery

As the analysis above suggests, many Municipalities have struggled to provide basic minimum waste services.⁸² The drivers of these challenges are diverse and complex. Many Municipalities face serious landfill space shortages, and as outlined in the introduction, the delivery of basic refuse removal services is startlingly low at 63.9%. Related to basic refuse removal, is a lack of enforcement of waste management bylaws with concomitant levels of littering and illegal dumping, as well as aging and non-compliant infrastructure. Capacity is often argued to be the main reason for these challenges, as is a lack of finances, low cost recovery rates, and low landfilling costs.⁸³ DEFF is in the process of engaging with Municipalities in order to resolve certain of these underlying causes, particularly in relation to the use of subsidies for waste management, and the formula used for the budgeting provision of Municipalities' waste and environmental functions.⁸⁴ Similarly, DEFF has a National Working for the Coast Programme, which includes litter collection at beaches and waterways, which supports Municipal efforts in maintaining the coastline. DEFF has also undertaken a number of projects to understand the status quo of Municipalities (12 in total) and has developed a draft Status Quo Document for Separation at Source, however the resolution of the challenge will likely take several years.⁸⁵ The Waste Management Bureau could also play a supportive role to Municipalities in relation to the development and implementation of their Integrated Waste Management Plans. In relation to recycling specifically, the packaging industry has cited the need not only for improved service delivery by Municipalities, but also for dedicated bylaws within them that require households to separate recyclable materials, to ensure that recyclables are not contaminated with other wastes.⁸⁶ The lack of such bylaws, it is claimed, makes recycling efforts by PROs more inefficient, expensive and cumbersome to implement. A further hurdle is that many waste bylaws assignment of ownership of the waste to Municipalities, requiring the existence of contractual agreements to allow for the operation of private PROs to deal with the waste.

5.2 Licencing and recycling operations

Industry bodies and Municipalities have also called for a relaxation of the licencing requirements for recycling facilities. For instance these licencing requirements can be costly and time consuming to obtain thereby delaying or hindering the implementation of recycling

⁸² See Department of Environmental Affairs (2018) *State of Waste Report* (draft). It is stated there is a lack of service delivery particularly in rural and peri-urban areas. See also the reported figures by Statistics SA on the extent of basic service delivery, Statistics South Africa (2017). *The state of basic service delivery in South Africa: in-depth analysis of the Community Survey 2016 Data Report 03-01-22*. .

⁸³ See Godfrey, L. and Oelofse, S. (2017). Historical Review of Waste Management and Recycling in South Africa. *Resources* 6:5; Department of Environmental Affairs (2018) *State of Waste Report* (draft).

⁸⁴ Parliamentary Portfolio Committee on Environmental Affairs (15 August 2018). *Meeting Minutes: Plastics environmental impact & possible ban*. Available at <https://pmg.org.za/committee-meeting/26836/> (accessed 19 May 2019).

⁸⁵ Packaging SA (2018). Extended Producer Responsibility Plan Volume 1 (draft). Packaging SA has proposed a Municipal Fund which could assist in implementing this programme.

⁸⁶ *Ibid*.

initiatives. Income tax incentives already exist for the development of recycling facilities, and relaxing licencing requirements would further incentivise their development.⁸⁷

5.3 Information

There is a need across the continent to better understand the dynamics of waste, align methodologies, as well as a need for geographically relevant studies which assess the drivers, sources and pathways of marine debris.⁸⁸ South Africa is no exception and the determination of the extent, distribution and impacts of plastic waste on land, freshwater resources and the coast remains a knowledge gap, although more recent studies are starting to reduce it.⁸⁹ Specifically, Ryan has recently concluded that “we need a better understanding of the origins, transport and fates of macroplastics” in South Africa, both in relation to land and ocean based sources, with the biggest knowledge gap pertaining to estimates of land-based plastics entering the sea.⁹⁰ Over years, there have been various individual and group led efforts to collect data and collate information in relation to marine plastic pollution, the most recent of which includes DEFF’s Source to Sea Initiative, as well as the MFA. Exploratory research is also underway by various institutions and organisations.⁹¹ The lack of such knowledge or may complicate the setting of priorities (or at least such priorities remain open to question), and difficult to deploy related strategies.⁹² This should not serve as a means to delay action, there are certainly known drivers such as Municipal service delivery and poor levels of statutory and bylaw compliance, coupled with low levels of recycling, which are drivers of plastic pollution, however improved knowledge relating to sources and transport models will certainly assist in designing more targeted policies and programmes. A well designed monitoring and data collection system can also serve as a baseline for testing the effectiveness of existing policies, strategies and programmes and for reporting on the impact of current and new legal instruments (for example bans or other control provisions) if and when they come into effect.⁹³ The legal provisions relating to government’s data collection protocol and monitoring of coastal pollution, in particular plastic pollution, would also benefit from amplification and development, particularly the National Coastal Management Programme.⁹⁴

Not only is information on impacts lacking but information regarding the volumes of plastic products and related wastes is also a challenge. As the MFA observed, whilst the online South African Waste Information System is populated to some degree, it does not provide comprehensive information on waste flows, as only a proportion of active and formal waste

⁸⁷ Income Tax Act (Act No. 59 of 1962). Section 37B providing that persons who install or establish an environmental treatment and recycling asset are eligible for an income tax deduction, in relation to the cost of that asset.

⁸⁸ Jambeck *et al.* (2018) Challenges and emerging solutions to the land-based plastic waste issue in Africa. *Marine Policy* 93. p.256.

⁸⁹ See Ryan PG (2020). The transport and fate of marine plastics in South Africa and adjacent oceans. *South African Journal of Science* 116 (5/6); and Ryan PG (2020). Monitoring Marine Plastics: Will we know if we are making a difference *South African Journal of Science* 116 (5/6).

⁹⁰ Ryan PG (2020). The transport and fate of marine plastics in South Africa and adjacent oceans. *South African Journal of Science* 116 (5/6).

⁹¹ Including the African Marine Waste Network and National Pollution Laboratory at Walter Sisulu University.

⁹² Jambeck *et al.* (2018) Challenges and emerging solutions to the land-based plastic waste issue in Africa. *Marine Policy* 93.

⁹³ *Ibid.*

⁹⁴ Department of Environmental Affairs (2014). National Coastal Management Programme. Annexure E. Whilst “Marine Litter” is included in the list but not the specific issue of marine plastics, nor the issue of micro-plastics or abandoned, lost or otherwise discarded fishing gear.

management facilities are reporting data.⁹⁵ Better implementation and enforcement of the reporting regulations is required in order to facilitate an improved understanding of waste flows and characterizations.

5.4 Plastic bags

According to media reports, approximately ZAR 1.8bn has been raised as a result of the levy but only ZAR 919.6m has been allocated to recycling projects.⁹⁶ This issue underpins the first and possibly the primary criticism against the regulation and ultimately the implementation of the Plastic Bag Levy, namely the failure to adequately ‘recycle’ the revenue, in a fiscal sense, i.e. to apply it to dedicated environmental purposes. Questions also arise as to the deterrent effect of the levy. Plastic bag use is still widespread. Initially there was an 80% reduction in the use of plastic bags, attributable to the additional charges paid by consumers.⁹⁷ However, following the price reduction of the retail charge to consumers in 2003, plastic bag consumption rose to 30% of the original production capacity, which has been attributed to consumer price inelasticity, the affordable price, convenience, and easy availability.⁹⁸ At present, the government is reviewing the effectiveness of its approach to the regulation of plastic bags, including their potential ban.⁹⁹ In recent reports to Parliament, DEFF has indicated that it is exploring options for the better management of plastic bags including exclusive promotion to certified alternatives (e.g. biodegradable bags), or, as an alternative, to continue with the status quo but increase the plastic bag levy.¹⁰⁰

5.5 Extended Producer Responsibility

As is evident from the analysis, South Africa has a comprehensive legislative regime designed to impose EPR through multiple avenues. Implementation, however, remains at an early stage and has been beset by delays. To date, voluntary EPR measures have primarily been undertaken by PROs in the plastic industry, in the absence of any government implementation of the empowering laws. Whilst bans and the determination of “priority wastes” have been mooted for some products, there have not yet been any draft notices pertaining to such bans or other controls for public comment, nor does it appear that a formal policy decision has been taken on this issue.¹⁰¹ The perceived reticence to do so may be related to sensitivity of the current state of the South African economy and employment rate and concerns relating to potential negative impacts that government-led regulation and product specifications may

⁹⁵ Department of Environmental Affairs (2017). *Plastics material flow and end of life management in South Africa* (report not released for public comment yet) (MFA). p.63.

⁹⁶ Rodgers, G. (19 March 2018). “Only Half of Plastic Bag Levy has Gone to Support Recycling”. *Business Day*.

⁹⁷ Hasson, R., Leiman, A. and Visser, M. (2007). The Economics of Plastic Bag Legislation in South Africa. *South African Journal of Economics* 75(1):66.

⁹⁸ O’Brien, J. and Thondhlana, G. (2019). Plastic bag use in South Africa: Perceptions, practices and potential intervention strategies. *Waste Management* 84:320-328. p.320. See also Dikgang, J. et al. (2012). Analysis of the Plastic Bag Levy in South Africa. *Resources, Conservation and Recycling* 66:59-65, arguing that demand was initially characterised by price elasticity followed by price inelasticity in the long run (contrary to traditional models where it is usually the other way around). They argue that this may be explained by the relatively low prices in comparison to consumers’ disposable income, even by the standards of the poor. The fact that the bags were made more durable was also thought to make up for their higher price.

⁹⁹ Parliamentary Portfolio Committee on Environmental Affairs (15 August 2018). *Meeting Minutes: Plastics environmental impact & possible ban*. Available at <https://pmg.org.za/committee-meeting/26836/> (accessed 19 May 2019).

¹⁰⁰ Parliamentary Portfolio Committee on Environmental Affairs (27 February 2019). *Meeting Minutes: Single use plastics ban*. Available at <https://pmg.org.za/committee-meeting/27987/> (accessed 19 May 2019). Government is also considering the minimum recycle content requirement for garbage bags and bin liners.

¹⁰¹ Any such steps would, of course, also need to take into account alternatives to the banned or controlled product, and this would depend on consideration of numerous factors, including their market availability.

have. Further, save for the plastic bag regulations, the Minister has yet to specify any minimum content on the recycled content of plastic products.¹⁰² Not only will this reduce the environmental impact but it will help foster an increased demand for plastic recycle, an issue which DEFF and industry have both identified as being problematic for certain sectors of the plastics industry.¹⁰³ In relation to Industry Waste Management Plans, it is unfortunate that approximately two years passed before a decision was taken not to approve them. The pursuit of new and alternative EPR measures for the plastics sector seems likely, however neither the nature nor the justifiability of such alternative measures is clear, in the absence of detailed reasons for the refusal of the draft plans. Pursuing alternative measures will also exacerbate the existing delay.

5.6 Policy coherence and cooperative governance

It is an often repeated refrain that South Africa's environmental laws and policy lack coherence and alignment and that this fragmentation and occasional policy conflict is a major hindrance for effective implementation.¹⁰⁴ The misalignment is exacerbated by the multitude of state actors responsible for implementation, heightening the imperative for co-operative government. Similarly, compliance and enforcement remain challenging between organs of state as a result of the Constitutional imperative for co-operative government.¹⁰⁵

Policy ambition and direction is also lacking, and national targets in relation to plastics have yet to be determined. The existing targets for recycling generally under the NWMS have not been met and government is in the process of re-articulating these targets. Similarly, Plastics SA has expressed its own relatively ambitious target of Zero (plastic) Waste to landfill by 2030 but this target is not articulated in its (now unapproved) Industry Waste Management Plan. The revised should NWMS, when it is finalised, should require ambitious plastic targets to guide a nation-wide policy response, with an associated implementation plan that ensures the achievement of this response across all relevant sectors. Further, policy consistency is required in relation to EPR measures under the Waste Act. Industry has also claimed that government has historically been equivocal upon whether it intends to ban single use plastics.¹⁰⁶ Following the refusal by the Minister to approve the draft Industry Waste Management Plans, the finalisation and implementation of the Proposed Section 18 Waste Act EPR plans as an alternative measure needs to be prioritised in order to ensure policy certainty. Further, a combination of top-down goal setting and bottom-up implementation strategies should be accompanied by capacity building initiatives, including a knowledge exchange framework and a funding mechanism to improve waste collection systems and encourage infrastructure improvements as well as technological innovation.

¹⁰² The Specifications under the Plastic Bag Regulations (SANS 695:2011) specify minimum recycled content for garbage bags and bin liners.

¹⁰³ Department of Environmental Affairs (2017). *Plastics material flow and end of life management in South Africa* (report not released for public comment yet) (MFA).

¹⁰⁴ See for example Kotze, L. (2015). 'The Regulation of Environmental Pollution', in Du Plessis, A. (ed) (2015) *Environmental Law and Local Government in South Africa*. p.241.

¹⁰⁵ Constitution of South Africa, 1996. Section 41.

¹⁰⁶ Comments made at the MARPLASTICCS Workshop on 16 January 2019.



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