

DRAFT
KENYA INTEGRATED SOLID WASTE MANAGEMENT NATIONAL SCAN

OBJECTIVE: Define the national Kenya context for scaling up Integrated Solid Waste Management (ISWM) based on the best practices cited in the Global ISWM Ecosystem Assessment (see GlobalDF website).

Key areas of focus include: (1) the local ecosystem in terms of ISWM accountabilities and funding sources, (2) relevant factors affecting the scaling up of ISWM, (3) ways to optimize potential benefits (i.e., climate, development, job creation, gender), and (4) sources of potential support (e.g., technical, finance, equipment, services, risk mitigation) from the public and private sectors.

For more information, please contact GlobalDF at feedback@globalclearinghouse.org or use the Contact form on the website www.globaldf.org.

Subject	Findings	Sources
Defined accountability for ISWM		
Ownership of ISWM infrastructure	The Constitution of Kenya Part 2 of the fourth Schedule explicitly provides that the County Governments shall be responsible for refuse removal and solid waste disposal. The County Government Act 2012 further vests powers on county governments to establish the necessary structures and procedures that are necessary for ISWM at local levels. All 47 county governments are required to develop action plans for the implementation of solid waste management systems at local levels. They also fund the development of sustainable waste management activities including provision of equipment necessary for waste segregation, containment, collection, material recovery and recycling and disposal. The county governments also provide policies and regulation to promote PPPs in the sector on circular economy.	GOPA Report done for project
Minimum sustainable waste management requirements	County Governments will be required to implement the following if the draft SWM Act (2019) is passed: <ul style="list-style-type: none"> - A MRF in each county - Set aside or acquire at least twenty acres of land for setting up waste recovery and recycling facilities and sanitary landfills for secure final disposal of non-recoverable waste; - County sustainable waste management legislation (within one year after adoption of the Act) - Development of integrated waste management plan (every five years) 	Kenya's Draft Sustainable Waste Management Act (2019)
Sourcing funding and implementing new ISWM infrastructure & systems	County Governments ⁱ	Kenya's National Solid Waste Management Strategy (2014)
Accountability for O&M (cost & operation)	County Governments ⁱⁱ Collection services often outsourced to private companies	Kenya's National Solid Waste Management Strategy (2014)

Subject	Findings	Sources
		Inception Study for the “Transforming Traditional Waste Material Flows in Urban and Peri-Urban Areas of Kenya” Project (2019, Hans Seidel Foundation)
Responsibility for the treatment of e-waste	<p>-NEMA has developed electronic waste (e-waste) regulations which extend responsibility to producers to bare cost of recycling of the products.ⁱⁱⁱ</p> <p>-The draft SWM Act (2019) does not make specific reference to e-waste but includes requirements for take back schemes. It also makes reference to deposit/refunding schemes but does not elaborate on them.</p>	Kenya’s National Solid Waste Management Strategy (2014) Kenya’s Draft Sustainable Waste Management Act (2019)
NG accountability for ISWM	<p>Regulated at the national level by (1) the Ministry of Environment and Forestry and (2) National Environmental Management Authority (NEMA) as its regulatory arm responsible for developing policies, legislation, and economic instruments for ISWM.^{iv}</p> <p>-National Treasury is responsible for channelling funding to the respective government agencies and institutions for development of waste management initiatives and facilities.^v</p>	GOPA Report Kenya’s National Solid Waste Management Strategy (2014)
Approval process for ISWM Projects	<p>- ISWM projects have a two staged approval: NEMA and county government/municipality.</p> <p>-The <u>National Solid Waste Management Strategy (2015)</u> sets out procedures and modalities to guide county governments and/or local authorities to effectively manage waste in their cities. The strategy focuses on the 7R and the circular economy approach of ISWM service delivery that incorporates PPP business concepts. The approach is guided by Environmental Management and Co-ordination Act No. 8 of 1999 (EMCA) that sets out ISWM project approval procedures to regulate and ensure compliance by potential businesses and as well as county government and/or the municipal authorities. -Some of the approval requirement include but not limited to: (1) Type of waste collection vehicles and their environmental compliance to transport waste; and (2) Site selection for waste transfer, disposal, and recycling facilities subject to environmental impact assessment (EIA) report.</p> <p>-At the local level NEMA requires county governments to develop their solid waste management plans aligned to the national strategy and prioritizing ISWM approach with a budget. The plans must also be anchored into the County Government Integrated Development Plan (CIDP).</p> <p>-County governments also set out project approval procedures and related licensing requirement to regulate ISWM sector players. These include the regulatory bylaws that sets out operational procedures and standards in the ISWM sector.</p> <p>-NOTE: NG blocked 12 MW WtE project in Garissa County</p>	-GOPA Report -Article “Politics Blocks Garissa Waste-To-Energy Project” ^{vi}
Entity responsible for setting ISWM tariffs	<p>-County Governments</p> <p>-If Waste to Energy project, national electricity tariffs set by Energy and Petroleum Regulatory Authority (EPRA)</p>	Kenya’s National Solid Waste Management Strategy (2014)

Subject	Findings	Sources
Other key national stakeholders	<ul style="list-style-type: none"> • Ministry of Environment and Forestry (MEFF) • National Environmental Agency (NEMA) under MEFF - develops and enforces environmental standards and regulation • National Treasury (see above) • National Environment Council (policy formulation and setting of national goals) • Ministry of Health^{vii} (medical waste related) • Ministry of Transport, Infrastructure, Housing and Urban Development (development of supporting infrastructure such as roads) • Kenya Bureau of Standards (KEBS) (agency responsible for standardization ensuring that all products are fit for consumption in Kenya. Waste recycling products are therefore subjected to scrutiny to ensure they meet the required standards before clearance with a seal for release into the market) • The Energy Regulatory Commission (ERC) (in the Ministry of Energy and charged with responsibility to regulate all energy production activities in the country. Any investor/initiative intending to generate electricity, including gasification, methane produced from landfills, have to be licensed by ERC) • Securing a PPA is likely to be very difficult until 2025 since there is an excess of renewable energy projects in the pipeline (per KenGen official) 	Evolution of Solid Waste Management Policy Landscape in Kenya, 2016 – Urban Africa Risk Management ^{viii}
Project Developers	<ul style="list-style-type: none"> • National: KenGen financing, developing, and operating the WtE Dandora project • Private sector: Swedish Vr Holding AB, Finnish Woima Corporation • Mr Green Africa develops EPR projects in partnership with corporates 	<ul style="list-style-type: none"> - Articles on Dandora WtE Project^{ix} - See article on WtE plant in Kakamega County^{xi}
Key County Stakeholders	<ul style="list-style-type: none"> • Council of Governors – Committees (Finance, Resource Mobilization, Infrastructure), applying for GCF to serve as grant manager • County-level Committees • Informal sector, CSOs, people now making their livings from waste, etc. 	Council of Governors article ^{xii}
Existing key external providers of support (to be expanded)		
GCF National Designated Entity	National Treasury	https://www.greenclimate.fund/counties/kenya
GCF accredited entities	<ul style="list-style-type: none"> • NEMA • KCB Bank • Acumen Fund • In process: Geothermal Development Company (GDC); Cooperative Bank of Kenya; Green Earth Trust; KIRDI; African Centre of Technology Studies (ACTS); One Acre Fund; East African Development Bank (EADB); Kenya Red Cross, the Council of Governors 	https://www.greenclimate.fund/counties/kenya -In process entities cited in Kenya Climate Paper by ADA Consortium ^{xiii}
Energy Off taker (if WtE)	-National off taker: KenGen (note has WtE project in process)	

Subject	Findings	Sources
	<p>- Local off-takers for steam/heat/biogas produced could include breweries, abattoirs, markets, etc.</p> <p>For Embu specifically: They proposed an industrial park as an offtaker, but the industrial park but hasn't yet been developed. Embu has a large hydropower station already so unlikely that a smaller WtE operation is viable.</p> <p>For WtE projects, likely requirements that offtakers be local (e.g., markets, abattoirs, industries) since getting a project to the grid seems rather complicated based on initial discussions.</p>	
NGOs and networks	<ul style="list-style-type: none"> -Wasteaid (UK NGO) -Africa Circular Economy Network -The Circular Economy & resource efficiency development partner group in Kenya 	
Other Development Partners	<ul style="list-style-type: none"> - EU delegation (Green Deal) World Bank: Urban Support Program, Kenya Accountable Devolution Program (KADP) and Kenya Devolution Support Program (KDSP), Financing Locally-Led Climate Action Program -UNEP/UNIDO: The Kenya National Cleaner Production Centre forms part of the global UNEP/UNIDO National Cleaner Production Centre program. The Centre is mandated to build ISWM capacity, provide policy advice and support project implementation. -JICA -UNH -Sweden -etc Research and Interviews with Donor Working Groups (Circular Economy, W&S) 	<p>-See WB Program documents^{xiv} https://cpkenya.org/</p>
Current Funding of ISWM (OPEX, CAPEX)		
LG Tariffs	<p>Tariffs are set by each LG in accordance with the County Governments Act, 2012. Embu has an SWM act as does Nakuru County which is more advanced and sets out tariffs for collection and tipping, etc.</p>	<p>Kenya's National Solid Waste Management Strategy (2014)</p>
LG Own Source Revenues (e.g., taxes, etc.)	<p>TBC</p>	
Fiscal transfers	<p>-National Treasury is responsible for channelling funding to the respective government agencies and institutions for development of waste management initiatives and facilities.</p> <p>SYSTEMIC ISSUE: Insufficient national government fiscal transfer to counties made more severe by COVID; current discussion of filling gap with county bonds. Often county staff are working without salaries being paid for 3 months because the national govt hasn't transferred funds</p>	<p>Rating agency assessment^{xv}</p>
Revenue from consumer responsibility programs	<p>No mandatory programs are currently in place, but the draft SWM Act (2019) envisages EPR schemes.</p>	<p>Kenya's Draft Sustainable Waste Management Act (2019)</p>
Energy off taker payments	<p>In process (KenGen)</p>	

Subject	Findings	Sources
Grants	TBC –	
Loans	TBC -	
County waste fund	The draft SWM Act (2019) mandates County Governments to establish a County Waste Fund which shall be capitalized by waste levies and fees from facilities developed by the counties. A waste fund can be used to ring-fence revenues.	Kenya’s Draft Sustainable Waste Management Act (2019)
Potential Sources of Project Revenues and/or Finance		
ISWM tariffs	Yes	Kenya’s National Solid Waste Management Strategy (2014)
ISWM taxes	No landfill tax mechanism exists and the draft SWM Act (2019) does not make allowance for a tax	Kenya’s Draft Sustainable Waste Management Act (2019)
Tipping fees	TBC – is private sector charged for disposing of waste at landfill site?	
Landfill taxes	TBC - National strategy references landfill taxes but not clear whether implemented. The draft SWM Act (2019) does not make allowance for a landfill tax.	Kenya’s National Solid Waste Management Strategy (2014) Kenya’s Draft Sustainable Waste Management Act (2019)
Licenses	TBC	
Energy off taker payments	In process (KENGEN)	
LG Own Source Revenues (e.g., taxes, etc.)	Yes	
County Climate Funds	Yes for some counties	
National Environment Trust Fund (NETFUND)	YES - NETFUND is building up a diversified pool of funding resources from international development partners and national budget to finance environmental research and capacity building projects and initiatives in biodiversity conservation, pollution control, waste management, resource efficient and clean production and the restoration of forests and vital ecosystems.	https://www.netfund.go.ke
Fiscal transfers	Yes	
Revenue from consumer responsibility programs	TBC	
Grants	Yes – see Annex in development	
Loans	Yes – see Annex in development	
Existing ISWM Infrastructure & Technology		
Priority projects	-ISWM is priority in NDC and New Urban Agenda -Vision 2030 identified ISWM for five cities and towns namely; Mombasa, Kisumu, Eldoret, Nakuru and Thika as a priority and NEMA was tasked with developing this flagship project. TBC	Kenya’s National Solid Waste Management Strategy (2014)

Subject	Findings	Sources
Scope of waste generation	According to the Revised National Waste Policy 2019, Kenya generates about 8 million tons of waste per day at 0.5% national per capita generation rate per person per day out (40% from urban areas). Due to urbanization growth rate in Kenya of about 10%, by 2030, about 5.5 million tons of waste will be generated in urban areas with composition proportion of 60% organic, 20% plastic, 10% paper, 2% metal, and 1 % medical waste. ^{xvi}	GOPA Report: Enabling Environment for Solid Waste Management in Kenya, 2020
Size of ISWM market – waste collection	TBC	Kenya’s National Solid Waste Management Strategy (2014)
Size of ISWM market – waste disposal	TBC	Kenya’s National Solid Waste Management Strategy (2014)
Size of ISWM market – treatment	TBC with NEMA – tonnes requiring treatment to meet targets (i.e., 50% recovery over medium term and 80% recovery over long term)	Kenya’s National Solid Waste Management Strategy (2014)
Existing technologies	-Argument for decentralized WtE -Need to assess alternative solutions	See arguments made by Finnish company active in Kenya market WOMIA ^{xvii}
Existing ISWM Tools	-GIZ Waste Flow Diagram Tool -UN-HABITAT Waste Wise Tool	
Critical success factors for WtE approaches	-Access sufficient levels of appropriate feedstock -Secure adequate energy off-take agreements with timely full payments -Secure adequate land within required distance of plant	
Existing programmes that can be leveraged		
Coordination Mechanisms	-Country Integrated Development Plans (CIDPs) are the vehicle by which national government place responsibility on counties to implement climate change on the ground -The National Climate Change Action Plan (NCCAP) calls for systematic local actions coordinated between national and county governments as identified in the CIDPs	World Bank Program “Financing Locally-led Climate Action Program” ^{xviii}
National ISWM programmes <i>Objectives, available funding, technical support, partners</i>	-KADP II seen as WB as key foundation for WB Program “Financing Locally-Led Climate Action Program” -NAMA on Circular Economy Solid Waste Management Approach for Urban Areas in Kenya: Targets the diversion of at least 90 per cent of collected waste away from disposal sites and towards various recycling practices. Program targeted 600 tonnes of diversion per day.[-WB Program “Financing Locally-Led Climate Action Program” NAMA on Circular Economy Solid Waste Management Approach For Urban Areas in Kenya ^{xix}
Regional ISWM programmes	TBC	

Subject	Findings	Sources
<i>Objectives, available funding, technical support, partners</i>		
Technical support programmes with ISWM <i>Include development partner programmes</i>	<p>-WB Kenya Financing Locally-Led Climate Action Program – US\$ 230 million in grants available for “Locally-Led climate action” managed by MOF that can be used to blend resources from international climate finance development partners and the private sector also with county and national government resources (county needs to meet minimum access conditions for readiness grants)</p> <p>-WB Kenya Urban Support Program (KUSP) can fund the following ISWM spend: collection equipment, collection bins, transfer stations, collection points (construction of sanitary landfill is excluded). Liquid waste: sludge ponds, community septic tanks, vacuum trucks, vacuum handcarts, and others.</p> <p>-Sweden - Partnership between the Council of Governors and Sweden through the Embassy and Swedish Association of Local Authorities and Regions (SALAR)</p> <p>-UNDP Low Emission Capacity Building (LECB) Programme</p>	<p>-WB Program “Financing Locally-Led Climate Action Program” (pages 11 - 12)^{xx}</p> <p>-NAMA on Circular Economy Solid Waste Management Approach For Urban Areas in Kenya^{xxi}</p> <p>-WB Kenya Urban Support Program - Program Appraisal Document</p> <p>-Council of Governors website: NORDIC AMBASSADORS VISIT AHERO TOWN^{xxii}</p>
Relevant SME development programmes <i>Include development partner programmes</i>	TBC	
Demand for ISWM from key stakeholders		
Perceived benefits from Counties & constituencies	TBC – See New Urban Agenda	
Perceived benefits from NG decision makers (i.e., interests)		
-National Treasury - Channels funding for ISWM (Climate Finance Unit to mobilize and manage climate change financing and responsible for funds and instruments with ties to climate change adaptation)	TBC	World Bank Program “Financing Locally-led Climate Action Program”
-Ministry of Environment & Resources – Responsible for formulation of policies and legislation, and ensuring adherence to international agreements on environment	Improved air and water quality, GHG emission savings	

Subject	Findings	Sources
-Ministry of Health and Sanitation - develop laws and guidelines for management of biomedical wastes in hospitals and regulating sector players involved in management of medical waste	Improved health etc	
-NEMA - Responsible for enforcement of requisite policies and legislations to ensure sustainable waste management; develops and disseminates public information on regulatory requirements for waste management in the country including public awareness sessions	TBC	
-Ministry of Land, Housing, and Urban Development - Responsible for development of supporting infrastructures such as roads, bridges, landfills to facilitate proper management of wastes by the 47 counties. Counterpart for WB Kenya Municipal Program (KMP)	TBC	
Climate Change Directorate (CCD) – Coordinating agency for climate change and actions serving as the national centre for coordinating actors, capacity-building, and collating, verifying, and disseminating knowledge and information on climate change	TBC	World Bank Program “Financing Locally-led Climate Action Program”
-Other ministries & entities: national and subnational development bank, climate fund, etc.?	TBC	

Subject	Findings	Sources
Perceived benefits from development partners & other potential supporters	Overall: GHG emission savings, health, job creation potential WB: “Locally-led climate action can inform traditional knowledge with the latest climate science to develop innovation solutions that are inclusive, sustainable, and respond directly to the needs and priorities of local communities”	World Bank Program “Financing Locally-led Climate Action Program” (page 5)
History of successful ISWM projects	TBC	
Scope and Type of ISWM projects in demand <i>Projects identified during demand assessment; type of ISWM (connected to treatment, collection or landfilling)</i>	TBC – National Waste Strategy supports thermal treatment of waste. However, climate focused funders may not support incineration projects.	Kenya’s National Solid Waste Management Strategy (2014)
Counties that could participate in ISWM programme <i>Identified during demand assessment</i>	TBC	
Supply		
Potential private sector participants <i>Identified during demand assessment</i>	-The private sector supports investment in efficient and effective solid waste management facilities through Corporate Social Responsibility (CSR). They also play a role in empowering communities and other stakeholders to understand issues related to waste management and to find sustainable solutions. -Active project developers: KenGen, Swedish Vr Holding AB, Finnish Woima Corporation - other to be added -Other cited companies: Ideas Unlimited (Kenya), Anthony Lara Enviro Solutions (India waste service company), Roserve (India wastewater management firm)	GOPA REPORT Council of Governors website (see Annex)
Civil Society Organizations and Non-Governmental Organizations (CSOs and NGOs)	They promote ventures and technologies geared towards circular economy and income generating waste management initiatives. They also advocate for change on public practices, attitude, and knowledge towards sustainable waste management including agitation for ISWM best practices such as supporting the fight against illegal waste management activities	GOPA REPORT
Informal Sector	CBOs, NGO, local artisans, waste pickers, waste dealers, informal waste processors, youth and women groups, small-scale entrepreneurs among others. The groups are involved in door-to-door waste collection, small-scale recycling and to some extent also engage in awareness raising campaigns to promote ISWM businesses, income generation and environmental health protection.	GOPA Report
Local communities	Collaborate with government entities and other organizations in waste management through the PPP approach. They also play a role in adopting and promoting the 3Rs, in line with the integrated waste management approach. In changing attitudes and practices to	GOPA Report

Subject	Findings	Sources
	embrace polluter responsibility concept, the citizens play critical role to promote businesses and economic development along the waste value chain to improve urban basic service delivery.	
Private sector funding models that could be implemented and regional examples where model was successfully implemented <i>Identified during demand assessment</i>	TBC -Council of Governors idea as GCF grant manager to ringfence grants with access to the climate funds linked to performance - Resource lease model	
Procurement models (that do not require funding by the private sector) that could be implemented and regional examples <i>Identified during demand assessment</i>	TBC	
Risks identified by private sector that need to be mitigated <i>Identified during demand assessment</i>	TBC	
Revenue opportunities identified by private sector (sale of electricity, recyclables, biogas, compost, etc.) <i>Identified during demand assessment</i>	TBC	
Legal & regulatory environment factors		
Bulk procurement <i>Identify legal/regulatory constraints from NG, LG and utility perspective</i>		
PPP <i>Confirm PPPs can be entered into by NG, LG and utility respectively</i>	Yes	
Service Level Agreements (SLAs) <i>Confirm SLAs can be entered into by NG, County or utility</i>	Yes	

Subject	Findings	Sources
County ability to incur bank debt?	Yes - A county government may borrow only if the national government guarantees the loan and with the approval of the county government's assembly	Nairobi County document on record for refinancing of defaulted county bank loan ^{xxiii}
County ability to set up company/SPV?	Yes	
County ability to enter into contracts for period in excess of 3 years?	Yes	
NG intergovernmental financial transfers to Counties or related entities?	Yes	
Plans, policies and regulations that incentivise ISWM	<ul style="list-style-type: none"> -Kenya's National Solid Waste Management Strategy (2014) -E-waste Regulations (developed by NEMA) -National Climate Change Action Plan (NCCAP)^{xxiv} 2018-2023 -Environmental Management and Coordination (Waste Management) regulations of 2006 -National Environment Policy 2013 -Gazette Notice number 2356 of February 2017 banned the manufacture, sale, export and importation of plastic carrier bags (single use) in Kenya -The National Sustainable Waste Management Policy (Revised edition 2019) 	Various
County level frameworks that incentivise ISWM	<ul style="list-style-type: none"> -County Integrated Development Plans -Integrated Waste Management Plans that are subject to approval from NEMA and the County Assembly - County Waste Management Act – requirement of draft SWM Act (2019) -Environmental Management Bylaws (including gazetted tariffs) 	<ul style="list-style-type: none"> -GOPA Report: Enabling Environment for Solid Waste Management in Kenya, 2020 -Kenya's Draft Sustainable Waste Management Act (2019)
County governments that have implemented ISWM bylaws <i>Year published</i>	TBC - The Nairobi city county Solid Waste Management Bill (2014), Municipal Council of Mombasa issued Environmental Management bylaws in 2008	Evolution of Solid Waste Management Policy Landscape in Kenya, 2016 – Urban Africa Risk Management ^{xxv}
Specific ISWM regulations	Requirement for recycling and new system expected to be passed by the National Assembly that will make it mandatory for city residents to separate waste materials from recyclable materials	Article on new KENGEN Dandora WtE Project with Nairobi Metropolitan Services ^{xxvi}
Potential public providers of finance & risk mitigation [need to research using excel sheets, reports, web, selective calls]		
Finance to NG <i>Identify potential funders and associated instruments (grants, concessionary loans, sub debt)</i>	<ul style="list-style-type: none"> -Range of NG funding sources – co-financing from Team Europe initiative (EIB, EU, AFD, KfW) and others (JICA, WB, GCF, NAMA, GEF, AfDB, bilaterals, Africa Climate Finance Fund) -See Annex in development 	In process

Subject	Findings	Sources
<i>and requirements (project sizes, co-funding, currency, etc.)</i>		
Finance to Counties <i>Identify potential funders and associated instruments (grants, concessionary loans, sub debt), any requirement for SPV/PPP and/or national guarantee, and requirements (project sizes, co-funding, currency, etc.). Identify Counties that would qualify for loans and bonds.</i>	<ul style="list-style-type: none"> -Council of Governors advocating for its role as grant manager in climate funds using ring-fencing -National Climate Fund? -National entities: for example, KenGen is currently financing Nairobi Metropolitan Services project (Dandora WtE plant) -For other sources, see Annex in development 	<ul style="list-style-type: none"> -Council of Governors article^{xxvii} -Article on Dandora WtE Project^{xxviii}
Finance to private sector (SMEs & larger companies) <i>Identify potential funders and associated instruments (grants, concessionary loans, sub debt) and requirements (project sizes, co-funding, currency, etc.)</i>	See Annex in development	In process
Risk mitigation to improve project “bankability” <i>Provider, products</i>	[Clean Technology Fund, EIB, External Investment Plan, AfDB, ATI, Africa Export-Import Bank, GuarantCo, WBG (IDA, MIGA, IFC), SIDA, USAID, KfW, etc.]]	In process
Potential public providers of technical assistance [need to research using excel sheets, reports, web, selective calls]		
Policy support, programme design and other technical support <i>Provider, type of support</i>	<p>See Annex in development</p> <p>Examples</p> <ul style="list-style-type: none"> - <u>2.5MW WtE US\$ 35 million plant in Kakamega county</u> to be implemented by Swedish Vr Holding AB and Finnish Woima Corporation -<u>Dandora WtE Project (KenGen)</u>: JICA and UNEP have been involved since 1998 in the consultation and drafting of NCC's Municipal Solid Waste Management Plan, which was last updated in 2010. This, together with the need to close Dandora, has created a momentum that can help bring changes in waste management practices in Nairobi. JICA is supporting the NCC to implement parts of the SWMP, while UNEP monitors the impacts and sponsors a dialogue for change in ISWM practices. JICA is supporting NCC to do an Environmental Impact Assessment and advertise for expressions of interest to decommission Dandora. JICA is also supporting a feasibility study to develop a new site for tipping. Once complete, the NCC plans to advertise a second expression of interest for the development and management of this new tipping site. 	<ul style="list-style-type: none"> -See article on WtE plant in Kakamega County^{xxix} -See UNEP^{xxx}

Subject	Findings	Sources
Potential new sources of private sector finance and conditions		
Ring-fenced tariffs		
Ring-fenced landfill taxes		
PPPs		
Revolving Funds		
National Pension Funds	<p>Potential interest in waste and other projects:</p> <ul style="list-style-type: none"> -The Local Authority Pension Trust and the county councils are developing a joint financing model to scale up public lighting projects investment across the counties - Kenya Pension Fund Investment Consortium (KEPFIC) supported by USAID's Kenya Investment Mechanism, Power Africa, WBG, MiDA Advisors (in partnership with USAID INVEST) 	Aligning Kenya's Financial System with Inclusive Green Investment (IFC) ^{xxxi}
Commercial Banks		
Microfinance institutions		
Social Impact Investors		
Crowd sourcing		
Other?		
Relevant studies & procurement tools		
ISWM strategies <i>ISWM approach & targets</i>		
Standardised contracts developed for ISWM		
Alignment with the country's NDCs & Development	YES	
Possible procurement agencies acceptable to investors (public and private)		
Other relevant studies <i>e.g. national development plan, climate strategy, etc.</i>		
Other information		
Tax incentives for ISWM projects <i>e.g. accelerated depreciation allowance</i>	Draft SWM Act (2019) requires that the Cabinet Secretary shall, in consultation with the Cabinet Secretary responsible for finance, prescribe incentives and make regulations for preferential use of recovered or recycled materials over newly manufactured materials with no recycled content.	Kenya's Draft Sustainable Waste Management Act (2019)
Generation mix <i>% of electricity generated from renewable sources</i>	TBC	

ANNEX: Potential Sources of Support for Kenyan ISWM
[in development]

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
National Government entities					
	Ministries/Agencies <ul style="list-style-type: none"> • MOF • Ministry of Environment and Forestry (MEFF) • National Environmental Agency (NEMA) under MEFF - develops and enforces environmental standards and regulation • National Environment Council (policy formulation and setting of national goals) • Ministry of Health^{xxxii} (medical waste related) • Ministry of transport, infrastructure, Housing and urban development (development of 				

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
	supporting infrastructure such as roads) <ul style="list-style-type: none"> • KenInvest 				
	National/Subnational Development Bank				
	Climate Fund				
	SWF				
	Other sources add				
National Business					
	Kenya National Chamber of Commerce and Industry			Council of Governors ^{xxxiii}	Lan Onditi, National Vice Chairman
County					
	Council of Governors		TBC - Ring-fence revenues	Council of Governors	Article on WB Devolution Program and CGF Accreditation ^{xxxiv}
	Own Source Revenue				County officials
	County Climate Funds (6 counties: Isiolo, Kitui, Garissa, Makueni and Wajir; Nakuru; confirm none in Embu)				
	County Bonds				See Rating Agency suggestions for county bonds to offset lower national funding ^{xxxv}
Bilateral					
	Donor Water Working Group¹				

¹ Members cited in 2018 meeting: Ministry of Water and Sanitation, Danida, USAID, Water Millennium Alliance, the Embassy of Netherlands, the Embassy of Finland, World Bank, European Investment Bank and the SNV- Netherlands Development Organization <https://cog.go.ke/component/k2/item/75-water-sector-donor-working-group-meeting>

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
	AFD	See below transaction (EUR 20 million concessional loan)			
	Denmark (DANIDA, Danish Climate Investment Fund)				
	China				
	DFID	Kwa-Muhia Environmental Group (KMEG) Community based waste recycling centre in Naivasha			
	EIB	Recent deal: Kisumu Lake Victoria Water and Sanitation Project (LVWATSAN with AFD & EU (EUR 35 million concessional loan)			
	EU	See above (EUR 5 million grant with GOK EUR 10 million)			
	Finland				
	Japan - JICA	Historical technical support to Mombasa & Nairobi, check “Clean Healthy Wealthy Nairobi”		GOPA Report: Enabling Environment for Solid Waste Management in Kenya, 2020	
	KfW				
	SECO				
	SIDA	Recent technical support – large circular economy study (see ref)		Inception Study for the “Transforming Traditional Waste Material Flows in Urban and	

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
				Peri-Urban Areas of Kenya” Project (2019, Hans Seidel Foundation)	
	SNV				
	Sweden				
	USAID – WASH Program				
	Mutual Reliance Initiative (AFD, EIB, KfW – Team Europe)			Mutual Reliance Initiative: blending expertise for larger finance capacity ^{xxxvi}	
Multilateral					
	AfDB – 5 country program targeted water & sanitation (incl ISWM)	Historical support channelled through the NG either as a grant or a loan – e.g., Lake Victoria water and Sanitation (LVWATSAN) phase two project			
	AfDB – Sustainable Energy Fund for Africa (SEFA)	The sustainable energy fund for Africa has approved a US\$900k grant to support planning of a 10MW grid connected municipal waste to energy plant in Nairobi.		“Transforming Traditional Waste Material Flows in Urban and Peri-Urban Areas of Kenya” Project (2019)	-Serign Cham Principal Resource Mobilization Officer s.cham@afdb.org -João Duarte Cunha SEFA Coordinator, Energy, Environment and Climate Change Dept. j.cunha@afdb.org
	Africa Climate Fund (supported by GIZ)				See Report ^{xxxvii}

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
	WB - WB Kenya Urban Support Program (2017 to 2023) Borrower: RoK, \$300mm facility	CURRENTLY - 59 Urban boards listed in appraisal document with funding allocations. County Governments receive grants.	-Can fund the following ISWM spend: collection equipment, collection bins, transfer stations, collection points (construction of sanitary landfill is excluded) -Liquid waste: sludge ponds, community septic tanks, vacuum trucks, vacuum handcarts, and others. investment projects are subject to a minimum investment of Ksh 50 million (US\$500,000). At least 80 percent of the UDG shall be spent on non-moveable infrastructure assets. Proposed investments must be included in the annual Urban Area Investment Plan -Other than ISWM, the following sectors also qualify (b) storm water drainage, (c) roads, non-motorized transport facilities, and street lights), (d) urban social and economic infrastructure, (e) fire and disaster management	WB Kenya Urban Support Program - Program Appraisal Document	Abdu Muwonge, Davison Muchadenyika, WB
	GCF		"United for Efficiency" is often partner		Drazen Kucan (BS) dkucan@gcfund.org Mobile: +8210 23476161
	GEF				
	WBG				See excel sheet and WB documents on programs for Nairobi, Urban Support For energy only: -Robert Schlotterer (BS) Senior Financial Analyst Africa Energy Group (AFTEG) rschlotterer@worldbank.org Phone: +1-202-473-6864 -Dana Rysankova (BS)

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
					Senior Energy Specialist drysankova@worldbank.org 202-458-9514
Africa Public Banks					
	AFC				BS contacts
	DBSA				CR/BS contacts
	TDB				BS contacts
	East African Development Bank				?
Public Funds					
	Climate Finance gap Fund				EIB contact (BS)
	Global Subnational Climate Fund				Christophe Nutalle (R-20, BS)
	Meridian Africa Energy Fund				Thierry Deaux, CEO (BS)
	PIDG Africa Infrastructure Fund				Philippe Valahau, CEO (BS)
	?				
Commercial Banks					
	Kenya Commercial Bank Group (KCB) (accredited GCF) ²				
SACCOS/Chamas					
Private Equity					
Waste Developers & Companies					
					Check embassies

² Allowing KCB to receive GCF funding for on-lending to green and climate-friendly projects in Kenya worth between KES 5 and 25 billion. In 2018, KCB identified KES 23.35 billion of climate-related investments for energy efficiency solutions in the manufacturing sector, waste programs and low-carbon technologies. See CPI Kenya Landscape Study, page 48.

Entity Providing Support	Name	Eligible Beneficiary (NG, LG, SME, PPP, etc.)	Requirements	Source	Contact
	-Ideas Unlimited -Anthony Lara Enviro Solutions -Roserve (India wastewater management firm)	Interested in providing wastewater treatment and recycling			-Javal Savia, Ideas Unlimited (Kenya) ^{xxxviii} -Solutions (India embassy)
Pension Funds					
	Local Authority Pension Fund				
	Kenya Pension Fund Investment Consortium (KEPFIC)	All	Meet PF fiduciary requirements		Trustee, Constantine Kandie (BS) constantinekandie@gmail.com
Social Impact Funds (+136 active vehicles in Kenya - non-DFI)					
	OPES/LCEF Fund	Social impact ventures (invested on ECOPOST, uses 100% recycled plastics to make aesthetic, durable and environmentally friendly plastic lumber for use in applications ranging from fencing to landscaping)		Kenya Impact Investment (funded by DFID) ^{xxxix}	
	Capria "Missing Middle" Fund				

GLOSSARY

EE	Energy efficiency
GCF	Green Climate Fund
KWh	Kilowatt hour
LG	Local government
NDC	Nationally determined contributions
NG	National government
PL	Public lighting
PPP	Public private partnership
TBC	To be confirmed
W-to-E	Waste-to-Energy

For more information, please contact GlobalDF at feedback@globalclearinghouse.org or use the Contact form on the website www.globalddf.org.

ENDNOTES

ⁱ <https://www.nema.go.ke/images/Docs/Media%20centre/Publication/National%20Solid%20Waste%20Management%20Strategy%20.pdf>

ⁱⁱ <https://www.nema.go.ke/images/Docs/Media%20centre/Publication/National%20Solid%20Waste%20Management%20Strategy%20.pdf>

ⁱⁱⁱ <https://www.nema.go.ke/images/Docs/Media%20centre/Publication/National%20Solid%20Waste%20Management%20Strategy%20.pdf>

^{iv} <https://www.nema.go.ke/images/Docs/Media%20centre/Publication/National%20Solid%20Waste%20Management%20Strategy%20.pdf>

^v <https://www.nema.go.ke/images/Docs/Media%20centre/Publication/National%20Solid%20Waste%20Management%20Strategy%20.pdf>

^{vi} <https://africasustainabilitymatters.com/politics-blocks-garissa-waste-to-energy-project/>

^{vii} The ministry develop laws and guidelines for proper management of biomedical wastes in public and private hospitals as well as regulating sector players involved in management of medical waste.

^{viii} <https://www.urbanark.org/evolution-solid-waste-management-policy-landscape-kenya-analysis-evolvement-policy-priorities-and>

^{ix} <https://nairobinews.nation.co.ke/general/nms-to-set-up-a-waste-to-energy-power-plant-in-dandora>

^x <https://nairobinews.nation.co.ke/general/nms-to-set-up-a-waste-to-energy-power-plant-in-dandora>

^{xi} <https://www.businesschief.eu/leadership-and-strategy/vr-holding-ab-develop-25mw-waste-power-plant-kakamega-county>

^{xii} <https://www.cog.go.ke/component/k2/item/186-tourism-and-natural-resources-management-consultative-meeting-and-kenya-accountable-devolution-program-ii>

^{xiii} <https://www.adaconsortium.org/index.php/component/k2/itemlist/category/153-report>

^{xv} <http://www.agusto.co.ke/publications/county-development-funds-in-kenya-to-shrink/>

^{xvii} https://mk0woimaxym3s497uh.kinstacdn.com/wp-content/uploads/2018/10/WOIMA-case-study-decentralized-w2e-power-generation-in-Nairobi-Kenya-2018_10.pdf ;

<https://woimacorporation.com/woima-blog-november-2018-waste-to-energy-the-most-affordable-renewable-energy-2/>

^{xviii} <https://projects.worldbank.org/en/projects-operations/project-detail/P173065c>

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- ^{xxix} <https://www.undp.org/content/undp/en/home/librarypage/environment-energy/mdg-carbon/NAMAs/nama-on-circular-economy-solid-waste-management-approach-for-urb.html#:~:text=NAMA%20on%20Circular%20Economy%20Solid%20Waste%20Management%20Approach%20for%20Urban%20Areas%20in%20Kenya,-Aug%2021%2C%202017&text=Instead%20of%20waste%20being%20collected,and%20towards%20various%20recycling%20practices>
- ^{xxx} <http://documents1.worldbank.org/curated/en/762721583745126806/pdf/Concept-Stage-Program-Information-Document-PID-Financing-Locally-Led-Climate-Action-Program-P173065.pdf>
- ^{xxxi} <https://www.undp.org/content/undp/en/home/librarypage/environment-energy/mdg-carbon/NAMAs/nama-on-circular-economy-solid-waste-management-approach-for-urb.html#:~:text=NAMA%20on%20Circular%20Economy%20Solid%20Waste%20Management%20Approach%20for%20Urban%20Areas%20in%20Kenya,-Aug%2021%2C%202017&text=Instead%20of%20waste%20being%20collected,and%20towards%20various%20recycling%20practices>
- ^{xxxii} <https://cog.go.ke/component/k2/item/66-nordic-ambassadors-visit-ahero-town>
- ^{xxxiii} <https://nairobiassembly.go.ke/motion/authority-for-refinancing-countys-ksh-4-2-billion-loan/>
- ^{xxxiv} Aims to reduce GHG emissions through adoption of circular approaches to waste management and engineered landfills.
- ^{xxxv} <https://www.urbanark.org/evolution-solid-waste-management-policy-landscape-kenya-analysis-evolvement-policy-priorities-and>
- ^{xxxvi} <https://nairobi.news.nation.co.ke/general/nms-to-set-up-a-waste-to-energy-power-plant-in-dandora>
- ^{xxxvii} <https://www.cog.go.ke/component/k2/item/186-tourism-and-natural-resources-management-consultative-meeting-and-kenya-accountable-devolution-program-ii>
- ^{xxxviii} <https://nairobi.news.nation.co.ke/general/nms-to-set-up-a-waste-to-energy-power-plant-in-dandora>
- ^{xxxix} <https://www.businesschief.eu/leadership-and-strategy/vr-holding-ab-develop-25mw-waste-power-plant-kakamega-county>
- ^{xxxx} https://addis.unep.org/projectdatabases/00879/project_general_info
- ^{xxxxi} <https://www.ifc.org/wps/wcm/connect/fc8b6cc6-036f-44f2-b767-08893e7bdcc6/IFC+-+Aligning+Kenya%27s+Financial+System+with+Inclusive+Green+Investment+-+web.pdf?MOD=AJPERES&CVID=l4hM4eq>
- ^{xxxxii} The ministry develop laws and guidelines for proper management of biomedical wastes in public and private hospitals as well as regulating sector players involved in management of medical waste.
- ^{xxxxiii} <https://cog.go.ke/media-multimedia/news-from-counties/505-proposal-to-manage-city-s-waste-tabled>
- ^{xxxxiv} <https://www.cog.go.ke/component/k2/item/186-tourism-and-natural-resources-management-consultative-meeting-and-kenya-accountable-devolution-program-ii>
- ^{xxxxv} <http://www.agusto.co.ke/publications/county-development-funds-in-kenya-to-shrink/>
- ^{xxxxvi} <https://www.eib.org/en/products/mandates-partnerships/mri/index.htm>
- ^{xxxxvii} <https://maarifa.cog.go.ke/resource/supporting-africa-countries-to-access-international-climate-finance>
- ^{xxxxviii} <https://cog.go.ke/media-multimedia/news-from-counties/505-proposal-to-manage-city-s-waste-tabled>
- ^{xxxxix} https://kenya.un.org/sites/default/files/2019-09/Kenya%20Impact%20Investment%20Report_GSGII_May%272019.pdf