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**SECTORAL COORDINATION IN KENYA'S MUNICIPAL SOLID WASTE
MANAGEMENT: A HORIZONTAL ASSESSMENT**

Wambua Kituku, Collins Odote, Charles Okidi & Patricia Kameri-Mbote

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1

INTRODUCTION

Like most African countries, Kenya is faced with an intractable municipal solid waste problem, evidenced by growing rates of waste generation and challenges of effective collection, treatment and disposal of the same.¹ In Nairobi City for instance, waste generation is estimated to have risen from 1530MT per day in 2002² to 2600MT in 2015,³ with close to 50 per cent of the waste left uncollected by local authorities. Out of the waste collected in Nairobi, only an estimated 33 percent is tipped at the official (Dandora) dumpsite in the eastern outskirts of the city, while the rest is disposed in hundreds of illegal dumpsites across the city.⁴ Even though 95 per cent of solid waste collected in Nairobi is deemed to be re-useable, only about 5-10 per cent is recycled or composited, predominantly by informal waste actors.⁵

It is estimated that only 40 per cent of urban residents access waste collection services currently provided largely by County authorities, despite the fact that private sector and community groups, especially in the major cities of Nairobi, Mombasa and Kisumu, require these services.⁶ However, coverage in poor neighbourhoods

is rather low and collection fees considered unaffordable for most, yet 40 per cent of the urban population resides in such areas.⁷ Environmental and health impacts resulting from poor municipal solid waste management (MSWM) are indeed profound as a recent study reveals that 28 per cent and 14 per cent of households in Nairobi and Mombasa respectively reported health problems associated with poor waste management.⁸

Weak organisational capacities (financial, personnel, technological) of institutions responsible for regulation and service provision is considered a major cause of poor performance of MSWM systems in urban areas in Kenya.⁹ Lack of a clear decentralised framework for MSWM undermines the efficacy of county authorities in discharging their mandates at the local level.¹⁰ Political interference and low prioritisation of MSWM in county budget-making processes undermine capacities of County governments to discharge their

1 UNEP, *Africa Waste Management Outlook* (UNEP 2018) 9.

2 UNEP, *Kenya: Atlas of Our Changing Environment* (UNEP 2009) 156.

3 NEMA, *National Solid Waste Management Strategy* (NEMA 2015).

4 Ministry of Environment & Natural Resources & UNDP, *Nationally Appropriate Mitigation Action on A Circular Economy Solid Waste Management Approach for Urban Areas in Kenya* (Ministry of Environment & Natural Resources 2016).

5 Nairobi City County Government, 'County Annual Development Plan (CADP) 2018/2019' (Nairobi City County, 2017) 55.

6 Ministry of Environment and Forestry, 'National Sustainable Waste Management Policy- Revised Draft, 24 April 2019' <http://www.environment.go.ke/wp-content/uploads/2019/04/Revised_National_Waste_Policy_2019.pdf>.

7 Sam Waweru and Edwin Kanda, 'Municipal Solid Waste Management in Kenya: A Comparison of Middle Income and Slum Areas' (International Conference on Disaster Risk Reduction & Conflict Resolution Proceedings, Masinde Muliro University, Jul 2012) 188; the authors report that slum residents in Nairobi's Kibera slum pay for waste collection services double what their neighbours in middle income estates pay.

8 Blessing Mberu and Mwangi Chege, 'Improving Solid Waste Management Practices to Reduce Health Risks in Nairobi and Mombasa' (Urban Africa Risk Knowledge Briefing No 11 June 2018). <<https://www.alnap.org/system/files/content/resource/files/main/G04296.pdf>>.

9 See Lesley Sibanda, Nelson Obange and Frankline Awuor, 'Challenges of Solid Waste Management in Kisumu, Kenya' (2017) 28 Urban Forum 387-402; Leah Oyake-Ombis 'Awareness on Environmentally Sound Solid Waste Management by Communities and Municipalities in Kenya' (2017), A study report for Ministry of Environment and Natural Resources, UNDP and GEF <https://www.ke.undp.org/content/dam/kenya/docs/energy_and_environment/Awareness%20on%20environmentally%20Sound%20Solid%20Waste%20Management_.pdf>.

10 Tilahun Haregu, Abdhalah Ziraba and Blessing Mberu, 'Integration of Solid Waste Management Policies in Kenya: Analysis of Coherence, Gaps and Overlaps (2016) 8 Urban Africa Risk Knowledge Working Paper 3, 14.

mandates.¹¹ A recent study also found that lack of coordinated approach to policymaking as well as persistent overlaps between various laws governing wastes creates fragmentation which undermines effective MSWM in Nairobi and other urban areas.¹² The point of departure for this paper is the need to interrogate deeper the persistence of regulatory fragmentation in the MSWM and its implication of integrated and sustainable management of solid waste in urban areas of Kenya.

The problem of regulatory fragmentation and its adverse impacts on environmental sustainability is widely acknowledged.¹³ Regulatory fragmentation is said to occur when different segments of regulation are not encompassed into a broader vision for effective environmental management,¹⁴ such that regulatory strategies and instruments which address diverse environmental medium (air, water, and land), are pursued separately.¹⁵ Invariably, this leads to shift

rather than minimisation of pollution across such environmental media.¹⁶ Sectoral coordination is viewed as an antidote to regulatory fragmentation in that it uses instruments and mechanisms that induce voluntary or forced alignment of tasks and efforts of organisations within public sector, leading to greater coherence and reducing redundancies.¹⁷

In promoting sustainability, sectoral coordination is viewed as a means of incorporating environmental concerns into other policy domains, a term referred to as environmental integration.¹⁸ Environmental integration can be pursued between levels of government (vertical environmental integration) and across the same tier of government (horizontal environmental integration).¹⁹

In 1999, Kenya adopted the Environmental Management and Coordination Act (EMCA)²⁰ as the framework law which established the institutional and legal machinery for management of the environment and created a basis for coordination of sectoral environmental laws and initiatives.²¹ EMCA and its subsidiary legislation – the Environment Management and Coordination (Waste Management) Regulations,

11 Phyllis Muiruri, 'Assessment of Strategic Solid Waste Management: A Case of Selected Markets in Kiambu County' (MBA thesis, United States International University Africa, 2017) 63.

12 Haregu, Ziraba and Mberu (n 10) 1-14.

13 The United Nations, 'Report of the World Commission on Environment and Development: Our Common Future' 1987 at Chapter 12, para 11 <www.un-documents.net/our-common-future.pdf>; see also United Nations, 'Gaps in International Environmental Law and Environment-related Instruments: Towards A Global Pact for the Environment' - Report of the Secretary General, 30 November 2018 <<https://wedocs.unep.org/bitstream/handle/20.500.11822/27070/SGGaps.pdf?sequence=3&isAllowed=y>>.

14 Emmanuel Mathieu and others, 'Regulatory Agencies and Multi-actor Regulatory Governance: A Method to Study Regulatory Fragmentation, Specialisation, Coordination and Centralisation' (EPGA Study Group on Governance of Public Sector Organisations Conference, Bucharest September 2011) 11.

15 Barry Rabe and Janet Zimmerman, 'Beyond Environmental Regulatory Fragmentation: Signs of Integration in the Case of the Great Lakes Basin' (1995) 8 *Governance: An International Journal of Policy and Administration* 59.

16 John Gibson 'Integration of Pollution Control' (1991) 18 *Journal of Law and Society* 18-19.

17 Mathieu and others (n 14) 6.

18 Karl Hogl and Ralf Nordbeck, 'The Challenge of Coordination: Bridging Horizontal and Vertical Boundaries' in Karl Hogl and others (eds), *Environmental Governance: The Challenge of Legitimacy and Effectiveness* (Edward Elgar 2012) 112.

19 William Lafferty and Eivind Hovden, 'Environmental Policy Integration: Towards an Analytical Framework' (2003) 12 *Environmental Politics* 14-17.

20 Cap 387 of Laws of Kenya.

21 Anne Angwenyi, 'An Overview of the Environmental Management and Coordination Act'; Charles Okidi, Patricia Kameri-Mbote and Migai Akech (eds), *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008); the author notes that Prior to EMCA, Kenya's environmental management legal framework was also characterised by incoherence and disjointed implementation of at least 77 sectoral laws of colonial origin.

2006²² currently provide the preeminent legal framework for MSWM at national level. EMCA created the National Environment Management Authority (NEMA) as the primary enforcement agency with the mandate to coordinate sectoral lead agencies and to promote integration of environmental considerations in policymaking and implementation.²³ NEMA is also the primate MSWM regulator at the national level as well.

The Constitution of Kenya 2010 devolved waste management functions to counties, thus empowering new county governments to make laws and policies on MSWM; something which hitherto was the preserve of central government.²⁴ This also ushered a new era of inter-governmental relations, characterised by constitutional distinctiveness of the two levels of government within a framework of cooperative governance. Thus two levels of sectoral coordination in MSWM now operate concurrently, with both NEMA and county governments as the central actors increasing the risk of persistence of fragmentation.

This paper therefore seeks to analyse sectoral coordination in MSWM and its implication for achieving horizontal environmental integration, an area that has hitherto attracted limited academic interest. The paper contends that even though NEMA and county governments are invested with significant authority and power to pursue sectoral coordination in MSWM, this has not translated into effective horizontal environmental integration of the sector and has consequently undermined integrated and sustainable approaches to addressing the waste problem in urban areas. Using findings from a survey study conducted as part of a doctoral research²⁵

targeting firms registered as workplaces²⁶ in the Nairobi metropolitan area, this paper explores the reasons why horizontal environmental integration has yet to be achieved. Intergovernmental coordination between national and county governments and therefore vertical environmental integration in MSWM is a rather broad, nonetheless related, area of inquiry with intricate co-ordinational issues and arguments that cannot be tackled adequately in this paper without distending its scope. Thus, the findings contained in this paper are limited to intra-governmental co-ordinational issues at the respective levels of governance in Kenya

2 CONCEPT OF HORIZONTAL ENVIRONMENTAL INTEGRATION AND ITS IMPLICATION FOR SECTORAL COORDINATION IN MSWM

The UN Conference on Environment and Development held in Rio de Janeiro (Rio Conference) in 1992 adopted the principle of integration that exhorted states to ensure environmental protection considerations were integral to the development process for the realisation of sustainable development.²⁷ Subsequently, the concept of environmental integration emerged which entails the incorporation of environmental considerations into cognitive systems, policies and institutions with the aim of resolving and preventing environmental problems.²⁸ Though empirical link between

22 See also (EMCA Waste Regulations, 2006), Legal Notice 121 of 2006.

23 Cap 387, S.9.

24 Constitution of Kenya, 2010 Fourth Schedule Part2, para2 & 3.

25 The study was conducted between August and October 2018 targeting a sample of 295 respondents from registered workplaces in Nairobi, Kajiado, Kiambu and Machakos Counties. It also included 38 key informant interviewees purposively drawn from NEMA, county governments, regulated entities and independent experts.

26 Occupational Safety and Health Act No.15 of 2007 (2012 edition): OSHA imposes obligations on registered workplaces to ensure proper waste management practices, making them subject to multiple legal regime and oversight by multiple institutions.

27 United Nations, 'Rio Declaration on the Environment and Development' 31 ILM 874 (1992), Principle 4.

28 Ton Buhrs, 'Challenging Contexts- Addressing Obstacles to Environmental Integration' (NZPSA Conference, Massey University, November- December 2015) <<https://www.researchgate.net/publication/298305299>>.

implementation of environmental integration and improvements of environmental quality is difficult to demonstrate due to research complexities involved, intermediate outcomes of improved coordination among sectoral agencies and policies as well as enhanced internalisation of environmental costs by key actors have been observed.²⁹

Horizontal environmental integration (HEI) is a level of environmental integration which targets sectors and government actors at a particular level of government. HEI is also seen as a substantive enterprise, that involves balancing of economic, social and environmental interests and policies in order to minimise trade-offs and maximise on synergies.³⁰ HEI is pursued through the use of strategic instruments (such as environmental assessments, sustainable development strategies, green budgeting & procurement) as well as coordinating structures (central coordinating agency, inter-ministerial and multi-sectoral committees).³¹ With regard to instruments, new forms of market-based and voluntary instruments which promote sectoral coordination are preferred over the command and control types.³² HEI promotes deliberative approaches involving a wide range of stakeholders in the negotiation process which encourages experimentation around means to resolve normative conflicts in environmental management.³³

MSWM presents an optimal regulatory setting for analysing HEI and sectoral coordination for various reasons. First, MSWM embodies environmental, economic and social dimensions, thus necessitating an integrated approach to its regulation.³⁴ Secondly, MSWM is characterised by institutional complexity since management of wastes typically brings together different sets of regulators to manage different aspects of the process.³⁵ For instance, there will be different regulatory authorities handling waste planning, approvals, operational management (collection, treatment & disposal), supervision, and reporting. In the Kenyan context, the Constitution,³⁶ and County Government Act³⁷ vests in county governments the power of control of pollution and other public nuisances (including those from solid wastes) EMCA vests regulatory powers in NEMA for licensing of waste transporters, incinerators and dumpsites. Other sectoral laws such as the Public Health Act,³⁸ the Physical and Land Use Planning Act,³⁹ Occupational Safety and Health Act⁴⁰ designate important regulatory functions in respective departments established by

29 Hens Runhaar, Peter Driessen and Caroline Uittenbroek, 'Towards A Systematic Framework for the Analysis of Environmental Policy Integration' (2014) 24 *Environmental Policy and Governance* 237; authors consider these outcomes as rather modest achievements of integration.

30 Reinhard Steurer and Gerald Berger, 'Horizontal Policy Integration: Concepts, Administrative Barriers and Selected Practices' (2010) *Institute of Forest, Environmental and Natural Resource Policy, Discussion Paper 4/2010*, <https://boku.ac.at/fileadmin/data/H03000/H73000/H73200/InFER_Discussion_Papers/InFER_DP_10_4_Horizontal_Policy_Integration.pdf>.

31 *ibid* 8-12.

32 Rabe and Zimmerman (n 15) 63.

33 Tony Gore, 'The Role of Policy Champions and Learning in Implementing Horizontal Environmental Policy Integration: Comparative Insights from European Structural Fund Programmers in the UK' (2014) 4 *Administrative Sciences* 308.

34 Jing Ma and Keith W Hipel, 'Exploring Social Dimensions of Municipal Solid Waste Management Around the Globe- A Systematic Literature Review' (2016) 56 *Waste Management* 3-4.

35 Matthew Watson, Harriet Bulkeley and Ray Hudson, 'Unpicking Environmental Policy Integration with Tales from Waste Management' (2008) 26(3) *Environment and Planning C: Government and Policy* 481-498.

36 Part 2 clause 3 of Fourth Schedule to the Constitution of Kenya (2010).

37 Act No 17 of 2012 (Revised edition 2017) which provides institutional anchorage for County functions relating to planning, coordination, decentralisation and service delivery for MSWM.

38 Cap 242 (2012 edition); this Act empowers the Department of Public Health (now at the County level) to regulate waste as nuisance to prevent health problems.

39 Act No 13 of 2019, which repeals Cap 286 (Revised Edition 2012)- hereinafter referred to as 'PLPA'; it vests in Director of Physical Planning and County Director for Physical Planning at both national and county levels, regulatory powers in respect to land-use and development control approvals which are connected to MSWM.

40 Act No 5 of 2007 (Revised Edition 2012) empowers the Director of Occupational Safety and Health Act to enforce waste management requirements in registered workplaces.

these laws. Effective sectoral coordination is thus necessary for realisation of HEI in this sector.

The view of waste as an economic resource with extractable value has emerged as the dominant paradigm, overshadowing the hitherto view of waste as a nuisance to be disposed (waste disposal paradigm).⁴¹ To maximise on waste resource paradigm, priority in MSWM operations is afforded to waste re-use, recycling and recovery over disposal in what is known as the waste hierarchy approach.⁴² This approach introduces new players (recycling, composting and energy actors) in the waste management sector, which hitherto was dominated by local authorities and environmental regulators (as per the waste disposal paradigm) thus creating fresh imperative for sectoral coordination.

Lastly, both national government and county governments have a shared role in defining the regulatory framework for MSWM, with national legislation outlining the environmental standards rules for procurement and financing of MSWM operations while local governments promulgate rules that guide households and other institutions on proper waste management and disposal.⁴³ In discharging these roles, both levels of government will require cooperation of various sectors at the respective levels hence underlining the need for sectoral coordination.

3 CURRENT STATUS AND CHALLENGES OF SECTORAL COORDINATION IN MSWM

3.1 Normative Anchorage for Sectoral Coordination and HEI

Sectoral coordination is anchored in the obligations arising from the constitutional right to clean and healthy environment.⁴⁴ It is a composite and judicially-enforceable entitlement, which includes a right to have the environment protected for the benefit of present and future generations through legislative and other measures, contemplated in provisions outlining environmental duties of the State and non-state actors.⁴⁵ One such obligation is the duty imposed on every person to cooperate with State organs and other persons in protection and conservation of the environment to ensure ecologically sustainable development.⁴⁶ It has been pointed out that the use of the term 'person' in this context means that the obligation to cooperate is not limited to natural persons but also extends to body of persons whether unincorporated or incorporated, including state agencies.⁴⁷ Thus, the obligation to cooperate lays foundation for cooperative environmental governance, upon which sectoral coordination is made feasible.⁴⁸ The EMCA has similar provisions upholding the right

41 Watson, Bulkeley & Hudson (n 35) 481-498.

42 *ibid.*

43 Silpa Kaza and others, 'What A Waste 2.0: A Global Snapshot of Solid Waste Management to 2050' (World Bank Group 2018) 89.

44 Constitution of Kenya, Art 42.

45 These duties are listed under Article 69 and extend to non-state actors as well.

46 Constitution of Kenya 2010, Art 69 (2).

47 Robert Kibugi, 'Governing Land Use in Kenya: From Sectoral Fragmentation to Sustainable Integration of Law and Policy' (Doctor of Law Thesis, University of Ottawa, 2011) 89.

48 See Robert Kibugi, 'Development and Balancing of Interest in Kenya' in Michael Faure and Willemien du Plessis (eds), *The Balancing of Interests in Environmental Law in Africa* (Pretoria University Law Press 2011) 171-174.

to clean and healthy environment and principles of sustainable development.⁴⁹

Anchorage for sectoral coordination also stems from the constitutional enshrinement of sustainable development as a principle of governance⁵⁰ and therefore binding upon the State in development, implementation and interpretation of legal and policy frameworks and actions.⁵¹ This principle is adjudged to impose positive obligations on public authorities to take measures to protect the environment, including adopting policy and legislative frameworks as well as coordination mechanisms to ensure sustainable management of resources.⁵² Application of the principle within the context of natural resources management requires balancing of various interests (public, private, international) to safeguard the public interest, in line with the transformative nature of the Constitution of Kenya.⁵³

There is widespread awareness on the existence of the right to clean and healthy environment, considering that a large majority (87 per cent) respondents in survey

agreed that the right was engraved in the Constitution. There is also near-universal agreement (97 per cent) among survey respondents that citizens have a legal right to clean and healthy environment free from solid wastes. The reported perceptions are indeed consistent with emerging jurisprudence on this matter as expressed in the case *ACRAG & 3 others v Municipal Council of Naivasha*⁵⁴ where the Court held that poor waste management and the attendant risks to human and environmental health constitute an infringement of the constitutional right to clean and healthy environment.

A majority (79 per cent) of respondents also agreed that both state and non-state actors have a duty to promote this right. A lower majority (49 per cent and 55 per cent respectively), however, agreed with the proposition that national and county authorities take seriously their respective duties to promote the right. Whereas a majority (60 per cent) are aware of constitutional enshrinement of sustainable development, few (30 per cent) agree that the principle is taken seriously in Kenya. Indeed, Kenya is ranked 123 out of 180 countries surveyed in the 2016 Yale's World Environment Performance Index (EPI).⁵⁵ Thus, the perception that duty bearers are not doing enough to promote environmental rights and sustainable development has empirical backing.

Adverse ratings of authorities on promotion of sustainability and right to clean and healthy environment may undermine credibility and consequently the willingness of other stakeholders to effectively cooperate and engage with them in MSWM for effective horizontal environmental integration. Several factors may explain the adverse perceptions on the actual implementation of right to clean and healthy

49 EMCA Cap 387, Sec 3.

50 CoK (2010) Art 10 (2) (e); other principles include public participation, human rights, transparency, accountability, good governance, integrity, rule of law, devolution of power, inclusiveness, patriotism, national unity, social justice and equity.

51 In the *Center Trust & Others v the AG* (2012) eKLR (also cited as Petition No 243 of 2011), the High Court held that Article 10 Principles were not simply hortatory in their effect but that policymakers and legislators were duty-bound to consider them when discharging their respective mandates.

52 *Abdalla Rhova Hiribae & 3 others v Attorney General & 7 others* (2013) eKLR also cited as High Court (Nairobi) Civil Case No 14 of 2010.

53 See *Communication Commission of Kenya & 5 others v Royal Media Services Ltd & 5 others* (2014) eKLR also cited as Petition No 14, 14A, 14B & 14C of 2014 (Consolidated) Supreme Court of Kenya, para 366-391; The Supreme Court of Kenya extensively discussed the substance of sustainable development as one of the Article 10 values and its application in managing electromagnetic spectrum for radio and television broadcast as a natural resource. The Court held that public participation was critical for realisation of sustainable development by safeguarding public institutions from private capture when making public policy decisions.

54 (2017) eKLR also cited as Petition No 50 of 2012, ELC (Nakuru).

55 See A Hsu and others, *Environmental Performance Index* (Yale University 2016) <http://epi2016.yale.edu/sites/default/files/2016EPI_Full_Report_opt.pdf>; the EPI ranks countries' performance on high priority environmental issues related to protection of human health and ecosystems, using a framework of more than 20 indicators.

environment and the principle of sustainable development.

First, constraints in institutional capacity of national authorities as well as county governments (that are addressed in the next sections of this article) largely explain why the environmental right and duty as well as sustainable development are not effectively promoted in Kenya.

Secondly, there appears to be waning political will for promotion of sustainability generally and in waste management specifically at both national and county government levels. In the survey, 39 per cent of respondents agreed with the proposition that the President is committed to addressing MSWM challenges, hence pointing to low perceptions on the existence of political will on this matter. At the County level, 49 per cent and 16 per cent of respondents felt that County governors and Members of County Assembly in the target counties were respectively committed to addressing problems in the MSWM sector. In the four target counties, only Nairobi has enacted a solid waste management law. Thus, the slow pace of legislative development demonstrates limited political will towards addressing MSWM issues. Political will and enabling leadership are key factors for the promotion of environmental integration.⁵⁶ Since environmental integration is anchored in a political system, political will must be harnessed, organised and maintained to realise success.⁵⁷ For instance, it has been observed that when the UK's Labour Party took over power in the 1990s on a broad social reform platform (which included a progressive green agenda), it facilitated extensive cross-sectoral coordination hitherto witnessed under the mantra of 'joined-up government'.⁵⁸

Thirdly, there is limited adoption and support for the waste hierarchy approach in MSWM normative framework which is not only critical for realisation of sustainability, but also imposes imperatives for sectoral coordination.⁵⁹ Under the Basel Convention,⁶⁰ Stockholm Convention on Persistent Organic Pollutants⁶¹ and UN Sustainable Development Goals,⁶² Kenya is under obligation to embrace the waste hierarchy.

The waste hierarchy approach prioritises recovery of resource value from wastes over disposal and therefore to segregation of wastes is considered as the first step towards facilitating such recovery. There is relatively high level of awareness on the existence of the legal duty to segregate wastes at the firm level (81 per cent) but in contrast relatively lower level of satisfaction with actual segregation of waste (55 per cent). Thus, high levels of awareness of this duty does not translate into commensurate perceptions of compliance hence plausible gaps in enforcement. The study revealed high levels of satisfaction by respondents with collection (83 per cent) and transportation of wastes (71 per cent), but lower levels were recorded in recycling (28 per cent) and sound management of dumpsites (26 per cent). In addition, only a minority feel that County governments are doing enough to promote recycling (14 per cent) and composting (18 per cent).

These perceptions underline the preponderance of the waste disposal paradigm, in which authorities pay more

⁵⁹ *ibid.*

⁶⁰ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 22 March 1989, 1673 UNTS 57, Art 4 (2).

⁶¹ Stockholm Convention on Persistent Organic Pollutants, Stockholm, 23 May 2001, 2256 UNTS 119, Part V of Annex C of the Convention on 'General guidance on best available techniques and best environmental practices'.

⁶² Sustainable Development Goals and Targets, in UN General Assembly Resolution 70/1, Transforming our World: The 2030 Agenda for Sustainable Development, UN Doc. A/RES/70/1 (2015), Goal 12 on Sustainable Consumption and Production Patterns and Target 12.5 which that by 2030, states will achieve substantial reductions of waste generated through prevention, reduction, recycling and use.

⁵⁶ Andrew Jordan and Andrea Lenschow, 'Environmental Policy Integration: A State of the Art Review' (2010) 20 *Environmental Policy and Governance* 150-152.

⁵⁷ *ibid.* 150.

⁵⁸ Watson, Bulkeley and Hudson (n 35) 484-5.

attention and investment in collection and tipping of waste in dumpsites, rather than facilitate efficient value recovery. Dissatisfaction by firms with recycling is also consistent with the actual low waste recycling rates prevailing in Nairobi and this perhaps signifies limited support for the critical recycling and re-use elements of the waste hierarchy in the target sites. The upshot is that with an under-developed potential for recycling and recovery, there is limited impulsion towards sectoral coordination of economic actors associated with the waste hierarchy approach to MSWM.

These perceptions and the prevailing reality may be attributed to the fact that, EMCA and other key laws on MSWM do not have clear expressions of the provisions of the waste hierarchy. The EMCA Waste Regulations of 2006 requires waste actors to embrace clean production technology in order to minimise waste generation.⁶³ The regulation however scarcely provides for other equally important components of the waste hierarchy—re-use, recycling and recovery.

Additionally, waste authorities in Nairobi do not have a structured means/mode/manner of engaging with waste actors over policy and operational issues. Even though these actors have organised themselves into a waste management association, contacts with the County authorities besides licensing are minimal and often characterised by incessant litigation.⁶⁴ Informal waste actors and pickers who largely prop the recycling industries of Nairobi are side lined from the policy-making processes. Moreover, the County authorities have not put in place necessary incentives for promoting waste value recovery. Instead, disincentives persist, such

as taxation of waste materials recovered from primary production processes for re-use in making secondary materials⁶⁵ as well as prohibitions on composting domestic waste at household level.⁶⁶

3.2 Efficacy of NEMA and County Governments in Sectoral Coordination

NEMA is established as a national regulatory agency under the direct control of the National government, rather than an independent regulator.⁶⁷ Regulatory functions of NEMA in MSWM include issuing licenses to waste transporters, operators of waste sites and plants involved in treatment, re-use and recycling.⁶⁸ EMCA also empowers NEMA to halt waste management operations by obtaining a court order against the licensee accused of breaches.⁶⁹ To complement its regulatory authority, NEMA is vested with broad enforcement powers in appointing environmental inspectors to monitor compliance with environmental standards, activities of sector-specific inspectorates and undertake environmental audits.⁷⁰ NEMA has general oversight powers over waste authorities designated as lead agencies, which include taking over neglected functions and performing them at the expense of a particular authority.⁷¹

65 Interview with Georgina Wachuka, Policy Officer, Kenya Manufacturers Association (Nairobi, 21 September 2018); Ms Wachuka opined that plastic manufacturers were most affected by the form of 'double taxation' because their manufacturing processes invariably result in defects which have to be utilised in production of secondary material.

66 Interview with Agatha Kagia, Coordinator, Runda Residents Association (Nairobi, 26 September 2018); Ms Kagia explained that such prohibitions deny households the opportunity to produce compost for beautification of their neighbourhoods.

67 EMCA, Sec 7 & 10; The President appoints the Chairperson of the Board of NEMA, while the Cabinet Secretary for Environment appoints the Director-General and other members. Principal Secretaries for environment and finance as well as the Attorney General are ex-officio members.

68 Sec 88, EMCA.

69 Sec 90, EMCA.

70 EMCA Sec 117; inspectors can exercise police powers of entry, search, seizure and arrests under warrants; order closure of deleterious activities; issue notice of improvement and; conduct prosecutions subject to directions of Office of Director of Public Prosecutions.

71 EMCA Sec 12.

63 The Environmental Management and Coordination (Waste Management) Regulations, 2006 (EMCA Waste Regulations of 2006); Regulation 5.

64 Interview with Edwin Murimi, Assistant Director, Environment Department (Solid Waste Management Section) Nairobi City County Government (Nairobi, 20 September 2018).

NEMA is vested with a general duty to coordinate environmental management activities carried out by lead agencies and this provides statutory basis for exercise of sectoral coordination vis-à-vis lead agencies including waste management authorities.⁷² In addition, NEMA is mandated to render technical support and promoting cooperation among lead agencies, particular on environmental education, public awareness and participation.⁷³

There is evidence to suggest that NEMA enjoys near-universal recognition of its primacy in environmental protection and promotion of sustainable development, with 86 per cent of surveyed firms agreeing with that proposition. However, NEMA's rating on other key regulatory and enforcement functions appear to decline as evidenced by the survey results below:

Issue/Proposition	Level of agreement (%)
NEMA adequately plays its role in environmental protection in Kenya	54
Under extreme circumstances, NEMA shuts down establishments that do not observe sound waste management practices	54
NEMA plays a critical role in MSWM in my county	46
NEMA officers inspect our neighbourhoods to ensure we collect and store solid waste in an environmentally-safe manner	42
NEMA officers routinely arrest and prosecute those who illegally dump or mishandle solid waste in my neighbourhood	36
NEMA officers routinely educate residents on how to manage waste in an environmentally-safe manner	36

Table 1: *Assessment of NEMA on MSWM*

NEMA's poor rating from the survey is consistent with findings from other studies⁷⁴ that focused on its actual performance, and several factors may explain the prevailing state of affairs with implications for sectoral coordination in MSWM. First, NEMA has in recent years faced funding constraints which coincided with

the decision by National government to substantially reduce fees levied for environmental impact assessment (EIA) licenses. A review of audited financial reports of NEMA indicates that between the financial years 2014/5 and 2016/7, income derived from EIA licenses on average constituted 71 per cent of NEMA's total revenue.⁷⁵ In FY2015/6 NEMA earned

⁷² EMCA, Sec 9 (2) (a).

⁷³ *ibid* Sec 9 (2) (m) & (o).

⁷⁴ Benson Ochieng, 'Institutional Arrangements for Environmental Management in Kenya' in Okidi and others (eds), (n 21) 203; Evanson Kamau, 'Pollution Control in Developing Countries with a Case Study on Kenya: A Need for Consistent and Stable Regimes' (2011) 9 *Revista Internacional de Direito e Cidadania* 29-42.

⁷⁵ See Office of Auditor- General, 'Report of the auditor-general on the financial statements of national environment management authority for the year ended 20 June 2016' <<http://oagkenya.go.ke/Audit-Reports?path=State%20Corporations>>.

Ksh524,803,000/= from EIA license fees before dropping to Ksh269,829,000/= in FY2016/7 after the fees were drastically reduced, representing a 38 per cent drop in overall revenue. Thus, funding constraints mean that NEMA is not able to employ and retain sufficient staff to discharge their mandates. It was observed that due to shortfalls in technical staff, NEMA was unable to participate in most coordination mechanisms convened to address environmental challenges at any given time.⁷⁶

Secondly reduction in revenue base means that NEMA is not able to adequately discharge its functions unless with external funding from development partners. A review of NEMA's official audit reports from FY 2013/4 to 2017/8 show that external funding to NEMA comprises on average 27 per cent of the annual total grants the agency receives.⁷⁷ In the various audit reports, donor funding is captured as development funding whereas, government grants go to recurrent expenditure. Thus, NEMA totally depends on donor funding for its programming. This predisposes NEMA to capture by foreign donors, further weakening its independence and therefore regulatory capacity. Under such circumstances, NEMA staff invariably participated more in donor-funded coordination mechanisms on MSWM, than in other cases where no funding was provided.⁷⁸

Thirdly, the relationship between NEMA and ministries of National government as lead agencies is rather problematic. The Ministry of Environment & Forestry is designated by law as a lead agency,⁷⁹ but also provides policy oversight and support (as part of its constitutional role) to NEMA, among other

agencies under its ministerial ambit. Within the context of MSWM, the Ministry recently took over regulatory functions pertaining to hazardous wastes under the various international treaties⁸⁰ and therefore its activities fall under the coordination ambit of NEMA. Because NEMA is not an independent regulatory agency, it plays subordinate role to the Ministry and lacks muscle to exercise its power over the Ministry as a lead agency. It is doubtful that NEMA can feasibly exercise powers over the Ministry of Environment (or any other ministry for that matter) as a lead agency with success, unless the definition of the term is amended to exclude ministries of National government.

Fifth, the institutional design of NEMA and the control of the selection and appointment process by the President and Cabinet Secretary predisposes the agency to complete control by the National government.⁸¹ This makes NEMA vulnerable to politicisation and political interference in its decisions, thus undermining its sectoral coordination role. The case of *Save Lamu & 5 others v National Environmental Management Authority (NEMA) & another*⁸² is instructive. This appeal was filed by an NGO and group of residents of Lamu at the National Environment Tribunal against the decision by NEMA to grant Amu Power Company Ltd an EIA license for establishing a coal-fired power plant, on grounds that, among others/ inter alia, there was no adequate public participation. In upholding the appeal, the Tribunal was critical of NEMA's role and conduct in the whole process of EIA licensing, particularly the manner in which the Authority disregarded comments from lead agencies and allowing the project proponent to 'run the show,' as it were.⁸³ Thus, this case illustrates that

76 Interview with Maureen Njeri, Head of Waste Management Section, NEMA headquarters (Nairobi, 11 August 2018) and Veronica Maina, Officer –in-Charge, Waste Management Section, Nairobi County NEMA offices (Nairobi, 18 September 2018).

77 See Office of Auditor- General (n75).

78 Key informant interview with Maureen Njeri (n76) who observed that staff took part in several coordination meetings held to discuss SWM issues in the emerging extractives sector, funded by the World Bank.

79 EMCA S.2 which defines lead agencies to include government ministries empowered by law to control or management any element of natural resources or environment.

80 Interview with Dr Ayub Macharia, Director, Ministry of Environment and Forestry (Nairobi, 29 November 2018).

81 EMCA S.10; The Chairperson of the Board is appointed by the President while other members of the Board who are not ex-officio (including the Director General) are appointed by the Cabinet Secretary.

82 (2019) eKLR; also cited as Tribunal Appeal No. NET 196 of 2016.

83 The project proponent, Amy Power Company is partly owned by Centum Investment Group, a holding company associated with some powerful business leaders close to the political establishment. The government was also heavily vested in the success of this project as part of its ambitions to expand power generation capacity.

when political pressure is applied on NEMA, the agency can easily shirk its sectoral coordination obligations for expediency, by subverting or disregarding the mandatory consultative approach required under the EIA process.

At the County level, County governments are mandated to regulate and deliver services on solid waste within the context of controlling public nuisances and promoting public health.⁸⁴ County governments also

exercise strategic oversight roles on MSWM through land-use regulation and development control regulation, which determine the siting of related facilities and infrastructure.⁸⁵ County governments have power to regulate waste generators operating within their jurisdictions by overseeing agricultural facilities (e.g. livestock yards & abattoirs), public amenities, transport facilities, markets and public housing.⁸⁶

Issue/proposition	Level of agreement (%)
County Govt considers compliance with waste management regulations of my business establishment before issuing us with an annual business/trading license	43
County Govt ensures timely collection of wastes in my neighbourhood	37
County Govt in extreme cases shuts down commercial and industrial establishments that do not observe sound MSWM practices and relevant law	33
County Govt under extreme circumstances issues notice of closure to establishments that fail to observe sound waste management practices	32
County Govt officers routinely inspect our neighbourhood to ensure residents collect and store solid waste in an environmentally- safe manner	30
County Govt allows participation of residents/community associations in waste management decision-making	26
County Govt officers routinely arrest those who illegally dump wastes in my neighbourhood	24
County Govt manages public dumpsites in an environmentally-safe manner	17
County Govt officers educate residents on how to manage waste in an environmentally-safe manner	17

Table 2: Performance of County governments in MSWM

⁸⁴ Constitution of Kenya, 2010, Fourth Schedule, Part 2 Sec 2 (g) & 3 as read with Public Health Act, cap 287.

⁸⁵ *ibid* Part 2 Sec 8 as read with Physical and Land Use Planning Act.

⁸⁶ *ibid* Part 2 Secs 1, 4, 5,7 & 8.

In all the four Counties targeted by this survey, functional waste departments had been established under the respective environment ministry except one.⁸⁷ In all the target Counties, the respective waste departments had taken over all aspects of waste operations except licensing of transporters and operators, which was still under NEMA. Except Nairobi, all other three Counties were yet to adopt solid waste laws and hence were relying on the bylaws that had been enacted by the defunct local authorities in the pre-2010 constitutional dispensation. However, survey respondents rated rather poorly, the performance of the County governments in discharge of key MSWM functions as shown below:

The upshot is that these perceptions point to weak regulatory and operational capacity of County governments in discharging their MSWM responsibilities. With such poor perceptions, Counties credibility and therefore ability to convene stakeholders at the county level for coordination on MSWM issues is effectively undermined. This also undermines effective consideration of other sectoral perspectives in regulation of waste activities at the County level.

Several issues explain the prevailing state of affairs, with implications for sectoral coordination. First, Counties are not allocating sufficient funds to MSWM functions. In its integrated development plan for 2014-2017, Nairobi City County for instance, projected to spend Ksh5 billion for MSWM services for the FY2013/4- 2016/7.⁸⁸ However, during the same period, the City County spent at total of Ksh2.9 Billion on MSWM services, hence 42 per cent of the projected costs were not funded.⁸⁹ Without adequate funding, City officials lamented challenges in procurement of adequate equipment, servicing of waste collection contracts and poor management of dumpsites.⁹⁰ Given these constraints, it is unlikely

that the County officials will prioritise expenditures for sectoral coordination functions over service delivery.

Secondly, lack of clarity in the division of regulatory responsibilities between National and county governments continues to hamper the ability of County governments to assert their full authority on MSWM. The bone of contention in this regard is the power to license key waste actors (transporters, facilities and traders). In the case *Waste and Environment Management Association of Kenya (WEMAK) v Nairobi City County & NEMA*⁹¹ an association of waste collectors sought the annulment of provisions of the Nairobi City County Solid Waste Management Act, 2015 on various grounds among them that the impugned Act purported to confer upon the respondent County government the power to license waste operators and incinerators, contrary to provisions of EMCA. The judge declined to suspend the Nairobi waste law and observed that a cursory reading of the Fourth Schedule to CoK 2010 indicates that regulation of waste management was a devolved function.

Even though the National Solid Waste Management Strategy (2015) acknowledged the need for reconceptualisation of the role of the NEMA vis-à-vis those of County governments in MSWM, it did not go far enough to resolve the ambiguity.⁹² Due to this persistent ambiguity, County officials are unable to exercise much authority over waste actors licensed by NEMA, accusing the Agency of not sharing licensing information with counties to facilitate effective monitoring and enforcement against these actors.⁹³ In view of these, the prospects of County governments convening actors licensed by National government for sectoral coordination purposes appears rather unfeasible.

87 In Machakos, the waste department was domiciled at the time of the study in the devolution and public services ministry.

88 Nairobi City County, *Nairobi County Integrated Development Plan 2014* (Nairobi City County, 2014) 174.

89 Kenya National Bureau of Statistics, *Economic Survey 2018* (KNBS, 2018) 145.

90 Key informant interview with Edwin Murimi (n 64) Nairobi City County Government.

91 (2016) eKLR also cited as Petition No 118 of 2016, High Court at Nairobi (Milimani Law Courts).

92 NEMA (2015) supra pp 48-49; Rather, the Strategy recommends that NEMA retains policy, supervision, enforcement and capacity building roles in SWM whereas County governments take up waste planning, collection, disposal, awareness creation, enforcement and promotion of partnerships.

93 Key informant interview with Marcelline Odhiambo, Public Health Officer, Public Health Department (Nairobi City County Government, 11 August 2018).

Thirdly, Counties that were targeted by the study had fused within the respective waste departments, both regulatory and operational functions.⁹⁴ This appears to create a conflict of interest in that the department may abuse its licensing powers by either excluding competitors from the private sectors from lucrative waste management services or permitting non-compliant County equipment or facilities to operate in disregard of standard regulatory requirements, hence undermining the quality of waste services rendered to residents. The South African Competition Tribunal made a similar observation in the case *Dumpit Waste Removal v The City of Johannesburg & Pikitup Johannesburg Ltd*⁹⁵ and held that where a local (waste) authority had statutory mandate to license its own entities to compete with independent companies in provision of waste services, this might be viewed as flouting basic requirements of fairness as provided for in the Constitution and administrative law. Therefore, unless the licensing and operational functions of waste authorities are decoupled, private sector may find it difficult to effectively engage with County government on coordination initiatives.

Fourth, corruption and impunity are prevalent in the target Counties and this undermines the capacity of waste authorities to discharge their respective mandates effectively. In Kajiado County, an official cited a case where a private waste collector colluded with local officials in re-dumping collected wastes in neighbourhoods in order to inflate the number of collection trips hence payments.⁹⁶ In Nairobi City County, cartels are deemed to hold a tight stranglehold on lucrative waste management procurement processes

and in the running of Nairobi's only authorised dumpsite (Dandora).⁹⁷ Corruption and impunity thus, fundamentally undermines credibility of County authorities to effectively coordinate other sectors and therefore ability to handle trade-offs necessary for balancing environmental and economic considerations hence undermining environment integration.

3.3 Effectiveness of Sectoral Coordination Mechanisms at National and County Levels

Under EMCA, NEMA is required to establish the Technical Advisory Committee (TAC) to review EIA reports and advise the Authority accordingly.⁹⁸ By bringing together representatives from different sectors, TAC represents a sectoral coordination mechanism. However, funding challenges have impeded the holding of regular TAC meetings.⁹⁹

Under the various sectoral laws, NEMA has been incorporated in decision-making structures of sectoral agencies and this provides opportunity for promotion of sectoral coordination. Under OSHA for instance, NEMA is a member of the National Council for Occupational Safety and Health (NACOSH), which is multi-sectoral in its composition and is responsible for policy formulation and general oversight.¹⁰⁰ NEMA representatives regularly attend the meetings of NACOSH and this places the Authority in a prime position to influence the work of the Directorate of Occupational Safety and Health (DOSHS) in regards to occupational hygiene and environmental protection at the workplace.¹⁰¹

94 Despite NEMA exercising licencing powers over waste actors, county governments continue issuing business/trading licences to same actors. The County government also issues permits for disposing wastes at its official dumpsites.

95 (2004) ZACT 1 also cited as Case Number 21/IR/Apr02.

96 Key informant interview with John Kanini, Director of Environment, Kajiado County Government (Kajiado, 09 October 2018).

97 Key informant interview, Nimrod Masaka, Ag. Director, Urban Planning Department, Nairobi City County Government (Nairobi, 10 September 2018).

98 *ibid* Sec 61.

99 Key informant interview with Maureen Njeri (n 76) of NEMA HQ.

100 OSHA Sec 27.

101 Key informant interview, Kenneth Njuguna, Head of Hygiene Division, Department of Occupational Safety and Health (DOSHS) (Nairobi, 11 August 2018).

Under Physical and Land Use Planning Act, NEMA is also represented in the National Physical Liaison Committee, which plays policy advisory role as well as entertaining appeals against decisions made by national planning authority. This includes environmental impacts of strategic projects including MSWM facilities.¹⁰² However, this structure is relatively new and yet to be operationalised.

NEMA is further mandated to coordinate with lead agencies on environmental protection programmes including MSWM.¹⁰³ However, no formal structures exists to facilitate coordination in a systematic and structured manner. The 2014 amendments to EMCA abolished the National Environment Council (NEC) and the Standards and Enforcement Review Committee (SERC), which served as key sectoral coordination structures in the environment sector. The NEC served as the policymaking and coordination organ with broad stakeholder representation in which NEMA served as the secretariat.¹⁰⁴ The SERC hitherto was chaired by the Permanent Secretary in the environment ministry and comprised of NEMA (as secretary) and other lead agencies.¹⁰⁵ Through the SERC, NEMA would exercise a mandatory convening power over lead agencies in relation to standard-setting and norm development in the environment sector. Thus currently, NEMA interacts with sectoral agencies mostly on ad hoc basis, in response to emergent environmental crises or in donor funded initiatives.¹⁰⁶

There is a strong perception among stakeholders that NEMA is too preoccupied with its enforcement roles

and much less on sectoral coordination.¹⁰⁷ The Court had occasion to scrutinise NEMA's sectoral coordination role in MSWM in the case *Osano & another v Municipal Council of Nakuru*¹⁰⁸ where local residents had accused NEMA of neglecting its regulatory duties, precipitating a waste dumpsite crisis in Nakuru town. NEMA defended itself by contending that it had taken all steps to address the waste crisis including prosecuting the offending local authority. The Court found NEMA to have neglected its statutory duties and thus duly noted:

Though NEMA must be commended for discharging its investigative and prosecutorial powers in this case, it needed to do much more pursuant to its functions under section 9 of EMCA. It ought to have exercised its co-ordination, advisory and technical support functions with a view to ensuring the citizens' right to a clean and healthy environment is safeguarded. Success of NEMA will ultimately be seen more in a clean and healthy environment for Kenyans than in anything else.¹⁰⁹

This holding underlines the need for NEMA to strike a balance between use of coercive powers to elicit compliance, with leveraging on its sectoral coordination role to ensure lead agencies have capacity and inclination to address waste management issues.

At the County level, sectoral coordination is expected to take place between and among County departments vested with operational and regulatory responsibilities in MSWM and with non-state actors. These departments include, the Department of environment

102 *ibid* Sec 75.

103 EMCA, Sec 9 (2) (a).

104 This was initially provided under EMCA, Act No 8 of 1999 under Part III (now repealed).

105 *ibid*, Sec 70 -1 (now repealed).

106 Key informant interview, Maureen Njeri, NEMA HQ (n 76) and Kenneth Njuguna (n 101) DOSH; Both NEMA and DOSH have in the past established ad hoc task groups to carryout joint investigations (e.g. on the suspected case of lead poisoning at an informal settlement known as Owino Ouru in Mombasa County in 2014) and both are currently involved in a donor-funded task group on developing regulatory framework for occupational safety and health in the extractives sector.

107 Interview with Koyier Barreh, Planning and EIA Expert (Nairobi, 10 September 2019).

108 (2018) eKLR also cited as Petition No 53 of 2012, ELC at Nakuru.

109 *ibid* para 73.

which is responsible for licensing and operational aspects of MSWM; Department of physical planning responsible for approving land use (including citing of waste facilities) and building approvals; Department of public health which enforces the law on wastes (as nuisances) and participates in building approvals; Department of trade/public administration renders business/trading licenses to business.

In the four target counties, the study established strong coordination and collaboration between public health and physical planning departments ostensibly due to their shared mandate of rendering building approvals. On the other hand, there is strong collaboration and coordination between the departments of environment and trade/public administration. In all Counties, the departments of health and physical planning complained of being left-out in key decision-making processes led by the environment department e.g. the process of development of solid waste legislations and licensing of operators. Thus, inter-departmental coordination at the County level is rather problematic. This is attributed to a persistent culture of working in silos, which is common in bureaucracies; limited incentives (under staff performance management) for inter departmental collaboration and; budgeting frameworks which underemphasise cross-department initiatives.

EMCA establishes the County Environmental Committee (CEC) responsible for environmental management and formulation of a county strategic environmental action plan, to which MSWM matters are integral.¹¹⁰ The Committee is constituted by the Governor and chaired by the County Executive Committee Member (CECM) responsible for environment. It draws its membership from key ministries, regional development authorities operating within the county, NEMA and non-state actors (private sector, NGOs and farmers/livestock representatives).

The presence of NEMA in the CEC provides a vertical informational link between county actors and national institutions. The CEC plays an important sectoral coordination role and therefore environmental integration at the county-level, including on MSWM matters.

In the study counties, Machakos and Kajiado had established County Environment Committees, whereas in Nairobi and Kiambu, the respective County governors were yet to appoint nominees to the Committees. The Kajiado CEC was appointed in February 2015 as a pioneer in Kenya. The Kajiado CEC formulated the inaugural County Environment Action Plan (CEAP) and took part in the development of the first generation County Integrated Development Plan (CIDP). Following the election of a new Governor in Kajiado in 2017, the CEC was reconstituted following departure of some key county officials.¹¹¹ The Machakos CEC was appointed in September 2018 but is yet to formally meet, after the appointment process was found to have been defective in the same manner as the Kajiado one. This points to weaknesses in the appointment process. The reasons for delays in the appointment of CECs in Kiambu and Nairobi were attributed to political considerations.¹¹²

Consistent with the foregoing, the survey respondents gave a rather poor assessment of CECs with 28 per cent aware that the respective County government had established a CEC and; 26 per cent agreed CECs were active and visible in the respective counties. The perceived poor performance of CECs can be attributed to various factors. First, CECs face budgetary

110 *ibid* Sec 29 & 30.

111 According to John Kanini (n 96) of Kajiado County Government, the selection of members gazetted by the Governor were found to have violated the law and hence the Department of Environment has advised the same be reviewed.

112 Interview with Stephen Kimutu, County Director, NEMA, Kiambu County (Kiambu Town, 29 August 2018) and Patrick Kimeu, Senior Administrative Officer, Department of Environment and Natural Resources, Machakos County Government (Machakos Town, 10 August 2018); the key informant observed that the respective Governors were not happy with the initial list of nominees presented to them for appointment and hence the delays.¹

constraints due to limited financial allocations by County governments for their operations. Secondly, there is no clarity regarding the proper institutional home of the CEC. Because CECs are creatures of EMCA, County government officials feel that the committees should be domiciled in and funded by NEMA. Yet, NEMA argues that CECs are appointed by respective County governors and comprise largely county officials and hence should be treated as county structures. This persistent ambiguity has also contributed to limited financial allocations to the functions of CECs.

Fourthly, CECs largely operate at the County headquarter-level and are yet to be decentralised to the sub-county level, where implementation of environmental activities takes place. This diminishes their outreach and visibility. Lastly, the CECs are dominated by county officials and therefore may lack independence in the discharge of their oversight role. Related to this, County Governors continue to bungle the appointment process by trying to ensure the CECs are dominated by their political supporters and this undermines the legitimacy of these structures.

3.4 Application of Instruments that Promote Sectoral Coordination

Environmental impact assessments (EIA) are perhaps the best known tools for environmental integration.¹¹³ Developers of projects specified in EMCA that are likely to have significant impacts on the environment are required to undertake prior an environmental impact assessment (EIA) study and acquire a license from NEMA.¹¹⁴ Among some of the issues to be considered in the EIA study include waste generated

by the proposed project.¹¹⁵ Having been issued with EIA license, the project operator (licensee) is required to undertake environmental audits (EA) periodically, and submit to NEMA an audit report on compliance with approved environment management plan (EMP) and indicating measures undertaken to mitigate any unforeseen but undesirable effects.¹¹⁶ NEMA is required to ensure lead agencies with particular interest in a proposed project to review the EIA study report and submit comments, thus facilitating sectoral coordination in this regard. Mandatory consultations by NEMA with the public over EIA reports also play a sectoral coordination role.

The survey respondents' ratings of the EIA process was very positive with 72 per cent of respondents whose establishments are subject to EIA requirements reporting that the environmental management plans developed pursuant to EIA license requirements adequately prioritise MSWM issues. 80 per cent of the respondents acknowledged that their establishments focus on MSWM issues when conducting respective environmental audits (EA) while 68 per cent felt that NEMA prioritises MSWM issues in approving EAs carried out by respective establishments. These approval ratings for the EIA and EA processes may be construed as satisfaction with the suitability of EIA and EA tools in MSWM regulation.

Residents associations were, however, critical of EIA approvals rendered for projects within the target Counties. They felt that the NEMA issued EIA licenses without putting taking into account the views of the communities, thereby making decisions that imperil the environment.¹¹⁷ This effectively undermines the credibility of EIA as a tool for environmental integration. Inadequate consultation of stakeholders affected by an EIA decision invariably leads to unwarranted litigation. This speaks further to the need

113 Hens Runhaar and Peter Driessen, 'Sustainable Urban Development and the Challenge of Policy Integration: An Assessment of Planning Tools for Integrating Spatial and Environmental Planning in the Netherlands' (2009) 36 *Environment and Planning B: Planning and Design* 418.

114 *ibid* Sec 58.

115 Regulation 18 (f) of the Environmental (Impact Assessment and Audit) Regulations, 2003.

116 Sec 68 of EMCA; waste management actions are to be included in the assessed measures and impacts thereof.

117 Interviews with Ms Kagia of Runda Residents Association (n 66) and John Mutinda, Chairman Environment committee of Syokimau Residents Association (Nairobi, 18 November 2018).

for NEMA to enhance its capacity in facilitation and promotion of public participation and stakeholder consultation.

Environmental planning is also another important tool for horizontal environmental integration.¹¹⁸ NEMA has the mandate to formulate a National Environmental Action Plan (NEAP) every 6 years for approval by the Cabinet Secretary.¹¹⁹ The process of formulation of NEAP involves various stakeholders including lead agencies and non-state actors at the national level. Of note, the plan proposes guidelines for integration of standards of environmental protection into development planning and is binding to all persons and public authorities.¹²⁰

Since 1994 and up to 2013, the Government prepared and adopted NEAPs on a 6-year basis. Since the adoption of the Constitution 2010, however, the Government has not adopted the NEAP which is suggestive of a low prioritisation of this tool. Notably, the last NEAP (2009-2013) had a section dedicated to MSWM and contained such useful interventions as promotion of cost-effective and appropriate waste management technologies, research and development of recycled products.¹²¹ The survey revealed that NEMA was in the process of developing a new NEAP and had been involving private sector organisations and residents associations in the process. NEAP had incorporated MSWM issues and this could form a good basis for national solid waste planning. The extent to which NEAP influences government budgeting and programming is, however, unclear. The current Medium-Term Expenditure Framework (MTEF), which is a strategic budgeting document, contains no mention of the NEAP.

EMCA mandates the respective County Environment Committees (CEC) to develop a county environment action plan (CEAP) for consideration and adoption by the respective County Assembly.¹²² NEMA has a role in the development of CEAP and is required to ensure its alignment to the NEAP. Public participation and institutional consultations are a requirement in the development of both NEAP and CEAP. In terms of contents, the CEAP borrows largely from NEAP, only that it lacks a provision binding CEAP vis-à-vis other persons and public authorities at the county level. MSWM issues facing a county and actions required to address the same are part of the CEAP as well.

All the counties targeted by this study had developed a CEAP during the first tenure of devolved governments (2013-2017). In the absence of duly appointed CECs, the CEAP process was largely undertaken by technocrats in the respective environment departments of the target Counties. These plans were never submitted to the respective County Assemblies for deliberation and adoption and therefore remain as just policy drafts. The CEAPs are not referenced in the integrated development plans of the respective Counties and there is no indication whatsoever that they inform the budget processes.¹²³ Therefore, there was limited stakeholder engagement and therefore it is doubtful if the first-generation CEAPs played a meaningful sectoral coordination role, which is vital for environmental integration. The influence of CEAP in the design and implementation of development projects in the respective counties therefore remains unclear.

118 Runhaar & Driessen (n 113); Høgl & Norbeck (n 18).
119 Sec 37, EMCA.

120 Sec 38 (l), EMCA.

121 Government of Kenya & NEMA, *National Environment Action Plan Framework: 2009-2013* (NEMA, 2009) 11-12.

122 Sec 40, EMCA.

123 Of the 4 CIDPs reviewed, only Kajiado CIDP (2018-2022) mentioned the formulation of a CEAP as a priority under implementation of initiatives under Environment Management Improvement.

3.5 Prospects for Improved Sectoral Coordination

The study has underscored the entrenchment of the principle of sustainable development and right to clean and healthy environment in the Constitution as providing a foundation for implementation of the concept of environmental integration in MSWM. However, the legislative framework, particularly the EMCA framework, do not adequately entrench norms supportive of the waste hierarchy and circular economy. Without imposing clear obligations on waste actors in relation to waste re-use, recycling and recovery, the EMCA framework misses an opportunity for providing a framework for sectoral coordination of these actors.

The Ministry of Environment in the National Government is spearheading efforts towards enactment of a consolidated national law on solid waste management—the Sustainable Waste Management Bill of 2019. The draft law has incorporated environmental protection rights and obligations as well as waste hierarchy approach in its framework.¹²⁴ If enacted, the Bill would contribute significantly at a normative level to environmental integration in the sector. The Ministry has also developed a draft national solid waste management policy¹²⁵ which would complement the implementation of the national solid waste law upon enactment. At the County level, the Council of Governors has developed model county solid waste management law and policy¹²⁶ as legislative guides to assist Counties formulate appropriate frameworks anchored in the waste hierarchy and circular economy concepts.

There is a need for environmental interest groups to advocate for the enactment of these laws and policies at both national and county level. There is also a need for NEMA and County governments to collaborate in the development and implementation of comprehensive waste education programmes, which will aim to build support for the implementation of waste hierarchy. An informed citizenry is more likely to demand for action from political leaders and thus, promote political will necessary to ensure sectoral coordination and resolution of MSWM problems.

With EMCA and the subsidiary Waste Regulations (2006) as the current preeminent MSWM legal framework, NEMA therefore continues to occupy a central place in regulation of wastes at both national and county levels. NEMA's continuing role as coordinator of sectoral agencies places the regulator in a leveraged position to influence effectively environmental integration in the MSWM. To empower NEMA to discharge its obligations effectively, there is need to reconsider the decision on the drastic reduction of EIA license fees and reverse the same in order to increase the Authority's revenue base. Secondly, there is a need to strengthen the Technical Advisory Committee for effective sectoral coordination within the context of the EIA process. To secure the independence of NEMA, there is need to reconceptualise the Authority as a shared institution between the National and County governments and ensure both levels of government are represented in the governance structure of NEMA.

The adoption and operationalisation of devolved system of governance has had positive impact on environmental management generally. County governments are now vested with substantial environmental management responsibilities and resources as compared to the defunct local authorities' predecessors. Despite a clear role in MSWM, county authorities were rated poorly by respondents in most aspects of MSWM regulation. There is need for County governments to consider increasing funding levels for MSWM activities in a manner which promotes the waste hierarchy approach for sustainability. There is also need to ensure clarity between sharing of regulatory responsibilities in MSWM between National and County governments, through amendment of NEMA or an advisory opinion at the Supreme Court.

124 Sustainable Waste Management Bill, Sec 4 & 5.

125 Ministry of Environment and Forestry, *National Sustainable Waste Management Policy: Revised Draft*, (Ministry of Environment and Forestry, April 2019) <http://www.environment.go.ke/wp-content/uploads/2019/04/Revised_National_Waste_Policy_2019.pdf>.

126 On file with the author.

Counties should also consider strengthening intra-county departmental coordination, through improved funding for these initiatives. The County should also put in place incentives for promoting inter-departmental cooperation such as embedding in the performance management framework, rewards targeting heads of departments who foster such collaboration. Accordingly, departmental budgets should also contain provisions to support inter-departmental collaborative initiatives. The County environmental committees (CECs) should be strengthened through proper financing, streamlining procedures for appointment of members and further decentralisation at the sub-county levels.

More research is required to assess the prospects of enhancing sectoral coordination through such tools and processes as strategic environmental assessments, regulatory impact assessments, green budgeting and procurement at both county and national levels.

The study analysed the potential for utilisation of regulatory tools for promoting sectoral coordination such as the environmental assessments and planning processes that have strong linkages with MSWM. NEMA and environmental interest groups should promote stakeholder engagement and public participation in the EIA process to increase its legitimacy and fulfil its potential for sectoral coordination. The National government should strengthen the NEAP process by enhancing stakeholder engagement and regular publication of the plan. At the County level, Governors should ensure adoption of CEAPs and support the subsequent implementation processes.

4

CONCLUSIONS

This paper has reviewed the framework for sectoral coordination and horizontal environmental integration in Kenya's MSWM sector. Key gaps in the normative framework, capacity of NEMA and County governments as well as shortcomings in sectoral coordination instruments undermine the potential for sectoral coordination at both levels of government. This in turn weakens effective operationalisation of horizontal integration in MSWM, thus diminishing the realisation of integrated and sustainable MSWM system. However, there is opportunity for addressing the gaps within ongoing environmental sector reforms.

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