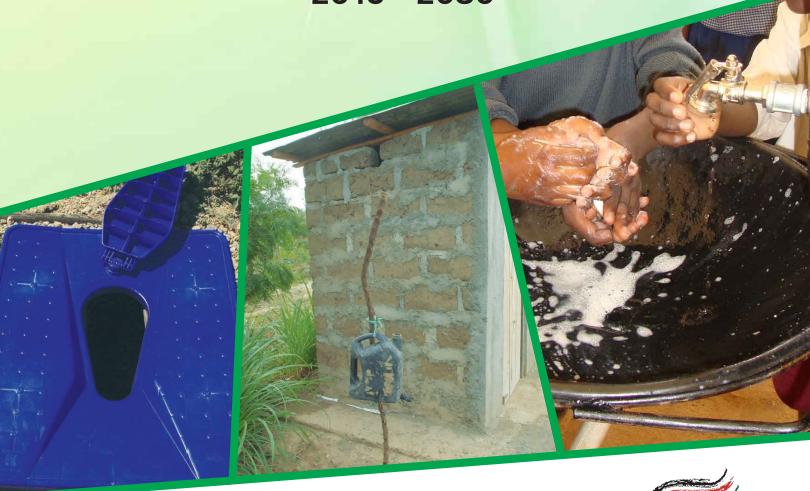


KENYA ENVIRONMENTAL SANITATION AND HYGIENE POLICY

2016 - 2030





KENYA ENVIRONMENTAL SANITATION AND HYGIENE POLICY

2016-2030

TABLE OF CONTENTS

Abbr	eviatio	ns and Acronyms	vii
Defir	nition of	Terms	×
Forev	word		χV
Prefe	ace		xvii
Ackn	owledg	ements	xix
CHA		NE: INTRODUCTION AND BACKGROUND	-
1.1	Introd	uction	-
		ew of the National Environmental Sanitation and Hygiene Policy (NESHP) 2007	
		ale for the Revision of the NESH Policy 2007	3
1.4	Scope	of the KESHP	4
СНА	PTER T	WO: SITUATION ANALYSIS	5
2.1	Overvi	ew	5
2.2	Rural S	Sanitation Situation	8
2.4	Invest	ment in Sanitation	10
2.5	Status	of Sanitation Millennium Development Goals (MDG) in Kenya	11
2.6	The Im	pact of Poor Sanitation Coverage in Kenya	12
СНА	PTER T	HREE: THE POLICY CONTEXT	15
3.1	Introd	uction	15
3.2	The No	itional Policy Context	15
	3.2.1	The new Constitutional Context of the Policy	16
	3.2.2	Kenya Vision 2030	18
	3.2.3	National Health Policy Framework 2012-2030	20
3.3	The Int	ternational Policy Context	20
	3.3.1	Sanitation as a Human Right	20
	3.3.2	From Millennium Development Goals to Sustainable Development Goals	2
	3.3.3	The African Union eThekwini Declaration Commitments	23
	3.3.4	The Sanitation and Water for All High-Level Meetings Commitments	24
СНА	PTER F	OUR: POLICY DIRECTION AND PRINCIPLES	25
4.1	Introd	uction	25
4.2	Sector	Vision, mission and goal	25
	4.2.1	Vision Statement	25
	4.2.2	Mission Statement	25
	4.2.3	Policy Goal	25

4.3	Immut	able Guiding Constitutional Values and Principles	25
	4.3.1	Guiding Governance Principles and Values	26
	4.3.2 (Guiding Leadership Principles and Values	26
	4.3.3 [Directive Principles of State Policy	26
	4.3.4 (Guiding Principles for Public Finance Management	26
4.4	Guidin	g ESH Policy Principles	27
СНА	PTER FI	VE: POLICY STRATEGIES AND MEASURES	31
5.1	Introdu	uction	31
5.2	Policy	Objectives	31
5.3	Descri	ption of Policy Strategies	32
5.4	Policy	Strategy #1: Scaling up Access to Improved Rural and Urban Sanitation	32
	5.4.1	Scaling Up Access to Improved Rural Sanitation	32
	5.4.2	Scaling Up Access to Improved Urban Sanitation	34
	5.4.3	Promotion of Appropriate Technology Options	37
	5.4.4	Sanitation and Hygiene in Schools	39
	5.4.5	Sanitation in Institutions	41
	5.4.6	Sanitation in Healthcare Facilities	42
	5.4.7	Sanitation and Hygiene in Public Places	43
	5.4.8	Field/Outdoor Sanitation	44
	5.4.9	Menstrual Hygiene	45
	5.4.10	Household Water Treatment and Safety	46
	5.4.11	Sanitation in Disaster and Emergency Situations	46
	5.4.12	Environmental Sanitation Education and Promotion	48
5.5	Policy S	Strategy # 2: Assuring clean and healthy environment free from public nuisances	49
	5.5.1	Pollution and Solid Waste Management	50
	5.5.2	Wastewater Management	50
	5.5.3	Treatment and Disposal of Waste	52
	5.5.4	Management of Industrial Wastes	53
	5.5.5	Management of Healthcare Waste	53
	5.5.6	Management of e-Waste	55
	5.5.7	Cleansing and Maintenance of a Clean and Healthy Environment	57
	5.5.8	Protection of Wetlands and Water Courses from Indiscriminate Disposal of Wastes	57
	5.5.9	Reducing the Negative Impact of Poor Environmental Sanitation	57
	5.5.10	Food Safety and Hygiene	58
		Vector and Pest Control	59
		Disposal of the Dead	59
		Control of Rearing and Straying of Animals	60

5.6	Policy	Strategy #3: Fostering Private Sector Participation and Investment	
	in Sani	tation	60
	5.6.1	Enhancing Private Sector Participation	60
	5.6.2	Sanitation Marketing	61
5.7	Policy	Strategy #4: Building Enabling Legal and Regulatory Environment for Sanitation	62
	5.7.1	Strengthening Legislative and Regulatory Environment for Sanitation	62
	5.7.2	Sanitary Inspection and Law Enforcement	64
	5.7.3	Strengthening Standardisation and Supply Chain Systems	65
5.8	Policy	Strategy #5: Building Governance and Leadership Capacity for Sanitation	66
	5.8.1	Governance, Leadership and Institutional Capacity Development	66
	5.8.2	Capacity Building, Education, Training, and Skills Development for Sanitation	67
	5.8.3	Rewarding Best Performance and Practices	68
5.9	Policy	Strategy #6: Sustainable Sanitation Financing and Investment	70
	5.9.1	Sanitation Financing Approach	70
	5.9.2	Key Sources of Sanitation Funding and Investment	71
5.10	-	Strategy #7: Establishing an Effective Research and Development Framework	
	for Sar	nitation	77
5.11	Policy	Strategy #8: Establishing and Strengthening Monitoring and Evaluation	
	(M&E)	Systems for the Sanitation Sector	79
CHA	PTER S	IX: INSTITUTIONAL FRAMEWORK	81
6.1	Introd	uction	81
6.2	Distrib	oution of ESH Functions within the Devolved and Decentralised Units	81
	6.2.1	National Level	81
	6.2.2	County Level	82
	6.2.3	Urban (City and Town) Level	84
	6.2.4	Sub-County Level	86
	6.2.5	Ward Level	86
	6.2.6	Location and Sub-Location Levels	86
	6.2.7	Community and Village Level	87
	6.2.8	Household Level	88
6.3	Roles	and Responsibilities of the Sanitation Sector Stakeholders/Actors	88
	6.3.1	Roles and Responsibilities of the Principal Sanitation Public Sector Institutions	s 88
	6.3.2	Role and Responsibilities of the Allied Public Sector Agencies	100
	6.3.3	Roles and Responsibilities of Allied Non-State Sector Actors	100
	6.3.4	The Role of Development Partners	103
	6.3.5	Role of Households	104
	6.3.6	Role of Citizens/Individuals	104
	6.3.7	Inter-agency and Intergovernmental Coordination	105

CHAPTE	R SEVEN: IMPLEMENTATION FRAMEWORK	107
7.1 Int	roduction	107
7.2 Pol	icy Planning	107
7.3 Pol	icy Implementation Framework	107
7.4 Pol	icy Monitoring and Evaluation Framework	108
7.5 Pol	icy Review	108
REFEREN	NCES	109
LIST OF	FIGURES AND TABLES	
List of Fi	gures	
Figure 1:	County Access Improved Sanitation and Open Defecation Situation in Kenya	6
Figure 2:	Sanitation Type by Wealth Quintile (DHS, 2010)	6
Figure 3:	County Poverty Gap and Access to Improved Sanitation	7
Figure 4:	Sanitation Coverage According to Poverty Gap Index Rank (Data source: Census	;
	Data 2009 + Commission on Revenue Allocation)	8
Figure 5:	Composition (in percentage) of Kenya's Solid Waste	10
Figure 6:	Trends Towards Universal Access to Improved Sanitation by Different	
	Acceleration Rates	12
Figure 7:	Millennium Development Goals	21
List of To	ables	
Table 1:	Acceleration Required to Meet the Universal Access Targets by 2040	11
Table 2:	Leading Risk Factors and Contribution to Mortality and Morbidity (WHO 2009)	13
Table 3:	Leading Causes of Deaths, and Disabilities in Kenya	14
Table 4:	Distribution of Sanitation Related Functions Between National and County	
	Governments	18
Table 5:	Sanitation Technology Options	38
Table 6:	Essential Environmental Sanitation and Hygiene Services	95

(>) ABBREVIATIONS AND ACRONYMS

AMCOW The African Ministers' Council on Water

AU African Union

ASAL Arid and Semi-Arid Land

BCC Behaviour Change Communication
BOD Biochemical Oxygen Demand
BOT Build Operate and Transfer

BOO Build, Own, Operate

BOOT Build, Own, Operate, Transfer CSOs Civil Society Organizations

CESHSIPs County Environmental Sanitation and Hygiene Strategic and Investment Plans

CBOs Community-Based Organizations

CHEWS Community Health Units through the Community Health Extension Workers

CPWD County Public Works Department
CLTS Community-Led Total Sanitation
CSOs Civil Society Organizations

CESHSF County ESH Stakeholders Forum

CEDAW Convention on the Elimination of All Forms of Discrimination against Women

CRC Convention on the Rights of the Child

DEHS Department of Environmental Health and Sanitation

DALYs Disability Adjusted Life Years

ECDE Early Childhood Development Education
EMCA Environmental Management Coordination Act
ESSAPs Environmental Sanitation Strategy and Action Plans

Ecosan Ecological Sanitation
E.coli Escherichia Coli

ESH Environmental Sanitation and Hygiene
ESIA Environmental Sanitation Impact assessment

FBOs Faith-Based Organizations
GDP Gross Domestic Product

GIS Geographic Information System

HWTS Household Water Treatment and Safety

ICC Inter-Agency Coordinating Committee

ICESCR International Covenant on Economic, Social and Cultural Rights

IFRC International Federation of the Red Cross/Red Crescent

IQ Intelligence Quotient
JMP Joint Monitoring Program

KBS Kenya National Bureau of Statistics
KEMRI Kenya Medical Research Institute
KIRDI Kenya Industrial Research Institute

KESHSF National Environmental Sanitation and Hygiene Strategic Framework

KESHP Kenya Environmental Sanitation and Hygiene Policy

KES Kenya Shillings

KEPH Kenya Essential Package of Health
 MCA Member of County Assembly
 MDGs Millennium Development Goals
 M&E Monitoring and Evaluation

MOH Ministry of Health
MP Member of Parliament

NESHRDI National ESH Research and Development Institute

NESCRA National Environmental Sanitation Coordination and Regulatory Authority

NEMA National Environment Management Authority

NESHISF National Environmental Sanitation and Hygiene Intergovernmental and Stakeholders Forum

NGOs Non-Governmental Organizations

NASF National Sanitation Fund

NWSS National Water Services Strategy

ODF Open Defecation Free

O&M Operations and Maintenance
PPIP Pro-Poor Implementation Plan
PTAs Parent Teachers Associations
PPPs Public-Private Partnerships
SDGs Sustainable Development Goals

SSIPs Small Scale Independent Providers/entrepreneurs
SHSIPs Sanitation and Hygiene Strategic and Investment Plans

SCHMT Sub-County Health Management Team

TWGs Technical Working Groups
UDDTs Urine Diverting Dry Toilets

UNEP United Nations Environment Programme

UNICEF United Nations Children's Fund

USESIFP Urban Strategic Environmental Sanitation Investment and Financing Plan UESHSAPs Urban Environmental Sanitation and Hygiene Strategic and Action Plans

USD United States Dollar

VIP Ventilated Improved Pit Latrine
WHO World Health Organization
WASH Water and Sanitation Hygiene
WASREB Water Services Regulatory Board

WRMA Water Resources Management Authority

WSBs Water Service Boards

WSP Water and Sanitation Programme

WSP-AF Water and Sanitation Programme Africa Region

WSPs Water Service Providers

WSSC Water and Sanitation Concept WSSP Water Sector Strategic Plan

DEFINITION OF TERMS

Activated sludge: This refers to an aqueous suspension of micro-organisms cultivated in a waste treatment process to break down organic matter into carbon dioxide, water, and other inorganic compounds.

Adequate sanitation: This refers to a sanitation facility that provides privacy and separates human excreta from human contact.

Advanced (tertiary) treatment: This is the treatment step added after secondary treatment stage to remove specific pollutants, such as nutrients, suspended solids, organics, heavy metals or dissolved solids (such as salts).

Basic sanitation: This refers to access to, and the use of, excreta and wastewater facilities to ensure a clean and healthy environment within the household level and any other living environment.

Biogas: Gas consisting mainly of methane produced by anaerobic digestion of organic waste.

Composting latrine/composting toilet: These facilities - also called biological toilets, dry toilets and waterless toilets-.contain and control the composting of excreta, toilet paper, carbon additive, and, optionally, food wastes.

Desludging: This refers to the removal of accumulated sludge from septic tanks and aquaprivies.

Disability Adjusted Life Years (DALYs): Public health metric of healthy life years lost to disease due to both morbidity and mortality, adjusted for disability.

Disinfection: The inactivation of disease-causing organisms using chemicals, radiation (including solar), heat or physical separation processes.

Ecological Sanitation (Ecosan): Sanitation the design of which strives to protect ecosystems, and treats excreta as a valuable resource to be recycled. The term is widely understood to reflect this general approach to excreta management, but Ecosan technology often implements the approach through the separation of urine and faeces at the level of the individual toilet.

Effluent: Means any liquid or other fluid of domestic, agricultural, trade or industrial origin treated or untreated and discharged directly into the environment.

Enabling Environment: This comprises laws, policies, financial instruments, formal organizations, community organizations and partnerships which together support and promote needed changes in hygiene practices and access to technology.

Environmental hygiene: The maintenance of a clean and healthy environment in order to prevent disease.

Environmental sanitation: The control of environmental factors that form a link in disease transmission and have an impact on human health. It constitutes a wide range of interventions designed to create and maintain an environment conducive to human health; reduce people's exposure to diseases by providing a clean environment in which to live; and measures to break the cycle of diseases. This includes sanitation (defined as the infrastructure and services required for the safe management of human excreta) but also includes hygienic management and/or disposal of human and animal excreta, refuse, and wastewater, solid waste management, water and wastewater treatment, industrial waste treatment, drainage of surface water and sullage, washing facilities for personal and domestic hygiene, food safety, housing and workplace sanitation, control of disease vectors and air pollution control. Sanitation involves appropriate behaviours as well as the availability of suitable facilities, which work together to form a hygienic environment.

Excreta: Faeces and urine.

Faecal sludge: Faecal sludge is the solid or settled contents of pit latrines and septic tanks. Faecal sludge differs from sludge produced in municipal wastewater treatment plants. The physical, chemical and biological qualities of faecal sludge are influenced by the duration of storage, temperature, intrusion of ground water or surface water in septic tanks or pits, performance of septic tanks, and tank emptying technology and pattern.

Faecal-oral transmission: The passage or transfer of disease whereby pathogens in fecal particles pass from one host to another via the mouth.

Food hygiene: Keeping food clean and safe in the entire pre-consumption chain in order to prevent disease.

Gender: Gender entails the social construction of roles and relationships of women and men, including how they cooperate and share work, make decisions, and exercise control in projects and programmes.

Grey water: Water from the kitchen, bath, laundry and other domestic activities which should not normally contain much excreta.

Ground water table: The level at which the subsoil is saturated with water.

Ground water: This refers to water found below ground level in the soil.

Hygiene: The term refers to the set of practices associated with the preservation of good health and healthy living. It consists of behaviors related to the safe management of human excreta, such as hand-washing with soap or the safe disposal of children's faeces. Hygiene as a method of using cleanliness to prevent disease and thus determines how much impact water and sanitation

infrastructure can have upon health, because it reflects not the construction, but the use, of such facilities. Good hygiene is the practice of keeping oneself and one's surroundings clean, especially in order to prevent illness or the spread of disease. It therefore infers cleanliness relating to good health.

Hygiene Education: An element of hygiene promotion concerned with educating people about how diseases spread; for example through the unsafe disposal of excreta or by not washing hands with soap after defecation.

Hygiene Promotion: A planned and systematic approach to preventing sanitation-related diseases through the widespread adoption of safe hygiene practices. It aims to enable people to take action to prevent or mitigate water, sanitation and hygiene related diseases. It begins with and is built on what local people know, do and want. It entails encouraging people to adopt behaviours that embody safe hygiene practices the form the basis of cleanliness and good health.

Improved sanitation: Improved sanitation means safe disposal and management of waste to prevent human exposure and environmental hazards. As defined by the Joint Monitoring Programme for water and sanitation of the WHO and UNICEF, it includes connection to public sewer, to septic system, pour-flush latrine, simple pit latrine and ventilated improved pit latrine.

Improved sanitation facility: An improved sanitation facility is one that hygienically separates human excreta from human contact, thus creating barriers to prevent the transmission of diseases. To be effective, the facility must be correctly constructed and properly maintained in a way that confers maximum health benefits to the user. An improved sanitation facility includes:

- a) Flush/pour flush to piped sewer system, septic tank, and pit latrine.
- b) Ventilated improved pit (VIP) latrine.
- c) Composting toilet.
- d) Urine Diverting Dry Toilet (UDDT)
- e) Cartridge Based Toilets (CBT)
- f) A simple improved pit latrine that has all of the following features:
 - The latrine floor is raised, smooth and impervious for it to be easily cleaned. It should leave no cracks. Where there's no slab the floor should slope towards squat hole to facilitate effective draining of water during cleaning.
 - The slab is cleanable, raised and impervious.
 - There is a well-fitting lid that does not allow flies into the pit.
 - The superstructure is offered maximum privacy with a roof to prevent rain from damaging the latrine floor.
 - The latrine should be at a distance of at least 40m from water sources and pit depth should be a minimum of 2m above the highest ground water levels.

In urban and peri-urban areas, the facility should be embedded in a functioning sanitation system, where the excreta from the toilet is properly stored, transported, treated, disposed or reused in a manner which is not hazardous to human health and not detrimental to the environment and should not contaminate water sources.

Improved sanitation and hygiene: This encompasses the promotion of skills and practices that enable individuals, families and communities to have a clean and healthy environment. The concept focuses on proper disposal (management) of human excreta and keeping drinking water safe to the point of use and adopting high levels of personal, domestic, public and food hygiene. It also focuses on ensuring safe management of solid and liquid wastes, including healthcare wastes and protecting households against vectors and rodents, especially those of public health importance.

Night soil: Human excreta transported without flushing water.

Off-site sanitation: This refers to the system of sanitation whereby excreta is removed from the place occupied by the dwelling and its immediate surroundings.

On-site sanitation: This refers to the system of sanitation whereby the means of human excreta collection, storage and treatment (where this exists) are contained within the place occupied by the dwelling and its immediate surroundings. Examples are the use of pit latrines and septic tank systems with soak away of liquid waste.

Organic matter: This includes materials which come from animal or vegetable sources. Organic matter generally can be degraded by micro-organisms.

Pathogens: Disease causing organisms. The main organisms that pose a threat to health related to poor sanitation are pathogenic bacteria, viruses, parasitic protozoa and helminths excreted in large numbers from infected individuals. Many of these organisms have low infectious doses (helminths, protozoa and viruses) which means that only small quantities of infectious agents are needed to infect a new host (the infective dose varies between organisms and with respect to the susceptibility of the exposed individual).

Personal hygiene: Keeping the body clean to prevent disease.

Pit latrine: Latrine with a pit for collection and decomposition of excreta and from which liquid infiltrates into the surrounding soil.

Pour-flush latrine: Latrine that depends for its operation of small quantities of water, poured from a container by hand, to flush away faeces from the point of defecation.

Primary treatment: Initial wastewater treatment process to remove solids which settle by sedimentation and floating objects by physical screening and skimming.

Sanitation: Sanitation is the hygienic means of preventing human contact from the hazards of waste to promote health and environmental integrity. It is generally used to refer to the provision of facilities and services for the safe disposal of human and faeces and urine. It can also be used to refer to the maintenance of hygienic conditions and healthy environments through services such as garbage collection and wastewater disposal to prevent the transmission of water and sanitation related diseases.

Sanitation marketing: The use of marketing techniques to promote the construction and use of sanitation facilities. Sanitation marketing considers the target population as customers. It borrows private sector experience to develop, place and promote an appropriate product: in this case the product is a toilet and excreta disposal system, be it sewerage connection, pit latrine or other mechanism. Critically the facilities must be readily available at an affordable price in the right place.

Sanitation Promotion: Activities undertaken to stimulate household demand for, and the supply of, the sanitation hardware necessary to maintain a healthy environment: latrines, toilets, sewer and connections.

Secondary treatment: Wastewater treatment step following primary treatment to remove biodegradable dissolved and colloidal organic matter by using biological processes, such as activated sludge, trickling filters, or various kinds of ponds and lagoon systems.

Septage: Faecal sludge removed from septic tanks.

Septic Tank: A disposal system for human excreta where the waste from water closets is disposed in an underground tank that allows settlement of sludge and disposes the liquid waste into a subsurface drain. The underground tank collects and treats wastewater by a combination of solids settling and anaerobic digestion. The effluents may be discharged into soak pits or small-bore sewers, and the solids have to be pumped out periodically. Emptying septic tank sludge and final disposal of this septage is a challenge to many countries.

Sewage: Human excreta and wastewater, flushed along a sewer pipe.

Sewerage: A system of sewer pipes, manholes and pumps for the transport of sewage.

Sludge: A mixture of solids and water deposited on the bottom of septic tanks and ponds. The term sewage sludge is generally used to describe residuals from centralised wastewater treatment, while the term septage is used to describe the residuals from septic tanks.

School WASH: This entails a school facility having adequate safe drinking water, adequate and sanitary toilets and urinals to the ratio/proportion of pupils and age cohort, adequate handwashing facilities, properly maintained compound, well-ventilated classrooms and other living facilities including kitchen and dining facilities.

Social marketing: Social marketing is used when satisfying needs and wants is both socially and commercially beneficial to consumers and producers of goods and services. It is therefore socially advantageous to engineer in order to meet demand.

Sullage: Domestic dirty water not containing excreta. Sullage is also called grey water.

Suspended solids: Solids that are in suspension in water or other liquids.

Total sanitation: This is where all people or all community members demand, develop and sustain a totally sanitised, hygienic and healthy environment for themselves (in partnership with drivers and stakeholders) by erecting barriers to prevent the transmission of diseases, primarily from faecal contamination. It is applied at all levels from household, village, sub-county to county levels. Total sanitation is complete eradication of all indiscriminate and unhygienic practices in the disposal of excreta, drainage and litter.

Total solids: The sum of dissolved and suspended constituents in a sample usually stated in milligrams per litre or percent.

Urine Diverting Dry Toilet (UDDT): A source-separated solution that ensures the safe capture of fecal sludge into sealed cartridges, containers, or holding tanks. A urine-diverting toilet enables easy usage for residents. Such structures work extremely well in slums, urban areas, and periurban areas with high density populations.

Vector: Insect or organism that carries disease from one animal or human to another (such as a mosquito, fly, or bilharzia-infected snail.)

VIP latrine: (Ventilated Improved Pit latrine.) A VIP is a pit latrine with a slab and a ventilation pipe to remove foul smells from the pit and vent them to the air above the superstructure roof line. A fly screen is added to the top of the ventilation pipe to control flies.

Wastewater: The spent or used water from homes, communities, farms and businesses that contain enough harmful material to damage the water's quality. Wastewater includes both domestic sewage and industrial waste from manufacturing sources.

FOREWORD

The Kenya Environmental Sanitation and Hygiene Policy 2016-2030 is the outcome of reviews to address limitations of the National Environmental Sanitation and Hygiene Policy published in 2007. The policy takes full cognisance of the devolution of most sanitation functions and services to the 47 County Governments vide the Fourth Schedule of the Constitution of Kenya 2010. A result of nation-wide consultations and validation meetings, this new policy takes a rights based approach and redirects our efforts towards achieving the Kenya Vision 2030 and the global Sustainable Development Goals (SDGs).

The policy commits the Government of the Republic of Kenya at both National and County levels to pursuing a robust strategy that will not only enable all Kenyans to enjoy their right to highest attainable standards of sanitation but also to a clean and healthy environment as guaranteed by the Constitution of Kenya 2010. The policy therefore focuses on a range of complementary strategies devoted to ensuring universal access to improved sanitation and clean and healthy environment. Ultimately, it is the goal of this policy to ensure better health, dignity, social well-being and quality of life for all the people of Kenya. To achieve this grand vision, the policy puts emphasis on increasing public and private sector investment through public-private partnerships. In this, the policy aims to mobilize all available resources — public and private, community and individual — in pursuit of our collective national vision of transforming Kenya into "a newly-industrialized, middle-income country providing a high quality of life to all its citizens in a clean and secure environment."

The policy articulates and clarifies the roles and responsibilities of the many stakeholders and agencies involved in the sanitation sector, spelling out the national and county Governments commitments to increasing investment in sanitation and creating an enabling environment. To address institutional fragmentation and financing bottlenecks, the policy provides for the establishment of the National Environmental Sanitation Coordination and Regulatory Authority (NESCRA) and the National Sanitation Fund (NASF). We indeed acknowledge that conducting 'business as usual' given the expanded scope of sanitation and hygiene function as both a right and service will neither enable us accelerate service delivery nor meet our constitutional and international obligations.

The policy has been developed by the Ministry of Health through the Division of Environmental Health, in collaboration with line Government Ministries, Departments and Agencies (MDAs), as well as other national and international stakeholders. In particular, I would like to express my deep appreciation to the World Bank Group's Water and Sanitation Program Africa Region (WSP-AF) for providing technical support to the Ministry of Health and the County Departments of Health in reviewing the National Environmental Sanitation and Hygiene Policy 2007 and developing and making it possible for this Kenya Environmental Sanitation and Hygiene Policy 2016-2030 to be published.

Finally, it is envisaged that this policy will provide a critical reference to all agencies, both public and private that are, or will be, actively working towards achieving our Vision 2030 by ensuring that all Kenyans enjoy their guaranteed constitutional right to improved sanitation and a clean and healthy environment. To ensure its effective implementation therefore, a national environmental sanitation and hygiene strategy (NESHS), National Environmental Health and Sanitation Bill and county environmental sanitation and hygiene strategic and investment plans (CESHSIPs) will be prepared.

Dr. Cleopa Mailu, EBS

CABINET SECRETARY

> PREFACE

The Kenya Environmental Sanitation and Hygiene Policy (2016-2030) marks a milestone in the country's movement towards universal access to improved sanitation and a clean and healthy environment in the wake of the new Constitution of Kenya 2010 and the adoption of the 2030 Agenda for Sustainable Development on 25th September 2015. In developing this policy, the Ministry of Health has taken cognisance of the new governance structure in the country anchored on the devolution of both political and economic power to 47 newly-created counties. The new dispensation requires not just a shift in our approach to doing sanitation business but also new forms of engagement with partners within the new devolved system of government. The Government therefore understands the importance of engaging all stakeholders if we are to enable all Kenyans enjoy their rights to high quality sanitation services.

Indeed, the Government, through the Constitution 2010 and the Kenya Vision 2030, has created an enabling and secure environment for all stakeholders to make their contributions to making a reality, our collective aspiration to enabling every Kenyan enjoy high quality of life in a clean, secure and healthy environment. We have therefore in this policy, set for ourselves the higher goal of achieving and sustaining universal access to improved sanitation by 2030. To achieve this goal, the policy will focus on eight key strategies as follows:

- a) Scaling up access to improved rural and urban sanitation.
- b) Assuring clean and healthy environment free from public nuisances.
- c) Fostering private sector participation and investment in sanitation.
- d) Building governance and leadership capacity for sanitation.
- e) Sustainable financing and investment for sanitation.
- f) Building enabling legal and regulatory environment.
- g) Establishing an effective research and development framework for sanitation.
- h) Strengthening monitoring and evaluation systems for the sanitation sector

Let us all join hands as we deepen and strengthen our resolve to rid Kenya of open defecation and to assure every Kenyan of sustainable access to improved sanitation and a clean and healthy environment while seeking innovative ways of sustaining our achievements throughout Kenya. Indeed, if we pull together, our collective vision of transforming Kenya into a globally competitive, prosperous, clean and secure country with a high quality of life for all by 2030 will be a reality.



Dr. Nicholas Muraguri PRINCIPAL SECRETARY

ACKNOWLEDGEMENTS

This Kenya Environmental Sanitation and Hygiene Policy is the result of joint efforts, contributions and guidance of the Ministry of Health, the World Bank Group's Water and Sanitation Program Africa Region (WSP-AF), the Environmental Sanitation and Hygiene Inter-Agency Coordinating Committee (ESH-ICC), all the Technical Working Groups (TWGs), all the 47 County Health Departments, Ministry of Water and Irrigation, Ministry of Environment and Natural Resources, the National Environmental Management Authority (NEMA) and Water Services Trust Fund (WSTF).

Many thanks to Ministry of Health CLTS Hub Team comprising of Janet Mule, Benjamin Murkomen, Ibrahim Basweti, Lillian Mbeki and Sharon Lipesa for their critical support throughout the process of developing this Policy. The Ministry of Health also wishes to acknowledge with deep gratitude the contribution of key members of the Technical Working Groups and partners including Mrs. Catherine Mwango (KWAHO), Prof. Mohamed Karama (UON/KEMRI), Ms Elizabeth Wamera (WSSCC), Mr. Daniel Kurao (AMREF), Mr. Tobias Omufwoko (Wash Alliance Kenya), Mr. Fanuel Nyaboro (SNV), Ms Beverly Mademba (WASH United), Ms Gertrude Salano (WSUP), Ms Beatrice Wango (PS Kenya), Mr. Samuel Muthinji (APHOK) and Mr. Shiva Singh (UNICEF) among others.

Special thanks are due to Dr. John Kariuki and Mr. Jackson Muriithi, Ag. Deputy Director of Public Health for their unwavering guidance and support throughout the process; Glenn Pearce-Oroz, Principal Regional Team Leader, Dr. Yolande Coombes, Technical Team Leader, Lewnida Sara, Operations Analyst, Sophie Hickling and Josephine Osea all of the World Bank Group's Water and Sanitation Program Africa Region (WSP-AF) for their technical and administrative support. Gratitude for the invaluable contributions of the Consultants, Dr. Charles Oyaya (Team Leader), Mr. Paul Mbanga (Policy and Strategy), Mr. Dan Juma (Legislation) and Dr. Henrietta Bullinger (Enabling Environment) for their able technical facilitation of the process of development of this Kenya Environmental Sanitation and Hygiene Policy.

Further, the Ministry of Health on behalf of the people of Kenya is grateful to the World Bank Group's Water and Sanitation Program, Africa Region (WSP-AF) for providing financial and technical support that made the development of this policy possible.

It is from the very vibrant and selfless engagements of various stakeholders throughout the country including the 47 County Governments of Kenya that we have put forth a vision, setting us on a trajectory that will ensure achievement of both our national and international sanitation commitments.

Kepha Ombacho, PhD, MBS

Ag. DIRECTOR, PUBLIC HEALTH

DIVISION OF ENVIRONMENTAL HEALTH

(>) INTRODUCTION AND BACKGROUND

1.1 Introduction

Sanitation is a basic necessity that contributes to better human health, dignity and quality of life. The economic and social benefits of sanitation interventions create more time for productive pursuits, higher productivity, better performance at school and work, lower medical costs. Closer access leads to a better living environment, dignity, safety, convenience, comfort and status. However, in Kenya basic sanitation services are not accessible to the majority of the population. The result is that the poor are deprived of decent and dignified lifestyles leading to deterioration of health, wellbeing and human environment.

The Kenya Environmental Sanitation and Hygiene Policy (KESHP) 2016-2030 provides broad guidelines to both state and non-state actors at all levels to work towards universal access to improved sanitation leading to improved quality of life for the people. Primarily, the KESH policy aims to increase the proportion of the population with access to improved sanitation to 100 percent by 2030 and ensure a clean and healthy environment for all in Kenya. The development of KESHP 2016-2030 is a result of extensive policy review and participatory stakeholder consultations and validation meetings held throughout the country.

1.2 Overview of the National Environmental Sanitation and Hygiene Policy (NESHP) 2007

The National Environmental Sanitation and Hygiene Policy (NESHP) launched in 2007 envisioned an enabling environment motivating all Kenyans to improve their hygiene behaviour and environmental sanitation through access and support to enjoy a dignified quality of life in a hygienic and sanitary environment free from suffering ill health caused by poor sanitation. In contribution to meeting the Millennium Development Goals (MDGs) by 2015, the NESH policy aimed to ensure that:

- a) All households would be educated and made aware of the importance and need for improved Environmental Sanitation and Hygiene (ESH) practices for improved health, resulting in positive changes in behaviour.
- b) Every school, institution, household, market and other public places would have access to, and make use of, hygienic, affordable, functional, and sustainable toilet and hand-washing facilities.
- c) All premises, dwellings and their immediate surroundings would be clean and free from waste and unpleasant odours, and will have adequate drainage.
- d) The burden of environmental sanitation and hygiene related diseases would be drastically reduced.

To effect widespread behaviour change and improvement of environmental health and hygiene practices, the policy identified the following key building blocks:

- a) A nationwide gender and culture-sensitive campaign for hygiene promotion, and marketing for positive behaviour change and household demand for improved health.
- b) Information on appropriate safe sanitation options with clear implications to aid community and household choices.
- c) Training and support for artisans and operators of sanitation facilities, assisting them to make sanitation improvement into a viable and attractive investment for households.
- d) Clear standards and guidelines for the provision or improvement of environmental sanitation and hygiene.
- e) Training and support for public health officers, technicians, officials, and community workers to facilitate and monitor environmental sanitation and hygiene improvements.
- f) Recognition of the Ministry of Health as the national lead agency for environmental sanitation and hygiene as well as recognition of the Ministry of Environment, Water and Natural Resources as a key partner in achieving water and sanitation goals.
- g) An efficient and effective mechanism to ensure the coordination and active participation of all ESH sector players.
- h) Prioritized and increased commitment of public funds for ESH activities.
- i) Consistent public and private finance policies to enhance ESH priorities.
- j) Credit arrangements for households and small service providers.

The NESH policy emphasized on investing resources towards sanitation and hygiene to break the cycle of poverty and disease in rural and urban areas. The NESH Policy specifically addressed issues of access to and use of hygienic, affordable, functional, and sustainable improved latrines and hand-washing facilities. It referred to safe and sound waste management practices and a reduction to the burden of environmental sanitation and hygiene-related diseases.

The policy recognized the need for a people-centred and national participatory approach to sanitation. The policy outlined the following approaches to promote good sanitation and hygiene:

- The use of participatory approaches or methodologies.
- Communication approaches incorporating tested household health education messages.
- Development of training tools and promotional materials.
- Conducting campaigns, exhibitions, partnerships with the media.
- A national sanitation week.

The policy discouraged sanitation subsidies. The 2007 ESHP stated that household subsidies from the government should only occur in the context of a clear national policy.

To achieve its objectives, the NESH Policy outlined a number of strategies including:

- a) Hygiene promotion and sanitation marketing with increased budgetary provision for ESH campaigns on hygienic practices, social and cultural factors, lifestyles and environmental awareness and engagement with community members as decision-makers.
- b) Improving technology choices for better information regarding alternative technologies suiting the needs and ability of the government and communities. The corresponding management requirements needed to be cost-effective, affordable and appropriate to the needs of children, women, men, displaced people and the physically challenged, as well as environmentally-friendly and sustainable.
- c) Strategic Planning through the development of long-term service delivery plans especially in the urban jurisdictions or local authorities.
- d) Promoting clean and healthy environment free from pollution and its negative effects on human health and technologies that ensure a healthy and pollution-free environment for present and future generations, with environmentally sound sanitation systems.
- e) Job creation through employment opportunities including labour intensive construction, sustainable livelihoods and long-term entrepreneurial activities.
- f) Sanitation financing including government budgetary allocations from own funds or borrowing, household contributions to cover the cost of providing, improving and maintaining environmental sanitation and hygiene facilities, NGOs and community-based organizations funding, donor funding; private sector financing; and establishment of a sanitation trust fund to support ESH policy implementation.
- g) Capacity building through education, training, and skills development for development of sanitation facilities and services taking into account the need to accelerate and expand formal and structured training and education programmes.

1.3 Rationale for the Revision of the NESH Policy 2007

Although the NESH policy has effectively guided stakeholders in the delivery of sanitation and hygiene services and programmes since its launch in 2007, the Constitution of Kenya 2010 brought fundamental changes in governance, policy and service delivery environment that requires realignment of the existing legislative and policy instruments. Under the environmental and sanitation rights guaranteed in Articles 42 and 43 (b) of the Constitution, the state is required to take legislative and policy measures including setting standards to achieve the progressive realisation of the rights to ensure their widest possible enjoyment.

Functionally, the Fourth Schedule Part II Articles 2(c) (d) (f) (g) and 11(a) (b) of the Constitution devolves most sanitation functions and services to the 47 County Governments, while the National Government retains responsibility for national policy, training, capacity building, technical assistance and standards formulation. The NESH Policy 2007 has been revised and re-aligned to fit with the Constitution, the devolved system and Kenya Vision 2030. It is also revised to

align it with the Kenya Health Policy Framework (2012-2030) and Kenya's regional and global commitments. The revision of the NESH policy takes into account the declaration of a clean and healthy environment and sanitation as guaranteed human rights, the devolution of sanitation functions and the changing global context of development.

The revised policy seeks to re-examine and deal more effectively with the societal, policy, structural and systemic bottlenecks leading to persistent underlying causes of poor environmental sanitation and hygiene and its vital link to health and socio-economic development. These bottlenecks include poor perception of sanitation, low sanitation priority in the national development agenda, low public investment in sanitation, institutional fragmentation; inadequate multisectoral coordination mechanisms, inadequate information management system, low sanitation and hygiene awareness, insufficient institutional, operational and technical capacity, inadequate appropriate technology solutions, weak research and development systems and cultural beliefs and practices among others.

1.4 Scope of the Kenya Environmental Sanitation and Hygiene Policy

The KESHP proposes a range of complementary activities including the provision of sanitation services and maintenance of sanitary facilities for proper collection, treatment and environmentally sound disposal of liquid and solid wastes, water treatment and safety, promotion of hygiene practices, public education, sanitation marketing, regulation and legislation supported by clearly mandated institutions, sustainable financing and research and development.

The KESH policy emphasises the systematic collection of data on wastes from all sectors of the economy to support research and development to meet the challenges of managing wastes associated with Kenya's growing economy, rapid urbanization and the rapidly changing lifestyles. The policy supports building of international, national, county and community partnerships with the private sector and civil society through effective public sector facilitation, coordination and investment.

The KESH Policy covers urban and rural areas including households and local institutions such as schools and other educational institutions, health facilities, religious institutions, public institutions such as prisons, public places including bus stops, markets and beaches, industrial plants, commercial premises, plantations and cultural and recreational centres such as hotels and recreational centres.

SITUATION ANALYSIS

2.1 Overview

The Ministry of Health estimates that in 2010, almost half of rural Kenyans did not have access to even basic sanitation. In terms of improved sanitation, access has barely improved since 1990 with a small increase from 25 percent in 1990 to 29 percent in 2013. Great variations in sanitation coverage however, exist in different parts of the country, with low coverage closely linked to high poverty levels. Formally, planned urban areas are better served than rural areas, urban slums, and informal settlements. Regional disparities also prevail with a lower than national average coverage rate found especially in Arid and Semi-Arid Land (ASAL) and peri-urban areas.

2.2 Rural Sanitation situation

According to the Joint Monitoring Programme, only 32 percent of the rural population had access to improved sanitation of which 72 percent predominantly consisted of simple pit latrines providing varied degrees of safety, hygiene and privacy. Open defecation is still practiced in Kenya despite the government's ambitious Open Defecation Free (ODF) Rural Kenya 2013 Campaign Roadmap. Overall, the national open defecation rate is about 14 percent, which masks massive regional disparities. In some counties, open defecation remains the norm with the northern counties hardest hit with Turkana (82.2 percent), Wajir (76.7 percent) and Samburu (73.4 percent). Even in counties with lower rates of open defecation, children's faeces are often not contained, due to parental perception that children may fall in latrines, and also the perception that children's faeces are harmless. Some adults also continue to routinely defecate in the open at night and during the rainy season. Therefore the true rates of open defecation may be higher. Figure 1 shows the county access to improved sanitation and the prevalence of open defection in Kenya.

32%

Percentage of the rural population with access to improved sanitation of which 72 percent predominantly consist of simple pit latrines providing varied degrees of safety, hygiene and privacy

¹ Improved sanitation includes flush, pour flush toilets connected to a piped system, septic tanks, VIP latrines and pit latrines)

² Joint Monitoring Programme (JMP) Kenya country info, 2013

³ High Level Meeting (HLM) 2012, Statement of Commitments

⁴ Joint Monitoring Programme (JMP) Kenya country info, 2013

⁵ Ipsos Synovate. "Formative Research Conducted for 'Selling Sanitation' initiative." Unpublished, 2013. Nairobi: World Bank's Water and Sanitation Program and International Finance Corporation.

Figure 1: County access improved sanitation and Open defecation situation in Kenya

Open defecation is also overwhelmingly poverty related with more than 60 percent of the poorest wealth quintile practicing open defecation compared to less than 1 percent in the wealthiest quintiles. Broadly as shown in Figure 2, access to improved sanitation is higher in counties ranked as having a low poverty gap index⁶ while counties with a higher poverty gap index have lower rates

Open defecation

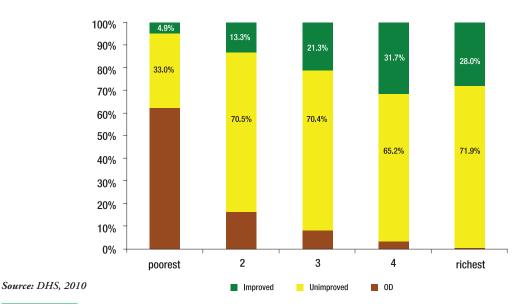
0 - 25 %

26 - 50 %

51 - 75 %

76 - 100 %





⁶ Poverty Gap Index is a measure of how far, on average, the poor are from the poverty line. Data on poverty Gap index ranking taken from Kenya County Fact Sheets, Commission on Revenue Allocation, 2013.

Improved sanitation

0 - 25 %

26 - 50 %

51 - 75 %

76 - 100 %

Poverty may however not be the sole determinant of sanitation type. For example, Narok county which is mainly populated by the Maasai whose cattle, land and ownership of the Maasai Mara conservancy contribute to a low poverty gap index, have low access to improved sanitation whereas Busia, Makueni and Kisii all have relatively high improved sanitation coverage despite a high poverty gap index.⁷ Figures 3 and 4 show the average poverty levels per county against access to improved sanitation.

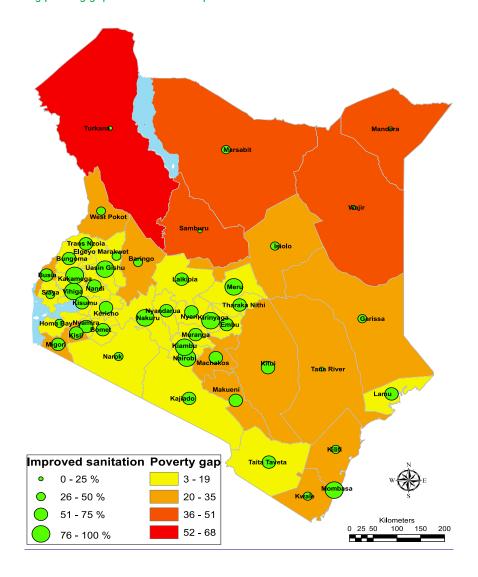


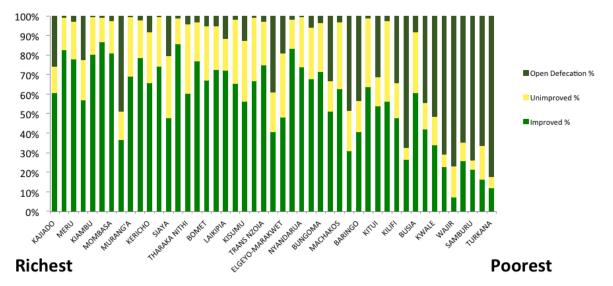
Figure 3: County poverty gap and access to improved sanitation

Increase in access to improved sanitation in Kenya between 1990 and 2013, from 25% to 29%.

14% The National Open Defecation Rate

⁷ Kajiado appears at the far left of the graph indicating a low level of poverty; however this large county encompasses wealthy Nairobi neighborhoods as well as rural areas so the poverty gap index is skewed.

Figure 4: Sanitation coverage according to poverty gap index rank



Source: Population census data 2009 + Commission on Revenue Allocation)

82.2% The Open Defecation rate for Turkana County

76.7% The Open Defecation rate for Wajir County

2.3 Urban Sanitation

Urbanization is occurring at a rapid rate and by 2030 more than 60 percent of Kenyans will be living in cities and towns. Major developments anticipated by Vision 2030 will therefore affect pollution levels and generate larger quantities of solid waste than at present. Anticipated growth in manufacturing in particular will give rise to an increase in effluents discharged, which will require effective disposal management. According to the Joint Monitoring Programme in 2008, only 27 percent of the urban the population had access to private improved sanitation most of which consist of simple pit latrines providing varied degrees of safety, hygiene and privacy.⁸

At present, the sewerage coverage is estimated at only about 12 percent with a dismal 5 percent of the national sewerage effectively treated. An assessment report in 2009 showed there were 43 sewerage systems in Kenya and wastewater treatment plants in 15 towns (total population served: 900,000 inhabitants). The operation capacity of these wastewater treatment plants is however, estimated at around 16 percent of design capacity. The inefficiency is due to inadequate operation and maintenance and low connection rates to sewerage systems, which are often neglected and characterized by overloaded pipes and blockages owing to intermittent water supply. Sewer bursts and non-functional treatment plants that discharge raw sewage into the watercourses are also common. The waste treatment is also characterized by low operational capacity. The most

⁸ Joint Monitoring Programme Kenya country info, 2013

⁹ R. Gakubia, U. Pokorski and P. Onyango, Upscaling Access to Sustainable Sanitation – Kenya, January 2010, slide 7.

¹⁰ H.W. Pearson, S.T. Avery, S.W. Mills, P. Njaggah and P. Odhiambo, Performance of the phase II Dandora waste stabilisation ponds: The case for anaerobic ponds, *Water Science and Technology* Volume 33, Issue 7, 1996, Pages 91–98. Retrieved 16 March 2010

common solution used for wastewater treatment in Kenya is waste stabilization ponds.¹⁰ Mixing industrial effluent and domestic sewage in mixed sewer systems causes poor performance of the pond treatment systems. Of the wastewater that enters the sewer network, only about 60 percent reaches the treatment plants.¹¹

In poor urban settlements, less than 20 percent of the population has access to sanitation, and 80 percent of facilities are shallow pit latrines that contribute to pollution of the environment. Kenyan urban settlements are characterized by uncontrolled, unsightly, and indiscriminate garbage disposal. Drains are clogged during the rainy season, while streams running through settlements carry polluted water from a combination of sources including sullage (refuse and dirt carried by drains), pit latrine wastes, and drainage. These polluted streams are also sources of drinking water to downstream users.

Although there is no system in place to collect data on air quality in Kenya, pollution levels in urban areas is high. The high particulate matter in the air emanates from industrial activities concentrated in urban areas and from emissions by cars and other forms of transport. Pollution levels in Nairobi for example are estimated to be $45\mu g/m^3$, three times higher than the World Health Organisation (WHO) recommended level of $15\mu g/m^3$. In rural areas, the quality of air is affected mostly by over-reliance on wood fuel, agricultural activities and poor housing.¹²

Solid waste management is a major environmental hazard in Kenya. The per capita waste generated ranges between 0.29-0.66 kg/day projected to rise to 1 kg/day by 2012; 61 percent of this waste is residential and hence, non-hazardous. The rest is industrial and hospital/pharmaceutical waste, which is highly hazardous. As Figure 5 shows, food, paper and plastic waste make up the bulk of the country's solid waste and are projected to continue to be the leading solid waste in the future. Chemical and hazardous waste is mainly attributed to use of farm inputs. However, waste from hospitals and import of cheap counterfeit goods (especially electronics) are the main sources of hazardous waste. These types of waste are projected to pose a great danger to the population as the economy grows. Creating public awareness of and building capacity of institutions handling these issues will be given priority.

Due to lack of appropriate disposal facilities, medical and hazardous wastes continue to pose a challenge in environmental management. This waste is disposed together with general municipal waste without segregation. Currently, there are only two incinerators in the country (both located in Nairobi) for destroying medical and hazardous waste. With health care services devolved to 47 counties, there is need to build necessary capacities, especially within the country medical facilities, to handle all types of wastes. This calls for the use of market-based instruments to improve waste management, as well as public awareness measures to promote sound waste disposal practice.

¹¹ Institute of Economic Affairs 2010: A Rapid Assessment of Kenya's Water, Sanitation and Sewerage Framework, June 2007 Retrieved 16 March 2010

¹² Government of Kenya, 2012, Sessional paper No. 10 of 2012 On Kenya Vision 2030; UNEP 2005, Solid Waste Management Vol. I &II

¹³ *Ibid*.

¹⁴ Ibid.

51 Food waste 16 Paper **Plastics** 12 Food, paper and 7 Grass/wood plastic are projected to continue to be 3 Ceramic the lead wastes in future 3 Metal 3 Textiles Rubber 2 Glass 1 Leather

Figure 5: Composition (in percentage) of Kenya's solid waste

Source: Kenya Vision 2030

2.4 Investment in Sanitation

There are three funding streams for sanitation and hygiene in Kenya. These are first, on budget – Treasury funds transferred directly from the Ministry/Department of Finance to the Ministry/Department of Health; second, on budget funds transferred from donors to the Ministry/Department of Health and other relevant ministries such as Water directly via various mechanisms; and third, off-budget funding which present a particular challenge as they are not effectively captured as part of the overall national and county budgets. In respect of investment, Kenya has only allocated 0.2 percent of GDP to sanitation as compared to the global target of 0.9 percent and eThekwini Declaration commitment of at least 0.5 percent of GDP to sanitation and hygiene (now succeeded by the Ngor Declaration). In 2010, Kenya's water and sanitation expenditure represented 0.86 percent of GDP, down from 1.10 percent in 2008.¹⁵

One of the reasons why sanitation remains a low investment priority lies in institutional fragmentation, with different elements of the sanitation supply chain being in the hands of different players. This fragmentation has led to lack of proper coordination of sanitation services and hindered a holistic approach to sanitation financing. The development of a sanitation and hygiene investment plan has been a pending priority within Kenya's Country Priority Action Plan

¹⁵ WaterAid, 2011, Off track, off target: Why investment in water, sanitation and hygiene is not reaching those who need it most, WaterAid, Nov. 2011 - http://www.wateraid.org/documents/plugin_documents/offtrack_offtarget.pdf

on Sanitation, but progress is constrained by a lack of specific capacity in the sector. Thus despite financial support and donor interest for sanitation in Kenya, sustainable financing remains a key bottleneck to accelerated progress.

2.5 Status of Sanitation Millennium Development Goals (MDG) in Kenya

Kenya made a primary commitment to reduce by 63 percent the proportion of the population without access to improved sanitation by 2015. This entailed having an additional 20 million people with access to sanitation by 2015, which would bring the proportion of people with access to improved sanitation to a new coverage rate of 82 percent, more than two and half times the current JMP estimate of 31 percent. However, according to the Joint Monitoring Program for Water and Sanitation 2011 report, Kenya was off track in meeting the MDGs targets as well as the national targets enshrined in the Vision 2030. Yet a relatively small additional annual rate of acceleration is required to reach universal access by 2040. At the prevailing 0.75 percent acceleration rate, Kenya would miss the MDGs target of 63 percent improved sanitation coverage by over 100 years and universal coverage will be reached in 133 years shown in Table 1 below. The lack of acceleration in rural sanitation can be attributed in part to key bottlenecks in an otherwise strong enabling environment. An assessment of the enabling environment in Kenya undertaken in July 2013 found major bottlenecks in decentralized human capacity, monitoring and evaluation and financing.

Table 1: Acceleration required to meet the universal access targets by 2040

	Annual rate since 1995 to 2011	Years to Gain Universal Access	Date which Universal Access will be achieved by	Additional Annual Rate of acceleration needed to reach 2040 target	
Kenya	0.75%	133	2146	2.75%	
Africa	0.81%	123	2136	2.69%	

It is estimated that with acceleration rate of about three to five percent per year from the current rate of 0.75 percent, Kenya can achieve the universal access to improved sanitation target by the year 2030. Figure 6 shows current rate of acceleration and possible improvements in acceleration with the subsequent achievements of Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) target by the year 2030.¹⁹

¹⁶ GOK, Sanitation and Water for All High Level Meeting: Kenya- Statement of Commitments

¹⁷ MOH 2014, Draft Report of the First National Sanitation Conference, 1-3 April 2014, KICC Nairobi.

¹⁸ World Bank Group Water and Sanitation program (WSP) 2013, Final Draft Report of Enabling Environment Baseline Assessment for Sustainable Rural Sanitation and Hygiene at Scale: Kenya

¹⁹ *Ibid*.

Kenya Improved Sanitation Access in Rural Kenya 100% Accelerated Trend by 90% Accelerated Trend by 1.0% per year 3.0% per year 80% 70% Accelerated Trend by 60% 2.0% per year 50% MDG Target (63%) 40% 30% **Current Trend** 20% 10% 0%

Figure 6: Trends towards universal access to improved sanitation by different acceleration rates

2.6 The Impact of Poor Sanitation Coverage in Kenya

The lack of improved sanitation in Kenya has major health, economic and social impacts. Lack of sanitation is a major cause identified as a leading risk factor and contributor to mortality and morbidity in Kenya. Unsafe water and sanitation (5.3 percent) is the second leading risk factor and contributor to all mortality (deaths) and morbidity burden (DALY) in Kenya²⁰ as shown in Table 2.

²⁰ WHO 2009, Global Health Risks Global Health Risks, WHO Mortality and burden of disease attributable to selected major risks.

Table 2: Leading risk factors and contribution to mortality and morbidity

Mortality (deaths)			Burden (DALYs)		
Rank	Risk factor	Percent Total Deaths	Rank	Risk Factor	Percent Total DALYs
	Unsafe sex ²¹	29.7 percent		Unsafe sex	25.2 percent
	Unsafe water, sanitation, and hygiene	5.3 percent		Unsafe water, sanitation, and hygiene	5.3 percent
	Suboptimal breast feeding	4.1 percent		Childhood and maternal underweight	4.8 percent
	Childhood and maternal underweight	3.5 percent		Suboptimal breast feeding	4.3 percent
	Indoor air pollution	3.2 percent		High blood pressure	3.1 percent
	Alcohol use	2.6 percent		Alcohol use	2.3 percent
	Vitamin A deficiency	2.1 percent		Vitamin A deficiency	2.1 percent
	High blood glucose	1.8 percent		Zinc deficiency	1.8 percent
	High blood pressure	1.6 percent		Iron deficiency	1.2 percent
	Zinc deficiency	1.6 percent		Lack of contraception	1.2 percent

Source: World Health Organization, 2009

Due to poor sanitation and hygiene, more than half of the population, is at risk of diseases and death, with over 75 percent of the country's disease burden caused by poor personal hygiene, inadequate sanitation practices and unsafe drinking water. Among children, diarrhoeal diseases and intestinal worm infestation contribute to a high disease burden and mortality with diarrhoea contributing at least 40 percent of deaths among under-five children. As a result, approximately 19,500 Kenyans, including 17,100 children under the age of five years are dying each year from diarrhoea – nearly 90 percent directly attributed to poor water, sanitation and hygiene. Table 3 below shows that diarrhoeal diseases is one of the top five leading causes of deaths and disabilities in Kenya.

²¹ Unsafe sex is highly ranked as a risk factor because it leads to many conditions affecting health such as HIV, reproductive tract cancers/conditions and other Sexually Transmitted Infections, unwanted pregnancies, psychosocial conditions, amongst others.

²² MOH 2012, Report of the Global Hand washing Day in Kenya, 2012

²³ MOH 2010, Review of the Kenya Health Policy Framework, 1994 – 2010

Table 3: Leading causes of deaths, and disabilities in Kenya

Causes of deaths			Causes of DALYs		
Rank	Disease or Injury	Percent Total Deaths	Rank	Disease or Injury	Percent Total DALYs
	HIV/AIDS	29.3		HIV/AIDS	24.2
	Conditions arising during perinatal period	9		Conditions arising during perinatal period	10.7
	Lower respiratory infections	8.1		Malaria	7.2
	Tuberculosis	6.3		Lower respiratory infections	7.1
	Diarrhoeal diseases	6.0		Diarrhoeal diseases	6.0
	Malaria	5.8		Tuberculosis	4.8
	Cerebrovascular disease	3.3		Road traffic injuries	2.0
	Ischemic heart disease	2.8		Congenital anomalies	1.7
	Road traffic injuries	1.9		Violence	1.6
	Violence	1.6		Unipolar depressive disorders	1.5

DALY's = Disability Adjusted Life Years - Time lost due to incapacity arising from ill health

Statistics indicate that 35 percent of children in Kenya suffer from moderate to severe stunting.²⁴ Childhood stunting which can affect both educational and long-term productivity outcomes has been linked to poor sanitation, particularly to open defecation. Besides the burden of sickness and death, inadequate sanitation threatens to contaminate Kenya's water sources and undermine human dignity. The poor quality of air is also responsible for most cases of acute respiratory infections and accounts for 18.4 per cent of infant mortality.²⁵

In economic terms, Kenya loses an estimated KES 27 billion (USD 365 million) annually which is about one percent of the national GDP, due to poor sanitation. ²⁶ Open defecation costs Kenya US\$ 88 million per year –yet eliminating the practice would require less than 1.2 million latrines to be built. At over 17 USD per person each year, open defecation is the most costly unimproved sanitation practice²⁷. In addition to health and economic impacts, poor sanitation in Kenya has adverse social consequences. A recent SHARE study, which included Kenya, found that the poorest children and families bear the greatest sanitation-related health burden due to both exposure and susceptibility. Continued lack of progress in sanitation will ultimately undermine efforts to reduce poverty in the country. Another study which documented the experiences of women in informal settlements in Nairobi found that inadequate access to sanitation facilities left women and girls vulnerable to rape and other forms of gender-based violence.²⁸

²⁴ UNICEF 2013, The State of the World's Children(SOWC): Children with Disabilities, UNICEF, New York, May 2013

²⁵ Government of Kenya, 2012, Sessional paper No. 10 of 2012 On Kenya Vision 2030

²⁶ High Level Meeting (HLM) 2012, Statement of Commitments

²⁷ World Bank Group Water and Sanitation Programme (WSP), "Economic Impact of Poor Sanitation" in Kenya, updated using 2010 DHS data.

²⁸ Amnesty International, 2010, Kenya: Insecurity and Indignity: Women's Experiences in the Slums of Nairobi, Kenya, Amnesty International, 7 July 2010.

> THE POLICY CONTEXT

3.1 Introduction

The Kenya Environmental Sanitation and Hygiene Policy 2015-2030 is developed and aligned with various policy frameworks at the national, regional and international levels.

3.2 The National Policy Context

At the national level, the KESHP is aligned with the Constitution of Kenya 2010, Kenya Vision 2030, the Kenya Health Policy Framework 2012-2030 and the National Health Sector Strategic Plan. The Kenya Health Sector Strategic Plan (1999-2004) through the Kenya Essential Package of Health (KEPH) identifies environmental sanitation and hygiene at the community level as one of the six essential priority health packages for implementation in the health sector. KEPH hygiene and environmental sanitation activities include:

- IEC for water, hygiene, sanitation and school health.
- Excreta/solid waste disposal.
- Water supply and safety, including protection of springs.
- Food hygiene.
- Control of insect vectors and rodents.
- Personal hygiene.
- Healthy home environment, environmental sanitation, development of kitchen gardens
- Organizing community health days.

Other key national policies and strategies include the Water Policy 1999, National Water Services Strategy (NWSS 2007-2015), the Water and Sanitation Concept (WSSC), the Water Sector Strategic Plan (WSSP), the Pro-Poor Implementation Plan (PPIP) and the Water Sector Strategic Plan.²⁹ NWSS 2007-2015 aims at offering sustainable access to safe water and basic sanitation to all while the PPIP for Water Supply and Sanitation (PPIP – WSS) 2007 aims at upscaling and fast-tracking actions for water and sanitation coverage by concentrating on low-cost technology and settlements of the rural and urban poor.³⁰ The Water Services Regulatory Board Tariff Guidelines and Model (2007) goal is to establish tariffs that balance commercial, social and ecological interests.

²⁹ HLM 2012, Statement of Commitments

³⁰ http://www.righttowater.info

3.2.1 The new Constitutional context of the Policy

The Constitution of Kenya, 2010 provides the overarching framework for all policies. Article 19 (1) (2) in particular sets the Bill of Rights, which applies to all laws and binds all state organs and all persons, as the framework for all social, economic and cultural policies in Kenya. The purpose is to preserve the dignity of individuals and communities and to promote social justice and the realisation of the potential of all human beings.

3.2.1.1 Directive Principles of State Policy

The Constitution also provides clear directive principles of state policy that have far-reaching implications for sanitation policy in Articles 6(3), 174, 201 and 202. In Article 6 (3) a national state organ is required to ensure reasonable access to its services in all parts of the Republic of Kenya, so far as it is appropriate to do so having regard to the nature of the service. Article 174 outlines the objects of the devolution of government which include promotion of democratic and accountable exercise of power, fostering national unity by recognising diversity, giving powers of self-governance to the people and enhancing the participation of the people in the exercise of the powers of the state and in making decisions affecting them, recognition of the right of communities to manage their own affairs and to further their development, protection and promotion of the interests and rights of minorities and marginalised communities, promotion of social and economic development and the provision of proximate, easily accessible services throughout Kenya, ensuring equitable sharing of national and local resources throughout Kenya, facilitation of the decentralisation of State organs, their functions and services, from the capital of Kenya and enhancing checks and balances and the separation of powers.

Articles 201 and 202 of the Constitution emphasize the principles of openness and accountability, including public participation in financial matters, promotion of equitable society and fairness in sharing of the burden of taxation, equitable sharing of revenue raised nationally among national and county governments and the promotion of the equitable development of the country, including by making special provision for marginalised groups and areas

3.2.1.2 Sanitation as a Guaranteed Right

Article 43 (b) of the Constitution declares sanitation as a basic human right and guarantees the right of every person to "reasonable standards of sanitation." Article 42 also guarantees the right to a clean and healthy environment. The Constitution therefore confers the state with the obligation to give priority to ensuring the widest possible enjoyment of these rights. The state in Article 21(2) is required to take legislative, policy and other measures, including the setting of standards, to achieve the progressive realisation of the rights guaranteed under Article 43. Article 21 also requires the state to address the needs of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalised communities, and members of particular ethnic, religious or cultural communities and to enact and implement legislation to fulfil its international obligations in respect of human rights and fundamental freedoms.

To ensure that the Bill of Rights is respected and enforced, the Constitution in Article 22 gives every person the right to institute court proceedings claiming that his/her right has been denied, violated or infringed, or is threatened.³¹ To promote the protection and observance of the rights including sanitation rights in the public and private spheres, the Kenya National Human Rights and Equality Commission under Article 59 of the Constitution is given the power to receive and investigate any complaints on violation, infringement, or denial of the rights, including taking remedial actions and to research a matter in respect of the rights and to make recommendations to improve the functioning of the state in respect of the rights. The Chief Justice is given the responsibility of making rules for the court proceedings in respect of the claims that certain right(s) has been denied, violated or infringed, or is threatened.

In applying the right to sanitation as guaranteed under Article 43(1)(b), the state is expected to take every measure to ensure that resources are made available to ensure the widest possible enjoyment of the right. Thus in case the state claims that it does not have the resources to implement the rights under Article 43, a court, tribunal or other authority is to be guided by among others, the following principles (Article 20 (5) (a) (b)):

- a) It is the responsibility of the state to show that the resources are not available;
- b) In allocating resources, the state shall give priority to ensuring the widest possible enjoyment of the right or fundamental freedom having regard to prevailing circumstances, including the vulnerability of particular groups or individuals.

3.2.1.3 Devolution of Sanitation Functions and Services

The Constitution in the Fourth Schedule devolves most sanitation functions and services to the 47 County Governments with the National Government retaining responsibility for national policy, training, capacity building, technical assistance and standards formulation. The county governments are responsible for county sanitation services including licensing and control of undertakings that sell food to the public, cemeteries, funeral parlours and crematoria, refuse removal, refuse dumps and solid waste disposal and storm water management in built-up areas. Table 4 shows the distribution of sanitation-related functions between national and county governments.

³¹ The person includes (a) a person acting his/her own interest; (b) a person acting on behalf of another person who cannot act in his/her own name; (c) a person acting as a member of, or in the interest of, a group or class of persons; (d) a person acting in public interest; or (e) an association acting in the interest of one or more of its members.

Table 4: Distribution of sanitation related functions between national and county governments

Functions of County Government vs. National Government (4 th Schedule) related to sanitation	
National Government - CK 2010 4 th Schedule Part I	County Government - CK 2010 4th Schedule Part II
 National economic policy and planning National statistics and data on population, the economy and society generally Consumer protection National public works Protection of the environment Disaster management Health (sanitation) Policy Capacity building and technical assistance to counties Public investment 	 County health services, including, in particular— (c) Promotion of primary health care; (d) Licensing and control of undertakings that sell food to the public; (f) Cemeteries, funeral parlours and crematoria; and (g) Refuse removal, refuse dumps and solid waste disposal. County planning and development including (a) statistics, and (d) housing County public works and services, including— (a) storm water management system in built up area and (b) water and sanitation services. Disaster management. Ensuring and coordinating the participation of communities and locations in governance at the local level and assisting communities and locations to develop the administrative capacity for effective exercise of the functions and powers and participation in governance at the local level.

3.2.2 Kenya Vision 2030

The Kenya Vision 2030,³² developed in 2007 and revised in 2012 is the country's long-term national development blueprint. It is motivated by a collective aspiration for a much better society than the one we have today, by the year 2030 - "a globally competitive and prosperous country with a high quality of life by 2030." It aims at transforming Kenya into "a newly-industrialized, middle-income country providing a high quality of life to all its citizens in a clean and secure environment".

On sanitation, Vision 2030 stipulates that 'every Kenyan should have access to clean, safe water and improved sanitation by the year 2030'. The goal is to ensure that water and sanitation is available and accessible to all by 2030. In the medium term, the goal was to attain 70 and 65 percent access to safe sanitation and 40 and 10 percent sewerage access in urban and rural areas respectively. Vision 2030 proposes the following sanitation strategies:

- Improvement and application of improved toilets and community sanitation;
- Promotion of the use of hygienic toilets including ventilated and improved pit (VIP) latrines and septic tanks in rural areas and schools on a ratio of one toilet for every 35 boys and one toilet for every 25 girls;

 $^{^{\}rm 32}$ GOK, 2012 Sessional paper No. 10 of 2012 On Kenya Vision 2030

- Constructing sanitation facilities to support a growing urban and industrial population.
- Development and expansion of sewerage schemes especially in urban areas;
- Promotion of public health education on sanitation;
- Encouraging planned rural and informal urban settlements to ensure access to improved and safe sanitation;
- Research and development;
- Innovations in rural waste disposal combined with relevant incentives;
- Encouraging transition from traditional pit latrines to (adoption of) improved sanitation technologies or versions;
- Encouraging public-private partnerships in the development and management of sewerage systems; and
- Promotion of solutions that can provide Total Hygienic Sanitation that includes clean toilet, safe sludge removal and effective sludge treatment.

To increase urban sanitation coverage, Vision 2030 prioritises the rehabilitation, expansion and development of urban sanitation infrastructure in the satellite towns around Nairobi, Mombasa, Kisumu, Nakuru and Kisii. The Vision 2030 also prioritises development of sanitation infrastructure in 15 medium-size towns including Narok, Machakos, Maralal, Wajir, Wote, Hola, Chuka, Ruiru, Athi River, Siaya, Ol Kalou, Matuu, Maua, Moi's Bridge and Limuru as well as the new resort cities at the Coast, Isiolo and Lodwar.

To ensure a clean, secure, healthy and sustainable environment, the vision seeks the reduction of hazards related to an unhealthy environment by improving pollution and waste management through the application of the right economic incentives and commissioning public-private partnerships (PPPs) for improved efficiency in sanitation delivery. This would encompass the following key strategies:

- Development of solid waste management systems in at least five municipalities and in the proposed economic zones.
- Development of regulations on the use of plastic bags and other hazardous products.
- Development and enforcement mechanisms targeting pollution and solid waste management regulations.
- Establishment of national air quality monitoring system.
- Application of market-oriented instruments to regulate the use of plastic bags.

Percentage of population without access to improved sanitation that Kenya made a primary commitment to reduce by 2015.

3.2.3 National Health Policy Framework 2012-2030

The National Health Policy Framework 2012-2030³³ goal is to 'attain the highest possible standard of health in a manner responsive to the needs of the population'. The policy aims to achieve this goal through supporting provision of equitable, affordable and quality health and related services at the highest attainable standards to all Kenyans. The policy identifies unsafe water and sanitation as the leading risk factor and contributor to mortality in Kenya. The National Health Policy Framework 2012-2030 therefore aims to ensure among other things, that the health sector interacts with, and influences interventions across sectors that have an impact on health including the promotion of access to safe water and adequate sanitation and the promotion of good hygiene practices.

3.3 The International Policy Context

At the regional and international level, Kenya has ratified several international conventions, treaties and declarations, under which the human right to safe drinking water and sanitation is guaranteed.³⁴ These include the International Covenant on Economic, Social and Cultural Right (ICESCR), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and the Convention on the Rights of the Child (CRC), the MDGs Declaration, eThekwini Declaration (now succeeded by the Ngor Declaration), and Sanitation and Water for All High-Level Meeting Commitments 2012.

3.3.1 Sanitation as a Human Right

On 28 July 2010, through Resolution 64/292, the United Nations General Assembly explicitly recognised the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. The resolution called upon states and international organizations to provide financial resources, help capacity-building and technology transfer to help countries, particularly developing countries, to provide safe, clean, accessible and affordable drinking water and sanitation for all.

"Clean water and sanitation are not only about hygiene and disease; they're about dignity, too. ... [E]veryone, and that means ALL the people in the world, has the right to a healthy life and a life with dignity. In other words: everyone has the right to sanitation."

Prince Willem Alexander of the Netherlands, Chair of the UN Secretary General Advisory Board on Water and Sanitation.

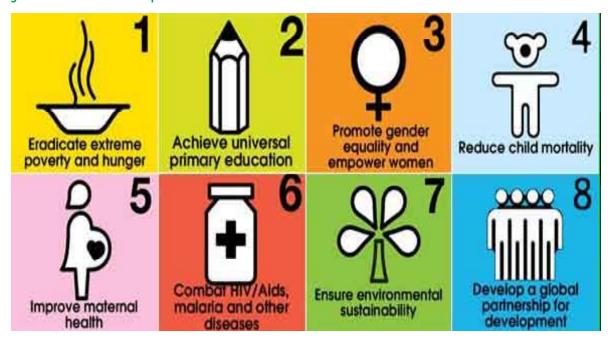
³³ Sessional Paper No. 6 of 2012 on the Kenya Health Policy 2012-2030

³⁴ These include the International Covenant on Economic, Social and Cultural Right (ICESCR), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and the Convention on the Rights of the Child (CRC).

3.3.2 From Millennium Development Goals to Sustainable Development Goals

In September 2000, 189 countries, Kenya included, adopted the Millennium Declaration, whose main objective was to define a common vision of development by 2015. The declaration committed UN member-states, international organizations, and other specialised agencies to ensure basic human development for all the people of the world by 2015 through the attainment of the Millennium Development Goals (MDGs). Target 10 of the MDG 7 was to reduce by 50 percent the proportion of the population without access to water and sanitation by 2015, thereby improving the overall health and socio-economic condition and quality of life of especially women and children. With the endorsement of the Millennium Declaration, countries set themselves a limited number of achievable goals to be reached by the year 2015.

Figure 7: Millennium Development Goals



The Government of Kenya consequently set for herself the target of improving access to improved sanitation and to reduce the proportion of population without access to basic sanitation by 63 percent by 2015. As a contribution to attaining the MDGs by 2015, Kenya aimed to ensure that all households would be made aware of the importance of improved environmental sanitation and hygiene (ESH) practices for improved health; and that 90 percent of households would have access to a hygienic, affordable, and sustainable toilet facility, improved housing, food safety, usage of safe drinking water and the means to safely dispose of waste products. In particular, every school would have hygienic toilets and hand-washing facilities – separate for boys and girls. Attainment of these goals was expected to drastically reduce the incidences of sanitation-related diseases.

Following the recommendations of the Open Working Group set up by the Rio+20 Conference in 2012 to come up with the post-2015 development agenda, at the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. The 17 SDGs with 169 associated targets are integrated and indivisible, global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities. The 17 Sustainable Development Goals are as follows:

- Goal 1. End poverty in all its forms everywhere.
- ▶ Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goal 3. Ensure healthy lives and promote well-being for all at all ages.
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Goal 5. Achieve gender equality and empower all women and girls.
- Goal 6. Ensure availability and sustainable management of water and sanitation for all.
- ▶ Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 10. Reduce inequality within and among countries.
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- ▶ Goal 12. Ensure sustainable consumption and production patterns.
- Goal 13. Take urgent action to combat climate change and its impacts.
- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- ▶ Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Sustainable Development Goal 6 aims to ensure access water and sanitation for all. Specifically, in respect of sanitation and hygiene, the Sustainable Development Goal 6 aims to:



- a) By 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- b) By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- c) By 2030, expand international cooperation and capacity-building support to developing countries in water and sanitation related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.
- d) Support and strengthen the participation of local communities for improving water and sanitation management.

3.3.3 The Sanitation and Water for All High-Level Meetings Commitments

Kenya is among developing countries that have consistently participated in, and made commitments at the Sanitation and Water for All (SWA) High Level Meetings (HLM). During the April 2014 HLM held in Washington DC, Kenya committed to:

- a) Achieve universal access to water and sanitation by the year 2030.
- b) Eliminate open defecation nationwide by 2017 and declaring open defecation free to benefit at least 75 percent of the community currently defecating in the open and ensure communities are certified by decentralized third party.
- c) Eliminate the presence of inequalities and improve sustainability by involving the community members.
- d) Strengthen and advocate for increased budgetary allocation for WASH sectors in the new county governments.
- e) Develop a financing investment plan for water, sanitation and hygiene that is integrated into the national medium term expenditure framework, and to set specific investment targets for 2014-2016 financial years.
- f) Finalize and strengthen national/county monitoring frameworks and to roll out and disseminate the monitoring and evaluation framework committed in the 2012 SWA HLM to all the 47 counties.
- g) Finalize the development of WASH indicators and ensure that it is operationalized in the 47 counties by 2016 led by the Ministry of Health.

- h) Harmonize the water policy, sanitation and hygiene policy, ODF road map to align with the constitution of Kenya for operationalization in the devolved government structure by 2016.
- i) Advocate for capacity building needs for WASH staff at both the National and County government of the ministries in charge of water and sanitation by 2016, so that they can effectively address scaling up of Water and sanitation.

3.3.4 Ngor Declaration on Sanitation and Hygiene

The Ngor Declaration on sanitation and hygiene was adopted by the African ministers responsible for sanitation and hygiene on the 27th May 2016 during the 4th African Conference on Sanitation and Hygiene (AfricaSan) that was convened by the Government of Senegal with support from African Ministers Council on water (AMCOW) in Dakar, Senegal from 25th to 27th May 2015.

The Ngor Declaration effectively has replaced the eThekwini Declaration that Kenya signed in 2011. It comes up with commitments meant to achieve dignity and equity in sanitation and hygiene and end open defeacation by 2030. These commitments include:

- 1. Focus on the poorest, most marginalised and unserved aimed at progressively eliminating inequalities in access and use and implement national and local strategies with an emphasis on equity and sustainability;
- 2. Mobilise support and resources at the highest political level for sanitation and hygiene to disproportionately prioritise sanitation and hygiene in national development plans.
- 3. Establish and track sanitation and hygiene budget lines that consistently increase annually to reach a minimum of 0.5% GDP by 2020;
- 4. Ensure strong leadership and coordination at all levels to build and sustain governance for sanitation and hygiene across sectors especially water, health, nutrition, education, gender and the environment;
- 5. Develop and fund strategies to bridge the sanitation and hygiene human resource capacity gap at all levels;
- 6. Ensure inclusive, safely-managed sanitation services and functional hand-washing facilities in public institutions and spaces;
- 7. Progressively eliminate untreated waste, encouraging its productive use;
- 8. Enable and engage the private sector in developing innovative sanitation and hygiene products and services especially for the marginalised and unserved;
- 9. Establish government-led monitoring, reporting, evaluation, learning and review systems;
- 10. Enable continued active engagement with AMCOW's AfricaSan process.

DESCRIPTION AND PRINCIPLES

4.1 Introduction

The Kenya Environmental Sanitation and Hygiene Policy (KESHP) provides broad guidelines to state and non-state actors including civil society organizations (CSOs), development partners, private sector, communities, households and individuals at all levels to ensure universal access to improved sanitation as well as clean, healthy and sustainable living environment for improved quality of life of Kenyans. The KESH policy is a response to the fundamentally changed policy and governance environment fostered by the Constitution of Kenya, 2010 and the adoption of the global 2030 Sustainable Development Agenda in September 2015. The policy outlines strategies and actions for achieving Kenya's national and international commitments while addressing the Millennium Development Goals and targets that were missed.

4.2 Sector vision, mission and goal

4.2.1 Vision statement

The policy envisions a clean, healthy and economically prosperous Kenya free from sanitation and hygiene related diseases.

4.2.2 Mission Statement

The policy mission is to ensure all Kenyans have sustainable access to highest attainable standards of sanitation, clean and healthy environment.

4.2.3 Policy Goal

The policy goal is to ensure universal access to improved sanitation,³⁵ clean and healthy environment by 2030.

4.3 Immutable guiding constitutional values and principles

The Constitution of Kenya 2010 provides clear immutable guiding principles and values that bind the State and all persons in governance, leadership and development and implementation of public policy.

³⁵ Improved sanitation includes the provision of hygienic facilities and the safe, environmentally-responsible collection and treatment of faecal sludge.

4.3.1 Guiding Governance principles and values

This policy is guided by the national governance values and principles provided in Article 10 of the Constitution of Kenya that are binding to all state organs, state officers, public officers and all persons wherever they apply and interpret the Constitution; enact and apply laws; or make or implement public policy decisions. These include first, patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of the people; second, human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalized; and third, good governance, integrity, transparency and accountability; and fourth, sustainable development.

4.3.2 Guiding leadership principles and values

The Constitution in Chapter Six provides the principles and values of leadership. It emphasizes, first, selection of public officials on the basis of personal integrity, competence and suitability, or election in free and fair elections; second, objectivity and impartiality in decision making, and in ensuring that decisions are not influenced by nepotism, favoritism, other improper motives or corrupt practices; third, selfless service based solely on the public interest, demonstrated by honesty in the execution of public duties, and the declaration of any personal interest that may conflict with public duties; fourth, accountability to the public for decisions and actions; and fifth, discipline and commitment in service to the people. In view of these leadership values and principles, public officials are required to exercise the public trust and authority vested in them in a manner that demonstrates respect for the people; brings honour to the nation and dignity to the office; promotes public confidence in the integrity of the office; and demonstrates responsibility to serve the people rather than the power to rule them.

In relation to the ethical and professional character of the public service, the Constitution in Chapter Thirteen puts emphasis on, first, high standards of professional ethics; second, efficient, effective and economic use of public resources; third, responsive, prompt, effective, impartial and equitable provision of public services; fourth, involvement of the people in the process of policy making; fifth, accountability for administrative acts; sixth, transparency and provision to the public of timely, accurate information; seventh, fair competition and merit as the basis of appointments and promotions; eighth, representation of Kenya's diverse communities; and ninth, affording adequate and equal opportunities for appointment, training and advancement, at all levels of the public service, of men and women, the members of all ethnic groups and persons with disabilities.

4.3.3 Directive principles of State policy

The Constitution provides clear directive principles of state policy that apply to sanitation policy. In Article 6 (3) a national state organ is required to ensure reasonable access to its services in all parts of the Republic of Kenya, so far as it is appropriate to do so having regard to the nature of the service. Article 19 of the Constitution establishes the Bill of Rights as an integral part of Kenya's democratic state and the framework for social, economic and cultural policies. Article 174 outlines the objects of the devolution of government which include promotion of democratic

and accountable exercise of power, fostering national unity by recognising diversity, giving powers of self-governance to the people and enhancing the participation of the people in the exercise of the powers of the state and in making decisions affecting them, recognition of the right of communities to manage their own affairs and to further their development, protection and promotion of the interests and rights of minorities and marginalised communities, promotion of social and economic development and the provision of proximate, easily accessible services throughout Kenya, ensuring equitable sharing of national and local resources throughout Kenya, facilitation of the decentralisation of State organs, their functions and services, from the capital of Kenya and enhancing checks and balances and the separation of powers.

4.3.4 Guiding principles for public finance management

Articles 201 and 202 of the Constitution emphasize the principles of openness and accountability, including public participation in financial matters, promotion of equitable society and fairness in sharing of the burden of taxation, equitable sharing of revenue raised nationally among national and county governments and the promotion of the equitable development of the country, including by making special provision for marginalised groups and areas.

4.4 Guiding Policy Principles

The policy measures shall embrace the following principles that impact on the access to improved environmental sanitation and hygiene services and a clean and healthy environment

- a) Recognition of a clean and healthy environment and sanitation as human rights: The policy recognizes that enjoyment of a clean and healthy environment and access to reasonable standards of sanitation are guaranteed human rights. It shall therefore be the responsibility of the state to employ the best and equitable measures to enable the widest possible enjoyment of these rights.
- **b)** Sanitation as a public service and an economic good: Sanitation services shall be treated as both public and economic good.
- c) Recognition of sanitation and hygiene promotion as cost-effective preventive means in public health: Good sanitation and hygiene practice is the best means of preventing adverse public health conditions. Sanitation and hygiene promotion shall be therefore rigorously applied to improving public health conditions in the various community environments, at individual household, community, school, public and institutional levels.
- **d)** Community-Led Total Sanitation (CLTS): The policy emphasizes community-led total sanitation, especially in rural areas, with the aim of complete eradication of all indiscriminate and unhygienic practices in the disposal of excreta, liquid and solid waste. The key aspects of CLTS are:
 - i) **Participation:** All members of the community should have an equal opportunity to participate in the development and management process, and there must be broad community support for community-based management.

- ii) **Responsibility:** The community owns and is responsible for maintaining the systems.
- iii) **Authority:** The community has the legitimate right to make decisions on behalf of the users.
- iv) **Control:** The community is able to carry out and determine the outcome of its decisions.
- v) **Accountability:** The community must accept the consequences of its decisions and understand that it is accountable for its actions.
- e) Integrated approach: Sanitation development is essentially multi-sectoral. An integrated approach combining safe sanitation, hygiene education and promotion and safe water supply ensures improved health and livelihood. The successful promotion and implementation of sanitation programmes and services will require the involvement of all stakeholders in all stages of the sanitation process from the pre-planning stage, through implementation to monitoring and evaluation stages.
- **f) Results oriented:** Sanitation programming shall be results and outcome-based, with emphasis on outcome indicators for improved sanitation coverage.
- g) Equity: The poor suffer most from lack of access to basic sanitation facilities and services. Access to sanitation for the poorest and most facility-deprived segments of the population shall be ensured as a means of improving their socio-economic status.
- h) Gender responsiveness and social inclusion: Vulnerable sections of the community children, women, older members of society and persons with disability shall be given priority attention in environmental sanitation promotion. When vulnerable sections of the community have a genuine inability to carry out environmental sanitation measures, they shall be supported by the community and others to enable them carry out all necessary environmental sanitation tasks within their compounds or dwellings. The planning of, investment in, and the promotion of sanitation facilities must therefore address the special needs, interests and priorities of women and girls, older members of society and persons with disability with due consideration for men and boys to ensure adequate access, usage and maintenance of the facilities.
- i) Demand creation and responsiveness: Through awareness creation, sanitation and hygiene promotion and education, community mobilization, enforcement and appropriate incentives for improved sanitation and hygiene, households and communities shall be empowered to demand for improved sanitation. Household innovation will be encouraged.
- **j)** Sustained political will: Sustained political will is required at all levels to generate increased public investment, commitment and interest in sanitation activities towards universal coverage of improved sanitation.
- **k)** Ownership with responsibility: Enabling institutional structures shall be put in place to guide sanitation activities at various levels. The ownership of the facilities shall be matched with the responsibility for operation and maintenance at national, county and municipal levels, households and the communities.

- l) Responsibility of households and communities for rural sanitation and hygiene: Each household and community shall shoulder the responsibility of maintaining an open defecation free (ODF) environment through collective decision-making. Each household shall be responsible for the environmental sanitation tasks in its compound. However, the government shall have the responsibility for creating awareness and demand in the community for all environmental sanitation measures. Community-based and demand-responsive approaches shall be applied at household, community and government levels to fulfil their respective responsibilities in the drive toward total environmental sanitation and ODF environment.
- m) Responsibility for urban environmental sanitation and hygiene: As urban environmental sanitation facilities are usually expensive and require specialised technical skills to establish, the government at national and county levels, including urban authorities, shall take initiatives to plan and establish such facilities with the community's involvement. An appropriate mechanism shall be established to sustain such facilities by introducing cost recovery measures. The government shall ensure the need of the poor segments of society is addressed by making suitable arrangements.
- n) Private sector involvement in environmental sanitation and hygiene services: The private sector shall be encouraged and facilitated for active involvement in the provision of environmental sanitation services to communities. The government shall empower and support private sector initiatives with required legal instruments including exemptions and creating the enabling environment such as clear standards and guidelines and transparent tendering processes for the promotion of different technology options and management by the private sector.
- **o) Promotion of sustainable, appropriate and affordable technology options:** A variety of affordable and appropriate sanitation systems must be available to all users. The advancement and upgrading of technologies and participatory hygiene methods through research and development of appropriate and affordable technologies and management systems shall be pursued.
- p) Environmental protection: Environmental sanitation facilities shall not be allowed to pollute the environment. The household or private sector or any other eligible entity, when establishing environmental sanitation facilities, shall ensure that the waste from such environmental sanitation facilities do not pollute the environment and water bodies, including ground water aquifers. All construction of environmental sanitation facilities shall therefore consider environmental measures for the conservation of the environment such as water resources and vegetation cover from contamination.

- **q)** The polluter pays: The environment shall be kept free from contamination and pollution as the result of uncontrolled sewage flows, solid and liquid waste disposal, industrial waste discharges, chemical fertilizers and pesticides. The polluters, whether individuals or organizations, shall be responsible for all the damages caused by the contamination and pollution and for the required cleanup measures.
- r) Enforcement and regulation: Appropriate, transparent, national and county legislation for the enhancement of sanitation service delivery and regulation shall be enacted taking into account the sanitation related laws and bylaws. There shall be a zero tolerance to corruption policy and code of conduct developed for the sector in line with Chapter 6 of the Constitution and the Ethics and Anti-corruption Act. Enforcement agencies shall be empowered to deal with offenders of sanitation laws.
- s) Sustainable sanitation financing: It shall be an obligation of the national and county governments and municipal authorities to establish enabling and sustainable financing mechanism(s) for sanitation services and development and to make yearly budgetary provisions with timely release for the implementation of sanitation plans, programmes, activities, services and functions. The private sector, communities and individuals shall be encouraged and mobilised to contribute towards funding hygiene and sanitation services and programmes.
- t) Monitoring and Evaluation (M&E): An effective monitoring and evaluation system shall be put in place at all levels to ensure coordinated and sustained development of the sanitation sector.

POLICY STRATEGIES AND MEASURES

5.1 Introduction

The policy sets Kenya on the trajectory of ensuring that all Kenyans have sustainable access to improved sanitation and a clean and healthy environment by 2030. The policy therefore sets the following targets:

- a) Achieve and sustain 100 percent ODF Kenya by 2030.
- b) Achieve and sustain 100 percent access to improved sanitation in rural and urban areas by 2030.
- c) Increase public investment in sanitation and hygiene from 0.2 percent to at least 0.5 percent of the GDP by 2020 and to 0.9 percent of the GDP by the year 2030.

5.2 Policy Objectives

- 1. To scale up rural and urban sanitation towards an open defecation free (ODF) Kenya and universal access to improved sanitation by 2030.
- 2. To assure a clean and healthy environment for all Kenyans through appropriate technology choices for waste management and pollution control.
- 3. To foster strong private sector participation and investment in creating sanitation demand and increasing uptake of appropriate products and services.
- 4. To establish an enabling legal and regulatory environment for sanitation at both national and county levels.
- 5. To strengthen institutional and human resource capacity of the environmental sanitation sector for efficient and effective provision of sanitation and hygiene services.
- 6. To ensure sustainable financing for sanitation through public and private investment.
- 7. To establish an effective research and development framework for sanitation to improve appropriate technology choices and promote evidence-informed sector decision-making.
- 8. To establish a functionally effective monitoring and evaluation framework for the sanitation sector to ensure maximum accountability in policy implementation at all levels.

5.3 Description of policy strategies

KESHP focuses on appropriate sanitation and hygiene interventions designed and targeted at various levels of the living environments. Broadly, the policy interventions focus on eight key areas as follows:

- 1. Scaling up access to improved rural and urban sanitation.
- 2. Assuring clean and healthy environment free from public nuisances.
- 3. Fostering private sector participation and investment in sanitation.
- 4. Building governance and leadership capacity for sanitation.
- 5. Sustainable financing and investment for sanitation.
- 6. Building enabling legal and regulatory environment.
- 7. Establishing an effective research and development framework for sanitation.
- 8. Strengthening monitoring and evaluation systems for the sanitation sector

5.4 Policy Strategy #1: Scaling up access to improved rural and urban sanitation

Policy 1.
Objective

To scale up rural and urban sanitation towards an open defecation free (ODF) Kenya and universal access to improved sanitation by 2030.

This policy strategy aims to scale up access to improved rural and urban sanitation towards universal access and ODF Kenya by 2030. The purpose is to enable all Kenyans to attain the full enjoyment of their right to high standards of sanitation as enshrined in Article 43(b) of the Constitution. The national and county governments shall establish minimum standards for sanitation services and guidelines for various categories of users. The underlying principle is that choices by all segments of the population for any level of service shall reflect need and effective demand, while the choice of technologies for all levels of service shall adhere to set standards and regulations to safeguard public interest and the rights of all. A number of policy measures and actions shall be taken:

5.4.1 Scaling Up Access to Improved Rural Sanitation

The policy recognises that almost half of rural Kenyans do not have access to basic sanitation, with open defecation the norm for a significant proportion of the rural population. The policy aims to promote total access to safe sanitation through a participatory community health strategy involving households and community groups as key beneficiaries and owners of interventions. The key aspects of sanitation in rural areas include:

- Promotion of environmental sanitation and hygiene in rural areas in an integrated manner, based on community participation to create effective awareness among communities on proper sanitation and hygiene knowledge and practices.
- For communities of population of less than 5,000, the Total Sanitation Model will be adopted.
- Environmental sanitation promotion in the rural areas shall be based on six building blocks so that environmental sanitation and hygiene benefits are achieved and maintained by the communities through:-
 - (a) Safe water handling and proper use;
 - (b) Latrines construction and proper use (low-cost option, effectively used and kept clean);
 - (c) Sustained hand-washing practices;
 - (d) Food hygiene;
 - (e) Maintenance of a clean home environment; and
 - (f) Safe treatment or disposal of fecal sludge.
- The national and county governments in collaboration with stakeholders shall mobilise communities, raise awareness and provide incentives to build their sanitary latrines and wastewater disposal systems along with the promotion of hygiene and preventive health practices.
- Promotion measures shall fit in with local and environmental conditions with due respect
 to existing safe practices, and socio-cultural norms in the specific locality. Awareness and
 demand creation to ensure community acceptance and commitment shall be the aim of
 environmental sanitation and hygiene promotion, and advocacy measures.
- A programme for motivation, technical advice and minimal subsidy (through the supply
 of materials only to indigent groups in the community) may be initiated to ensure access
 to appropriate sanitation and hygiene technologies including technologies for safe disposal
 of wastewater.
- Households in rural areas shall be expected to own and have access to safe sanitary facilities with at least minor improvements to reduce flies, odours, etc. (at least an upgraded pit latrine), VIP latrines or pour flush latrines connected to a septic tank linked to soak-away pits and/or collection system.
- The acceptance and success of environmental sanitation facilities in rural areas, particularly household latrines, shall depend on the technology used in that specific area. Environmental sanitation technology options shall be cost-effective and designed in consultation and agreement with the community. Use of local materials without undermining the environment shall be emphasised.

- The use of wastewater for agricultural purposes from individual households will be encouraged and designs for its collection and use will be provided to households. Biogas projects will be promoted to generate energy from solid waste for household use.
- County governments will enforce standards regarding sanitation and hygiene at household levels in rural areas.

5.4.2 Scaling Up Access to Improved Urban Sanitation

The policy recognises the rapid rate of urbanization projected that by 2030 more than 60 per cent of Kenya's population will be living in cities and towns. Urbanization will generate higher levels of pollution and larger quantities of liquid and solid waste requiring effective waste disposal management systems including proper sludge management and treatment. Presently, the sewerage coverage is estimated at only about 12 percent, with only 5 percent of the national sewerage effectively treated. The operation capacity of the wastewater treatment plants is also low, estimated at around 16 percent of design capacity. The key aspects of sanitation in urban areas include:

- The Boards of Cities and Municipalities and Town Committees shall develop Urban Environmental Sanitation and Hygiene Strategic and Action Plans (UESHSAPs) and Urban Strategic Environmental Sanitation Investment and Financing Plan (USESIFP)
- Collection, storage, removal and safe disposal and treatment of residential and commercial sludge and wastewaters through individual disposal systems such as septic tanks or Urine Diverting Dry Toilets (UDDTs) shall be given the highest priority in urban environmental sanitation while the sewerage system with proper treatment facilities shall be regarded as a better option.
- The County Government in collaboration with stakeholders shall promote low cost appropriate technologies, such as twin pit, UDDT, or eco-sanitation, in peri-urban and slum areas and in other small to medium sized urban centers. The Component Sharing Model will be adopted for these areas.
- The sanitation technology options in urban areas may include flush latrines and/or pour flush latrines in homes (or privately shared) connected to an underground sewage system terminating in a sewage treatment facility. Each household in urban areas must own and have access to safe sanitary facility with suitable and affordable water conveyance system and from which faecal sludge can be safely collected and treated.
- In peri-urban areas where sewerage network system is not available, appropriate technologies shall be explored and used. Each household must however, own and have access to safe sanitary facility that is easily adaptable to existing traditional pit latrine and uses superstructures which blends very well with other buildings within the community. Any technology, however, must ensure safe sludge collection, exhaustion, and treatment.

- Collection and safe disposal of solid waste from residential and commercial areas, including institutions and public places should be given the same priority in the environmental sanitation in urban areas. Without the collection and safe disposal of solid waste, the sanitation challenge persists.
- Industrial and chemical waste should be classified, treated and disposed of in a proper
- A sewerage system suitable for built-up urban areas shall be of the right economic scale, affordable and manageable.
- In small and medium towns, public service delivery mechanisms shall be established, while public-private partnerships and private sector investment shall be encouraged for the installation, operation and management of public facilities. Low-cost technology options shall be utilised in the absence of high-cost sophisticated solutions.
- County governments, town or city authorities will develop their capability and capacity to document existing settlements and for identifying the existing sanitation and drainagerelated infrastructure and their condition. Documentation of existing settlements and sanitation/drainage-related infrastructure however, will need the availability of base maps prepared on GIS for use by sanitation-related agencies, including the county administration, city, or town authorities. On the basis of this documentation, a programme for the development of new and rehabilitation of damaged infrastructure will be developed and implemented.
- An overall sanitation plan will be developed for all urban settlements by county governments and city or town authorities in coordination with all other agencies involved in sanitation. The plan will focus mainly on the details of all sanitation-related components and will ensure its implementation.
- Close coordination between agencies responsible for the Slum Upgrading Programme, the county government and city and town authorities and agencies responsible for planning, implementation and operation and maintenance (O&M) of sanitation will be established so as to make their work more integrated and effective.
- Disposal of storm water can combine with sewage disposal, provided the effluent can bypass the treatment plants during rains. Thus wherever the sewerage system has been planned to dispose in storm water drains, such drains will be converted into box trunks, or trunk sewers will be laid in them or on either side to terminate in treatment facilities.
- The treated effluent may be discharged into natural water bodies, used for agricultural purposes or converted in lakes and ponds, as part of recreational areas. Sample collection points will be established in the sewer system and the effluent tested before the exit of effluent into lakes/rivers/water bodies. The government will develop necessary national environmental quality standards for effluent to be used for these different purposes. Defaulters will be penalised.

- Gravity flow systems will be used for sewage schemes (unless not feasible) so as to avoid dumping and O&M costs. Where these systems cannot be self-cleansing, a one-chamber septic tank will be built between the toilet and the main sewer so as to avoid solids from entering the system and clogging it.
- Sewage treatment technologies with greater emphasis on resource recovery and recycling shall be given high priority in improving urban sanitation. Emphasis shall be placed on less energy intensive technologies such as wetland construction, oxidation ditches, extended aeration, and stabilisation ponds. In addition, multiple technology options including decentralised wastewater option shall be considered.
- Minimum sewage treatment facilities will be of biological treatment and retention time will be calculated so that the effluent produced will keep with national environmental quality standards under the national sanitation legislation and the Environmental Management Coordination Act (EMCA).
- Roads will not be raised to a level higher than the level of the plinths of houses so as to make sewage disposal and drainage possible and to prevent flooding during rains.
- Integrated solid waste management will be promoted and practiced by selection and application of appropriate measures, technologies and management programmes.
- Solid waste collection and disposal systems shall be designed for cost-effectiveness.
- Proper disposal of garbage will be established by county, city or town authorities to ensure the availability of adequate number of garbage collection trucks.
- Solid waste will be disposed of into properly designed landfill sites. All city and town
 authorities will develop landfill sites for the disposal of solid waste. Disposal places will be
 easily accessible for transport movement. Landfill sites and collection and disposal systems
 can be either managed by the city, municipal and town authorities or by a public-private
 partnership or outsourced to the private sector. In case of smaller towns and urban areas,
 area specific solutions will be developed in line with the national environmental quality
 standards.
- Government at all levels will promote the principle of 3Rs of waste management (i.e. reduce, reuse, recycle) and encourage waste separation to maximize resource use and conservation. The involvement of the formal and informal solid waste recycling industry will be developed and supported.
- Master plans for treatment of municipal and industrial wastewater in urban areas will be devised and implemented.
- Effective waste management system will be established in urban/major cities both for municipal and industrial waste water. Industries and factories that generate hazardous and toxic waste should have their own system for treatment.
- The disposal of untreated industrial effluents and municipal sewage into natural water bodies will not be permitted. Fines will be imposed on citizens, businessmen, factory owners and government institutions for any violation of the laws relating to liquid and solid waste management and criminal proceedings instituted where appropriate.

- Appropriate solid and liquid waste treatment facilities will be made an integral part of all development projects.
- The government at national and county level will review, develop and enforce laws, regulations, standards and guidelines governing land allocation or conversion for urban settlement to ensure they incorporate consideration of the requirements for sanitation and hygiene. The conversion of any land into residential use is not allowed unless its town planning and sanitation plan is approved by the town or city authorities.

5.4.3 Promotion of Appropriate Technology Options

Various technologies are in use within the ESH sector. Some of these technologies have proved to be unsustainable and many sanitation facilities are currently not being used. It is quite evident that the selection of technology types that are unsuited to users' needs and capabilities has contributed to this state of affairs. Furthermore, new technologies have sometimes been introduced without sufficient assessment of their suitability and adaptability. Some of these technologies have proved to be costly and inappropriate, leading to their abandonment. Practically, technologies need to be cost-effective, affordable, and appropriate to the needs of population groups including children, women, men, displaced people and persons with disabilities. They must also be environmentally friendly and sustainable, with manageable and affordable operation and maintenance requirements.

The various available technologies, including the upgrading of traditional ones, will therefore be critically examined and a selection made of those most appropriate to specific community needs. National and county governments will facilitate the selection or development of a wide range of hygiene and sanitation technologies. They shall regularly present a list of technology options to satisfy the demands of communities and individuals, based on their capability to pay for operation, maintenance and replacement whenever necessary. Households and communities will be particularly enabled to choose from a list of approved technology options that are relevant and appropriate to local conditions and for which they will have ready access to information on how best to improve their sanitation.

The national government will further undertake to strengthen existing structures for gathering information and carrying out research on the costs, performance, adaptability, relevance, maintenance requirements, and durability of hygiene and sanitation technologies. Due consideration shall be taken while choosing sanitation technologies and systems to avoid negative impacts on the environment. Implementing agencies shall also ensure the safe siting of sanitary facilities to prevent the contamination of water sources. Some of the feasible technological options for the different sanitation requirements of population are presented in Table 5.

Table 5: Sanitation Technology options

rable 5. Sanitation rechnolog	2 - Lancing
Technology option	Remarks
Upgraded Traditional Pit Latrine:	For reasons of cultural acceptability, affordability, especially in rural areas, minor improvements that will reduce flies, odours etc. may be accepted as interim measures. Examples of such improvements include provision of super structures, covering of the pit opening/squat hole with a suitable cover, plastering of the latrine floor with cement and introduction of a vent pipe to improve the hygiene conditions of the latrine.
Urine Diverting Dry Toilets (UDDTs)	A source-separated solution that ensures the safe capture of fecal sludge into sealed cartridges, containers, or holding tanks. A urine-diverting toilet enables easy usage for residents. Such structures work extremely well in slums, urban areas, and peri-urban areas with high density populations.
Cartridge Based Toilet	A toilet that eliminates human-faecal contact through safe collection and containment of faecal sludge in sealable cartridges or containers that are easy to remove and transport.
Sanplat latrine	Relatively cheaper than VIP latrines and easily adaptable to existing traditional pit latrines. For example, super structures like mud walls with thatched roof can house a sanplat latrine upon the installation of the sanplat (slab) and vent. Such structures blend very well with other buildings in the community.
Ventilated Improved Pit (VIP) latrine	Have advantages over traditional pit latrines by preventing flies and odour. However, it is not yet popular because of its relatively high capital cost for individuals and communities.
Pour Flush Toilets	Similar to the Septic Tank/Soakaway system in concept except that regular water supply is not envisaged. Waste-water could be used for flushing purposes. The toilet could be squatting or sitting type.
Septic Tank/ Soak- away system	Already popular in urban/peri urban settlements. Has the potential of contaminating ground water where the water table is high. Requires regular water supply and soakaway evacuation for efficient performance
Conventional sewerage system	Most advanced method of treating human wastes, requires regular water supply, reticulation and treatment works. It is suitable for large urban areas and estates where there is regular water supply and the beneficiaries can afford to pay for its operation and maintenance.
Sullage disposal system	Requires properly designed outlets from households to soakaway pits and from communities to a properly designed network of covered road drains.
Storm Water disposal system	A properly designed network of tertiary, secondary and primary drains associated with existing roads is adequate for handling storm water.
Other technologies	Biodigesters, anaerobic baffled reactors and cistern flush
	water.

5.4.4 Sanitation and Hygiene in Schools

Good water supply, sanitation and hygiene in schools can lead to increased cognitive function and attention, reduced days missed from school, more time on the learning task and increased dignity and safety, particularly for girls and for children with disabilities. School water, sanitation and hygiene are however inadequate in Kenyan schools in terms of number of facilities and hygiene practices. The management, operation and maintenance of facilities also remain a major issue for schools and an area which requires much greater attention. Adolescent schoolgirls in particular face challenges in managing their menstruation. Most girls in rural and poor urban environments lack sanitary menstrual materials as well as private facilities and water supply for washing and drying of soiled clothing, cloth and hands. As a result, they concentrate and participate less in class and other school activities or absent themselves from school during menstruation. Overall, most schools experience a number of sanitation and hygiene challenges including the following:

- Most schools do not have enough and acceptable toilet facilities as identified in the minimum standards.
- Disabled children or teachers may find it difficult to access standard facilities and may need modified designs in accordance with the principles of reasonable accommodation and universal design.
- In urban schools, the limited availability of land can lead to inadequate space for latrine construction and emptying.
- The conditions in most schools do not favour hygiene practices due to shortage/lack of water, hand-washing facilities and poor culture.
- Water supply in most schools is of poor quantity and quality if available on the premises at all. In urban areas, some schools face the problem of being cut off from their water supply by the municipal authorities for the non-payment of bills.
- Lack of standards on how many hand washing facilities are required for a school.
- There is no specific budget allocation in any ministry or in the city or town authorities for school water, hygiene or sanitation.
- Unhealthy conditions such as poor housekeeping, overcrowding, and ergonomics are risk factors that predispose school communities to diseases.
- School hygiene and sanitation is a multi-sectoral issue, whose coordination is weakened
 by lack of direction for implementation and inadequate guidelines specifying roles and
 responsibilities of each player.
- The involvement of communities and the private sector in the promotion of hygiene practices and sanitation is low due to poor sensitisation on their role.

The policy therefore recognises the serious need to improve the number and quality of sanitation facilities and their management, and improve hygiene practices, including menstrual hygiene in schools. The scope of this policy covers water supply, environmental sanitation and hygiene services for all rural and urban schools. The water supply component includes improved and adequate water

supply for human consumption (drinking and personal and institution hygiene). The environmental sanitation and hygiene component includes water storage and use, latrine coverage and use, personal and environmental hygiene with focus on hand-washing, food hygiene and safe waste management. The key aspects of the school water, sanitation and hygiene policy are:

- Accessibility to adequate and safe water supply and satisfactory environmental sanitation for schools shall be indispensable at all times.
- Schoolchildren shall have a healthy learning environment, including access to and use of clean child-friendly environmental sanitation facilities, hand-washing and water supply.
- Children shall be enabled to develop skills, knowledge and attitudes for effective hygiene practices at school and at home.
- Schools shall be used as focal points for the promotion and empowering of children/youth to be agents of hygiene behaviour change.
- School clubs shall be established for the participation and learning of schoolchildren on hygiene and environmental sanitation.
- Parent Teachers Associations (PTAs) and school management boards shall be encouraged to promote sanitation and hygiene education.
- Water, environmental sanitation and hygiene education shall be one of the essential teaching components in schools. The Ministry of Education shall introduce or promote environmental health and hygiene education as a compulsory subject in the school curricula from the formative stage of life nursery schools, through primary and secondary schools to tertiary institutions, especially teacher training institutions. Other informal school instructors shall be trained in basic environmental health and hygiene education.
- The government and stakeholders will ensure that each school has adequate toilet facilities in line with the minimum standards. There shall be separate toilets for girls and boys in the schools on a ratio of one toilet for every 25 girls and one toilet for every 35 boys.
- All schools will have at least one toilet unit for girls and one for boys designed for access and use by children with disabilities in accordance with the principles of reasonable accommodation and universal design.
- Separate disability-friendly latrines will be provided for male and female teachers.
- All school latrine facilities will be constructed in a way that considers the security, privacy and hygiene needs of girls and female teachers and workers, including during menses. Facilities will also be designed in such a way that girls and female teachers and workers are able to adequately deal with their hygiene needs during menstruation.
- Develop standards and guidelines on hand washing with soap facilities requirements for schools including provision of toilet paper and hand washing facilities for the anal cleansing population to ensure proper hygiene practices.
- The Government in collaboration with stakeholders will ensure that schools have a strategy for the safe emptying of school latrines and the subsequent safe treatment of the waste.

- The government and stakeholders shall make efforts to supply poor girls with appropriate sanitary towels. Girls in schools shall be sensitised on good menstrual hygiene practices including before, during and after mensturation.
- All schools shall have separate private collection and disposal systems for used menstrual cloth and sanitary napkins, in addition to conventional systems for solid waste disposal. This collection system shall ideally be administered by a group of girls or workers appointed by the school.
- Collection bins with lids on top to keep the waste protected from flies and animals shall
 be placed in locations identified by girls and female teachers. Once collected, menstrual
 waste can be buried, composted or incinerated, depending on the available resources in
 school. The school may also use non-burn and other appropriate technologies
- The government and stakeholders will ensure the provision of well-maintained and sustained hygiene facilities, with water and soap, promotion of hygiene practices and a culture of good practice in schools.
- The cost for the water supply, environmental sanitation and hygiene services in schools
 including operation and maintenance costs shall be covered by adequate budgetary
 allocations by the respective institutions.
- The Ministry of Education, county governments and town/city authorities and stakeholders
 will ensure the provision of sufficient funds for the construction or rehabilitation of water
 supplies for schools. Increased attention will be given to the institutional management
 and sustainability of water supplies.
- The Ministry of Education, county governments and town/city authorities will allocate budget lines each year to contribute to the construction and maintenance of school water, hygiene and sanitation.
- All existing and new schools shall have reliable water supply, environmental sanitation
 and hygiene facilities including toilet, hand-washing facilities and water supplies as part
 of the initial construction components/package.
- The Ministry of Education in collaboration with other school WASH partners will involve communities and other stakeholders in the implementation of regulations, guidelines and strategies for preventing and controlling diseases in schools.
- Water, sanitation and hygiene will be incorporated into the School Health Programme.
- The Ministry of Education, county health departments and other school WASH partners
 including the private sector will establish and facilitate a coordination mechanism for
 water, sanitation and hygiene services in schools.

5.4.5 Sanitation in Institutions

The responsibility for sanitation and hygiene in institutions cuts across public and private sectors. Institutions are diverse, with differing requirements for sanitation and hygiene. The institutions include industries, factories and garages, hotels, restaurants and guest houses, worship centres,

nursing homes, orphanage and elderly care centres, police and military camps, prisons, refugees or internally displaced persons camps, office premises and higher institutions of learning. The scope of KESHP covers environmental sanitation and hygiene services in all the public and private institutions, particularly:

- Accessibility to adequate and safe environmental sanitation and hygiene facilities in public and private shall be indispensable at all times.
- The provision of adequate sanitation and hygiene facilities will be made mandatory for all public and private institutions.
- All public and private institutions shall provide adequate, improved environmental
 sanitation facilities, including hygienic toilets, urinals, hand-washing facilities with soap
 including facilities for the anal cleansing population, toilet paper and solid waste disposal
 facilities with sanitary pads disposal bins. The primary responsibility of management shall
 remain with respective institutions.
- New institutions shall have reliable environmental sanitation and hygiene facilities as part of the initial construction components.
- Technology and designs shall be sound, user-friendly and relevant to the environmental context. Portable or reusable structures shall be used in the institutions, depending on their level of operation.
- Staff members will be sensitized and trained in effective sanitation and hygiene practices to ensure disease control in the institutions.
- The government will ensure that institutions' capacity in managing sanitation and hygiene facilities and waste management is strengthened.
- The cost of environmental sanitation and hygiene services in these institutions including that for operations and maintenance costs shall be covered by adequate budgetary allocations by the respective institutions.
- The government will enforce legislations, regulations, standards and guidelines regulating provision and management of sanitation and hygiene services, including solid and liquid waste management in public and private institutions.

5.4.6 Sanitation in Healthcare Facilities

In most healthcare settings, health care or medical wastes are poorly managed due to lack of facilities for collection, storage and environmentally safe treatment and disposal. Most health facilities also lack safe sanitation facilities, reliable water supply and incinerators. This policy therefore aims to improve medical waste management in all health care facilities and to ensure proper sanitation and hygiene practices in health care institutions to the required standards. Thus, to ensure efficient and effective management of healthcare/medical wastes and proper sanitation and hygiene practices in health facilities, the county public health department, the responsible health facilities and other regulatory agencies shall:

- Ensure that all health facilities develop and implement sanitation and healthcare/medical waste management plans to prevent and protect the waste from release at the facility or at any time before ultimate disposal.
- Ensure that all health facilities have reliable water supply, environmental sanitation and hygiene facilities as part of the initial construction components.
- Ensure that all new health facilities are appropriately designed and constructed with reliable water supply and environmental sanitation and hygiene facilities, including toilet and hand-washing facilities, taking into account gender, age and disability considerations.
- Ensure that all health staff are trained on medical waste management and effective sanitation and hygiene practices in health institutions.
- Ensure that the cost for managing medical wastes and environmental sanitation and hygiene services in health facilities, including operation and maintenance costs are covered by adequate budgetary allocations by both public and private health facilities.

The national and county governments shall develop and enforce enabling legislations, regulations, by-laws, standards and guidelines for the provision of sanitation and hygiene services in healthcare facilities and effective regulation of collection, storage, transportation, treatment and disposal of healthcare/medical wastes.

5.4.7 Sanitation and Hygiene in Public Places

A public place refers to an area or place that is open and accessible to all citizens, regardless of disability, gender, race, ethnicity, age or socio-economic level. There are several places grouped as public areas including markets, trade fairs and recreational areas (playgrounds, beaches, recreational halls), transport facilities/stands/stop-over locations such as railway stations, passenger trains, bus stop-over locations, bus stands, airports, harbours, fishing camps and fish markets, informal mining camps, burial places, depots/warehouses, yacht clubs and beaches, solid waste disposal sites, fuel stations and public toilets. The heavy human traffic and commercial activities at these public places generate large quantities of solid and liquid wastes and pollution, thus exposing the public to health hazards and inconveniences. The scope of this policy covers environmental sanitation and hygiene services in all public places, particularly:

- County governments and the city and town authorities shall give priority to the maintenance of a clean, disability-friendly and pleasant environment at these public places.
- County governments and responsible relevant authorities shall ensure the provision of
 public cleansing services to maintain a clean environment, covering all facilities used by
 the general public such as markets, public gardens, streets, public beaches, drains, river
 banks, burial places, bus and lorry parks.
- The county governments and the responsible local authorities shall facilitate the provision
 and proper management of adequate sanitary facilities including hygienic toilets, urinals,
 hand-washing facilities with soap including facilities for the anal cleansing population,
 toilet paper and solid waste disposal facilities including sanitary bins for storage of used
 sanitary pads in public places.

- The County government will foster collaboration of various actors to promote sanitation
 and hygiene and ensure that solid and liquid wastes in all public places are stored and
 collected in a sanitary manner.
- The responsible national and county government authorities shall enforce legislation, regulations, standards and guidelines pertaining to the provision and management of sanitation and hygiene services including maintenance of public toilets, safe storage and disposal of waste.
- The county government will strengthen storage, collection and transportation of wastes from the point of generation to treatment and disposal sites and ensure that public places are kept in clean, sanitary and healthy conditions.
- The county government will ensure that regular disinfestation, disinfection and fumigation is carried out to exterminate insects and vermin of public health importance in public places.
- The county government will provide a conducive environment for the private sector to participate in the provision and maintenance of sanitary facilities in public places.

5.4.8 Field/Outdoor Sanitation

Field sanitation is the practice of safe hygiene in field conditions such as plantations and camp sites to keep everyone healthy while making sure that the environment is not compromised. Most workers especially those in plantation areas either lack sanitation facilities including provision for collection, storage, transportation, treatment and disposal of wastes or often share communal latrines which are not normally well-operated and kept clean. Lack of access to running water is also a challenge, making it difficult for people to observe precautions such as cleaning hands after using the latrine, and cleaning hands before eating or handling food. As a result most people tend to defecate and urinate around the environment, thereby making such areas prone to unpleasant smells, infestation of insects, rodents, vermin and other pests that carry and spread diseases.

The scope of this policy covers environmental sanitation and hygiene services in the field or outdoor situations. In relation to environmental sanitation, the goal of the policy is to ensure the provision of safe latrines to dispose human waste such as urine and faeces in plantations, camp sites, eating areas and other outdoor locations which might be frequented by people. The hygiene component may include control of waste, the maintenance of a clean environment, keeping food and water safe, cleaning hands before eating or handling food and observing other food safety precautions to prevent the spread of disease. The scope of the policy with respect to field or outdoor sanitation entails:

 The plantation and campsite owners shall at all times provide safe drinking water, hygienic toilet facilities and hand-washing facilities with water and soap for the employees or clients in the field where they work or frequent.

- The government at national and county levels shall enact and enforce laws, regulations and by-laws pertaining to the provision of adequate and disability-friendly sanitation facilities, including waste storage, collection and disposal in the field.
- The national and county governments shall spell out the steps which must be taken and the penalties for failing to observe sanitation safety measures including provision of portable drinking water, toilet and hand washing facilities within stipulated standards.
- Public health officers shall conduct both programmed and unprogrammed visits to the plantations, campsites and other outdoor locations where people frequent to determine and ensure compliance. The inspections shall include an evaluation of all aspects of field sanitation and hygiene as well as safety and health hazards associated with agricultural operations.
- The public health office shall work and cooperate with all the relevant agencies which have jurisdiction over the concerned industry.

5.4.9 Menstrual Hygiene

Menstruation is a key indicator of health and vitality for women and girls. Managing this hygienically and with dignity is an integral part of good sanitation and hygiene. This policy aims at promoting good menstrual health and hygiene practices among women and girls and to ensure their access to a safe, healthy environment and improved menstrual sanitation facilities at all levels. To achieve this policy objective, the national and county governments in collaboration with stakeholders shall:

- Ensure the integration of menstrual health and hygiene issues into various sector and work place policies, plans and programmes.
- Sensitize women, girls and teachers on the benefits of a safe, healthy environment and improved menstrual hygiene and sanitation practices.
- Ensure the provision of safe, adequate and appropriate sanitary facilities including adequate water, cleansing and washing materials and private spaces for managing menstrual flows hygienically and privately and with dignity in the home, schools, work places, public spaces, institutions and emergency situations.
- Support vulnerable girls and women in special circumstances such as disaster and emergency situations or internally displaced persons (IDPs) camps to have access to appropriate sanitary towels.
- Ensure that toilet facilities in schools, work places, public places and institutions are designed and constructed in a way that considers the security, privacy and hygiene needs of women and girls during menses.
- Ensure that appropriate mechanisms are put in place for safe collection and disposal of menstrual waste.

- Ensure that all schools, work places, public places and institutions have separate private
 collection and disposal system for used menstrual cloth and sanitary napkins, in addition
 to conventional systems for solid waste disposal.
- Sensitize WASH and health practitioners on the various issues associated with menstrual hygiene management to promote good menstrual management practices at all levels.

5.4.10 Household Water Treatment and Safety

This policy recognises that unsafe drinking water, along with inadequate hygiene and sanitation contributes much of the disease burden in Kenya. Studies have also found that the benefits of a water quality intervention depend on sanitation and hygiene conditions. When sanitation conditions are poor, water quality improvements may have minimal impact regardless of amount of water contamination. This policy therefore recommends:

- The integration of household water treatment and safety (HWTS) and sanitation and hygiene interventions.
- The development and implementation of sanitation and hygiene interventions that address faecal contamination and vector breeding in household water storage.
- Promoting appropriate technology options for household water treatment and safety in tandem with sanitation and hygiene interventions at household and community levels. The technologies include boiling water, household and community-based chlorination of drinking water, solar disinfection, appropriate household filtration technologies, flocculation/disinfectant sachets and safe storage.

5.4.11 Sanitation in Disaster and Emergency Situations

The International Federation of the Red Cross/Red Crescent (IFRC) defines a disaster as a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. A disaster occurs when a hazard impacts on vulnerable people. The combination of hazards, vulnerability and inability to reduce the potential negative consequences of risk therefore results in disaster.

Kenya is prone to natural and man-made disasters such as floods, droughts, disease outbreaks, communal violence, terrorism, internal population displacements and refugee influx from neighboring countries. When such events occur, maintaining good hygiene and sanitation can be a challenge. Since many disease-causing organisms thrive and spread under conditions where there is flooding, fire or a lack of safe drinking water, it is important for the government and stakeholders to take steps to protect the health and safety of everyone affected by such disasters and emergencies.

The scope of this policy covers the minimum disaster risk management and emergency preparedness and response measures that will need to be taken at national and county levels. The key sanitation and hygiene services in disaster and emergency situations shall include safe water supply, water quality surveillance, safe excreta disposal, safe solid and liquid waste management, hand washing with soap, proper cleaning and sanitization of affected homes and hygiene promotion. The scope of the policy entails:

- The national government shall develop and operationalize a National Sanitation Disaster Risk Management and Emergency Response Strategy to guide the delivery of quality environmental sanitation and hygiene services in emergency situations. Based on the national strategy, county governments shall develop County Disaster and Emergency Preparedness and Response Plans to ensure the provision of quality environmental sanitation and hygiene in emergency situations. The plans will be developed and approved within 12 months after the approval of the Kenya Environmental Sanitation and Hygiene Policy.
- The national government and stakeholders shall develop principles to prevent the threat of pollution and risks to water bodies and underground water by providing environmentally safe sanitation to communities and settlements affected by disasters such as floods.
- All city and town authorities shall develop and implement sanitation emergency and disaster prevention and mitigation plans. Municipal planning must include restrictions on housing building in high-risk areas.
- The national government shall develop and make available to all service providers, the county governments, city, and town authorities and other risk management system agencies a sanitation disaster management protocol.
- The government and stakeholders shall develop the expertise to assess the vulnerability of the systems, identify the main threats and make a comprehensive risk assessment.
- The national and county governments shall incorporate threat, exposure, and vulnerability analyses into water and sanitation public investment project assessment and development.
- The national and county governments shall establish fiscal incentives for sanitation disaster risk management initiatives, including implementation of emergency plans.
- The national and county governments shall put in place institutional procedures and formulate measures to ensure that gender, age and disability specific needs and vulnerabilities of the affected population are all met equitably in disaster response, vulnerability reduction and the provision of sanitation and other services.
- Training programmes shall be provided for workers of government line agencies, civil
 society organizations and communities focusing on operational consequences of the risks,
 the impact of disasters on sanitation service provision, disaster risk management and
 emergency preparedness and response.

Effective coordination will be established with the disaster management institutions. The
Ministry of Health's Disaster Management Unit and other partners such as the Kenya
Red Cross Society shall establish a mechanism for coordinated human resource/expertise
deployment, commodities supply and management during the emergency response and
recovery phases.

5.4.12 Environmental Sanitation Education and Promotion

Environmental sanitation education and promotion shall be integral elements of all sanitation and hygiene activities at all levels. KESHP recognises that the provision of sanitation infrastructure alone is not sufficient to ensure improvement in environmental sanitation and hygiene practices, neither is regulation effective unless coupled with explanation and persuasion. If the sanitation facilities are not properly used and maintained, and if the users do not themselves use hygienic modes of behaviour, then the investment in facilities will not result in improved health. This policy therefore aims to sensitize and raise public awareness of individuals, households and communities on behaviour change, the negative impact of poor environmental sanitation and the benefits of improved environmental sanitation and hygiene practices. To achieve this policy objective, ESH shall be promoted as a continuous process, at all levels within the community, among decision-makers, and at the managerial levels within non-governmental implementing partners. Key messages will include awareness creation and demonstrations on:

- Personal hygiene (washing, dressing, eating etc.).
- Household cleanliness (kitchen, bathroom cleanliness etc.).
- Food safety (hygienic storage, preparation etc.).
- Environmental cleanliness (waste collection, communal places etc.).
- Vector and vermin control.
- Hygiene and sanitation in all public and workplaces.
- Importance of safe collection and treatment of waste.
- Protection of wetlands and water courses from indiscriminate disposal of wastes.

At the national level, the Ministry of Health in collaboration with stakeholders including other government and regulatory agencies, development partners and NGOs shall support environmental sanitation education programmes using multi-media strategies. It shall also coordinate training, materials development and research to support county and national programmes.

At the county level, the county health departments in collaboration and coordination with stakeholders including other government agencies, NGOs, faith-based organisations (FBOs) and social groups shall carry out environmental sanitation education programmes within their jurisdictions. At the community level, the community health units with the support of county health departments and stakeholders shall be used as the framework for environmental sanitation and hygiene education and promotion and for achieving improved sanitation coverage in all communities.

To raise the awareness of the benefits of improved environmental sanitation especially as related to health, food hygiene and general environment, the national and county governments including city and town authorities shall:

- Establish and raise the profiles of the National Sanitation Day and the National Sanitation and Hygiene Week by declaring them as statutory cleanup occasions at all levels.
- Promote awareness of the important roles of households, communities and the private sector in environmental sanitation services.
- Facilitate vigorous ESH campaigns on various hygienic practices, social and cultural factors, lifestyles, and environmental awareness to improve basic knowledge, skills, and human behaviour. These goals will be achieved through the use of participatory approaches or methodologies, designing and testing household health education messages, ,development of training tools and promotional materials, conducting campaigns and exhibitions at public meetings, markets and schools and targeting messages in radio and other media for all audiences.
- Develop frameworks for raising awareness on volumes and types of waste streams generated from all segments of the economy and their impacts.
- Support advocacy on effects of changing life-styles on waste streams

Promote benefits of alternative uses of wastes through Reduction, Reuse, Recycling and Recovery.

Promote use of biodegradable materials and minimize use of plastics.

Policy Strategy # 2: Assuring clean and healthy environment free from public nuisances

Policy 4 Objective __. To ensure a clean and healthy environment for all Kenyans through appropriate technology choices for waste management and pollution control.

The Government of Kenya recognizes the range of environmental effects that result from different types of sanitation systems and will seek to minimize their negative impacts while maximizing their positive effects. One of the key objectives of this policy is to protect the environment from pollution and its negative effect on human health. The national and county governments shall therefore ensure that sanitation systems are environmentally sound and that the technologies used uphold the right of present and future generations to a clean, healthy and pollution-free environment.

The National Government through the National Environmental Sanitation Coordinating and Regulatory Authority (NESCRA) in collaboration with National Environmental Management Authority (NEMA) and Water Services Regulatory Board (WASREB) shall provide guidelines for solid and liquid waste management. Monitoring and surveillance will be increased and undertaken systematically to help prevent environmental pollution from liquid and solid wastes. In cases where inappropriate waste management systems have negative environmental impacts, the particular choice of technology will be weighed against the unimproved or less elaborate waste management practices.

5.5.1 Pollution and Solid Waste Management

Reducing hazards related to pollution and solid waste and therefore an unhealthy environment is a key objective of the policy. Solid wastes comprise all solid waste material generated by households, institutions, commercial establishments and industries, and discharged from their premises for collection; all litter and clandestine piles of such wastes; street sweepings, drain cleanings, construction/demolition waste, dead animals and other waste materials. To respond effectively to increasing waste volumes and changing waste streams due to growing economy and varying life-styles, the government at both national and county levels shall:

- Develop solid waste management systems in cities, municipalities and towns to ensure a clean, healthy and secure environment.
- Develop and enforce mechanisms targeting pollution and solid waste management regulations
- Establish a national air quality monitoring system.
- Develop and enforce regulations on the use of plastic bags and other hazardous products including the application of market-oriented instruments to regulate the use of plastic bags.
- Provide services and facilities for primary separation and removal of solid wastes at household, community and public levels, especially in urban areas.
- Invite the private sector to provide the actual services under contract or franchise, as appropriate. In the case of franchise, the franchisee may propose services above the minimum specified standard, as long as the users' willingness and ability to pay can be relied upon. The franchisee may also propose tariffs and subsidy levels, subject to final approval by the county government in consultation with NESCRA and NEMA to avoid any conflicts or duplications.

5.5.2 Wastewater Management

Wastewater or liquid waste is any spent or used water from homes, communities, farms and commercial and industrial entities that contains enough harmful material to damage the water's quality. Wastewater includes sludge from on-site sanitation systems such as pit latrines, Urine Diverting Dry Toilets (UDDT) and septic tanks, domestic sewage and industrial waste from manufacturing sources. To effectively manage the increasing volumes of wastewater from various sources as the economy grows, county governments in collaboration with the National

Environmental Sanitation Coordinating and Regulatory Authority (NESCRA), Water Services Regulatory Board (WASREB) and other relevant regulatory agencies shall:

- Have authority to regulate, control, and coordinate the activities of all agencies involved in liquid waste management services.
- Ensure the availability of facilities for the safe handling and disposal of human excreta (night soil and sewage), industrial waste, animal manure, industrial sewage and domestic/commercial wastewaters, including excreta disposal facilities and systems for the conveyance (sewerage, vehicular, manual), treatment and final disposal of liquid wastes.
- Regulate technologies for domestic toilets by legislation and application of the building code. The national government shall issue technical guidelines specifying which technologies may be used, including design parameters and recommended operating procedures
- Arrange for the provision of public facilities in central business districts, major commercial and light industrial areas, local markets and public transport terminals.
- Promote the construction and use of household toilets, including the conversion of basic pit latrines to improved types.
- Transfer management and maintenance of all public toilets in urban areas to the private sector, either by franchising existing facilities or granting concessions for the construction and operation of new ones.
- Ensure the hygienic transfer of liquid wastes from the point of generation to the point of treatment and disposal. Where appropriate, provide and maintain sewerage and storm water drainage systems.
- Regulate desludging of septic tanks and VIPs carried out by the private sector.
- Provide standards and protocols for desludging,
- Establish licensing systems to facilitate enforcement of regulations relating to hygienic desludging of UDDTs, septic tanks and VIP latrines, use of hygienic standards, equipment and protective clothing for staff, staff training and regular medical check-ups.
- Promote the use of small-scale sewerage systems in high-density areas where other on-site
 options are not technically feasible, institutions (schools, colleges etc.), and small estate
 developments.
- Ensure that communities and households provide sullage conveyance drains (gutters) and soakage pits to minimize puddles and use of earth ditches. Tertiary drains shall be provided to carry sullage into secondary and primary drains.
- Ensure, through appropriate by-laws to ensure that communities and occupiers of premises maintain and tidy all drains and gutters abutting their properties.
- Ensure that communities are provided with adequate and consistently functioning drainage works in accordance with nationally defined design standards to limit sanitary nuisances, vector breeding and the physical hazards of flooding

• Ensure, through appropriate by-laws and control mechanisms that faecal and solid wastes are not discharged into storm water drainage systems.

5.5.3 Treatment and Disposal of Waste

Environmental sanitation services, including the selection of technologies for waste treatment and disposal shall be governed by specifications and guidelines to be issued by the National Government through NESCRA in collaboration with WASREB and NEMA. County governments shall ensure that sites for the treatment and disposal of wastes (landfills, composting facilities, waste stabilization ponds, trickling filters, septage treatment plants, etc.) are located so as not to create safety and health hazards or aesthetic problems in the surrounding area. To ensure the adequate provision of such sites, county governments, NESCRA, NEMA and other relevant regulatory agencies shall:

- Produce medium and long-term plans for the provision of treatment and disposal sites, including the preparation of Environmental Sanitation Impact Assessments (ESIAs)
- Acquire sufficient land and secure title with payment of due compensation for the land for immediate and future use and protect such acquisitions by proper demarcation and fencing.
- Ensure that the sites are managed so as to satisfy approved environmental protection standards.

The national government shall review relevant legislation on the acquisition of land for treatment and disposal sites and establish legislative and administrative provisions to facilitate site valuation, negotiation and payment of compensation by county governments. To support adequate treatment and final disposal of all wastes, county governments shall:

- Ensure adequate systems for managing wastewater treatment, re-use and disposal.
- Adopt such on and off-site treatment and disposal systems taking due consideration of the capital and replacement costs, operation and maintenance costs and skilled manpower requirements.
- Ensure that the development and siting of communal storage and transfer depots, treatment and disposal facilities conform to statutory land-use norms and regulations;
- Ensure that treatment and disposal facilities are provided and used in accordance with prescribed standards including the preparation of ESIAs.
- Ensure that the facilities are managed so as to satisfy approved environmental protection standards.
- Encourage private sector in the development and management of treatment facilities.
- Encourage technologies that enable safe recycling and re-use of waste streams.

5.5.4 Management of Industrial Wastes

Industrial wastes of significant importance include wastes from sawmills, food processing factories (canneries, breweries, metal works, etc.) classified as solid, liquid or gaseous wastes. To effectively manage industrial waste from diverse sources, the policy provides as follows:

- The disposal of solid wastes specific to an industry shall be carried out in compliance with the standards and procedures prescribed by NESCRA, NEMA and other relevant regulatory agencies.
- Industrial plants shall undertake or arrange for the conveyance of their wastes to an approved disposal site.
- Liquid industrial effluents shall be pre-treated by industries to prescribed standards before discharge into the environment (land, public drains, sewers, water courses and other receiving water bodies).
- Gaseous emissions from industrial activities and processes which may have adverse effects
 on the environment shall be treated to the prescribed standards specified by the relevant
 regulatory agencies.
- All generators of toxic, radioactive and other special wastes shall be required to comply
 with the standards prescribed by the relevant regulatory agencies for collection, storage,
 transportation, treatment and final disposal.

5.5.5 Management of Healthcare Waste

Health care facilities generate a large amount of wastes which are harmful to human health and the environment. Health care waste include cultures and stocks of infectious agents and associated biologicals, laboratory waste, biological production wastes, discarded live and attenuated vaccines, culture dishes and related devices, blood and blood products and body fluids, pathological waste including human organs, tissues, products of conception and body parts. Medical waste also includes sharps (needles, syringes, scalpels, intravenous tubing with needles attached), and any other medical or laboratory instruments or glassware that might cause punctures or cuts.

There are also contaminated wastes from animals, primarily research animals exposed to agents infectious to humans. However, in most health care settings, health care or medical wastes are poorly managed due to lack of facilities for collection, storage and environmentally safe disposal. KESHP aims at improving medical waste management in all healthcare facilities and ensure compliance with the set regulations and standards. For the correct, efficient and effective management of healthcare/medical wastes in health facilities, county health departments and the responsible health facilities in collaboration with NESCRA, NEMA and other regulatory agencies shall:

Review medical waste management guidelines for health care facilities to protect public
health and safety, provide a safer working environment, minimize waste generation and
environmental impacts of medical waste disposal and ensure compliance with legislative and
regulatory requirements.

- Ensure that all health facilities develop and implement healthcare/medical waste management plans.
- Ensure that all health facilities have adequate and appropriate provisions for environmentally safe collection, storage, transportation, treatment and disposal of medical wastes.
- Ensure that all new health facilities are appropriately designed and constructed with the
 necessary medical waste management facilities, while taking into account the different
 types of medical wastes.
- Ensure that all medical wastes are packaged, contained and located in a manner that prevents and protects the waste from release at the facility or at any time before ultimate disposal.
- Ensure that various categories of medical waste are separated at the point of origin into appropriate, properly labeled containers. Containers used to collect, transport, or store medical waste are clearly labeled with a biohazard symbol or with the words "medical waste" written in clear and legible letters according to set standards.
- Ensure that medical wastes are not compacted or mixed with other waste materials before
 decontamination or incineration and disposal. If decontaminated medical waste is mixed
 with other solid waste, the container must be clearly labeled to indicate that it contains
 decontaminated medical wastes.
- Ensure that medical waste stored in a generating facility is stored in such manner that
 putrefaction will not occur and infectious agents will not come in contact with the air or
 individuals.
- Ensure that medical waste is not stored outdoors or in any unsecured area but in a secured area to prevent access to the waste by unauthorized individuals not responsible for disposal.
- Ensure that medical wastes are not stored on the premises of the producing department for such period of time as shall be prescribed by regulation.
- Ensure that all health facilities capacity are built and that all health staff are trained on medical waste management in health care settings.
- Ensure that the cost of managing medical wastes in health facilities including operation and maintenance costs are covered by adequate budgetary allocations by the health facilities.

In segregating, packaging, labeling, collecting and ensuring environmentally safe disposal of medical wastes, county health departments in collaboration with NESCRA and other relevant regulatory authorities shall ensure that the health facilities observe the following procedures:

- All sharps are placed in rigid, puncture-resistant containers appropriately labeled. The
 filled containers must be autoclaved at the generation site and transported to a secure
 storage area prior to being incinerated.
- Contaminated animal wastes must be placed in plastic bags and transported directly to the incineration facility.

- Minimal quantities of residue liquid wastes including blood, body and animal fluids must
 be flushed down a sanitary sewer with large amounts of water. Larger quantities of liquid
 wastes are to be solidified, placed into secure storage and incinerated.
- Tissues, cultures, blood products and other laboratory wastes must be placed in labeled
 plastic bags and autoclaved. After autoclaving, the bags must be labeled to indicate
 they contain decontaminated medical wastes and placed into secure storage prior to
 incineration.
- All medical waste as appropriate shall be ultimately disposed of by incineration either on the facility or by a licensed contractor.
- No medical waste will be disposed of by landfilling unless shredded or appropriately treated before disposal into a landfill.
- All disposable objects that may cause skin punctures or cuts must be placed in rigid, puncture resistant containers.
- Appropriate personal protective equipment (PPEs) must be worn by personnel when handling medical waste.
- At the health facility, puncture guard/sheath props must be used when removing and replacing the needle sheath.
- Each department generating medical waste shall designate an individual to oversee the handling of medical waste and assure compliance with the set medical waste management plan.
- For large health facilities, the Public Health officer incharge of hospital sanitation shall be responsible for the overall administration of the medical waste management plan and shall perform periodic inspections and surveys of medical waste handling procedures to assure compliance with the relevant medical waste management regulations and standards as well as the facility's medical waste management plan.
- Promote the use of green energy for waste incineration.

5.5.6 Management of e-Waste

Electronic waste (e-waste) refers to electronic products or equipment or devices consisting of valuable as well as harmful and toxic components that have outlived their usefulness and are due for disposal.³⁶ E-waste includes all components, sub-assemblies and consumables, which are part of the product at the time of discarding. These include discarded computers, office electronic equipment, entertainment devices, mobile phones, television sets and refrigerators. The toxic components of these e-wastes include lead, mercury and cadmium. Improper disposal of e-wastes with hazardous toxins however, present a major threat to the environment and human health. The environmental hazards of e-waste include groundwater contamination, atmospheric pollution and water pollution either by immediate discharge or due to surface runoff. The e-waste threats to human health include occupational safety and health effects among those directly and indirectly

³⁶ Sthiannopkao S, Wong MH. (2012) Handling e-waste in developed and developing countries: Initiatives, practices, and consequences. Sci Total Environ.

involved, due to the methods of processing the waste.³⁷ High levels of lead in young children's blood can also impact IQ and the development of the central nervous system.

With the increase in e-waste generation and its consequent threat to the environment and health, this policy aims to promote safer and more responsible methods of e-waste management, including recycling of the waste. The policy recognizes that proper disposal or recycling or reuse of electronics can help prevent health problems, create jobs, and reduce the negative impact on the environment including greenhouse-gas emissions. Kenya specifically takes note that countries such as South Korea, Taiwan, and China have all excelled in finding "retained value" in used electronic goods, and have set up multibillion-dollar industries in e-waste recycling and refurbishment. To achieve this, the ministries of Health, Education Science and Technology, Environment and Natural resources, Trade and Industry, NESCRA, NEMA, county governments including town and city authorities in collaboration with manufacturers, retailers, recyclers and other stakeholders in the e-waste value chain shall:

- Designate specific areas for e-waste recycling, including disassembly, burning and disposal.
- Encourage the private sector to invest in responsible and sustainable e-waste recycling ventures and facilitate exchange and benchmarking visits to countries successful in e-waste recycling.
- Promote environmentally sound and appropriate technologies for e-waste recycling including recovery and minimization of e-waste generation. Responsible recycling ensures best management practices of the electronics being recycled, worker health and safety, and consideration for the environment.
- Push for the continuous improvement of electronics recycling practices and standards to ensure adequate safety and minimise the negative impact on the environment and human health.
- Encourage electronic recyclers to become certified by demonstrating to an accredited, independent third party auditor that they meet specific standards to safely recycle and manage electronic wastes.
- Develop and implement a strategy for public education and sensitization of the communities, institutions on the hazards of e-wastes.
- Facilitate the development of capacity for various e-waste stakeholders at different levels on e-waste management and operations.
- Provide staff with the necessary or requisite skills, knowledge, instructions, equipment and devises for e-waste management and operations.
- Develop e-waste management training modules in collaboration with universities and technical training institutions, covering technical maintenance, dismantling and safe e-waste management methods.

³⁷ United Nations News Service (2010), "As e-waste mountains soar, UN urges smart technologies to protect health", *United Nations-DPI/NMD - UN News Service Section.*

- Ensure that all companies take full responsibility for their products and, once they reach the end of their useful life, take their goods back for re-use or for safe recycling or disposal.
- Develop and enforce regulations, standards and guidelines on e-waste recycling, reuse, importation of used electronics and environmentally sound disposal of e-waste to minimise the dangers to human health and the environment that disposed and dismantled electronics can create.

5.5.7 Cleansing and Maintenance of a Clean and Healthy Environment

To maintain a clean environment within their areas, county governments, city, and town authorities, the private sector, CSOs, communities and neighbourhood associations shall:

- Ensure the provision of public cleansing services to cover all facilities used by the general public, e.g. bus and lorry parks, markets, public gardens, streets, public beaches, river banks, drains, ports of entry and healthcare settings.
- Designate particular days every two months for environmental cleanups in all public places and neighbourhoods.
- Give priority to the maintenance of a clean and pleasant environment in public places including neighbourhoods.

5.5.8 Protection of Wetlands and Water Courses from Indiscriminate Disposal of Wastes

To protect wetlands and water courses under threat from indiscriminate disposal of waste, county governments in collaboration with NESCRA, NEMA, Water Resources Management Authority (WRMA) and other relevant regulatory agencies shall:

- Identify all environmentally sensitive areas such as wetlands and water courses prone to impact from waste abuse.
- Provide adequate targeted services in areas close to wetlands, water courses and other vulnerable water resources prone to waste abuse.
- Ensure that County Environmental Sanitation and Hygiene Strategic and Investment Plans (CESHSIPs) address issues of pollution of water resources.

5.5.9 Reducing the Negative Impact of Poor Environmental Sanitation

Environmental sanitation and hygiene services shall be appropriately designed to suit the needs and demands of different population groups, typically rural, small towns, cities and municipal areas including peri-urban and informal urban settlements as well as specialised target groups such as industries, commercial areas, public places and institutions. To contain and reduce the negative impact of poor environmental sanitation, the government at national and county levels shall prepare their respective Environmental Sanitation Strategy and Action Plans (ESSAPs),

National and County Governments through NESCRA shall in particular:

- Ensure that all city and town authorities prepare Environmental Sanitation Strategic and Action Plans (ESSAPs).
- Develop and/or update, disseminate and monitor standards and guidelines (including the use of environmental sanitation assessments and audit procedures) for all components of environmental sanitation services at all levels and segments.
- Take measures to ensure that all environmental sanitation services at all levels meet minimum prescribed sector standards.
- Ensure that sites for treatment and disposal of wastes (landfills, composting facilities, waste stabilization ponds, trickling filters and sewage treatment plants) are located so as not to create safety and health hazards or aesthetic problems in the surrounding area
- Maintain adequate capacity to intervene and provide sanitation services in the event of failure of the private sector to deliver services due to any reason, including industrial actions in their establishments.
- Ensure that services meet the needs of specific target groups, including vulnerable people, women, children, persons with disabilities and the poor. Adequate options of facilities must be available for all segments of the population, especially the vulnerable.
- Ensure that various levels of service meet the health needs of people and the environment and are consistent with related services such as water, energy and transport.
- Develop mechanisms for integrating the activities of "scavengers" at dumpsites for improved waste collection, transfer, treatment and disposal.
- Encourage private sector investment, development, and management of sanitation infrastructure.

5.5.10 Food Safety and Hygiene

To assure highest standards of food hygiene, county governments including city and town authorities shall:

- Establish and run programmes to control the sale of prepared foods, including the specification of utensils and display containers.
- Register all eating establishments and food premises and specify the standards to be observed.
- Ensure that all communities that need slaughtering facilities have access to them, either as public or private facilities.
- Ensure the availability of suitable and hygienic market facilities for the handling, display and preservation of meat, fish and other perishable foods to prevent contamination and decomposition.
- Undertake regular inspection of all food outlets and slaughterhouses.

- Establish effective mechanisms and enact appropriate legislation including by-laws for inspection, monitoring and the enforcement of standards.
- Make by-laws allowing for the development of markets by the private sector and provide for their control.

5.5.11 Vector and Pest Control

For the effective control of vectors and pests that are a threat to public health, national and county governments including city and urban authorities shall:

- Make arrangements, directly and through the private sector, for the effective and continuous control of insect vectors and pests, especially mosquitoes and flies by providing infrastructure and services (drainage, waste management, public education and action campaigns, and the application of chemicals or other control measures to critical sites including airports, vessels, institutional settings and other public places).
- Give priority to the control of rats and mice in the markets and other public places and allow private participation in all other pest control services.
- Make by-laws for the registration and control of private pest control operators.

5.5.12 Disposal of the Dead

To ensure healthy and dignified disposal of the dead, there shall be national and local legislation empowering county governments to perform relevant functions by:

- Regulating the burial and cremation of the dead and providing all facilities and services related to the handling, transportation and preservation of the dead.
- Making adequate and appropriate arrangements for the registration of deaths and the control of burials and cremations as specified in the Registration of Births and Deaths Act and adhere to all relevant legislations.
- Ensuring that all communities have approved cemeteries as well as approving private burial grounds. Standard specifications for the siting of cemeteries, works for the protection, drainage, and beautification of these facilities and provision of access roads shall be issued by county governments. Appropriate national legislation shall be enacted to facilitate the acquisition of lands for public cemeteries.
- Regulating the provision and operation of crematoria facilities in accordance with the
 national legislation in force. Private organisations shall be allowed to provide and operate
 crematoria. The provision of crematoria by county governments shall however not be
 mandatory.
- Allowing (subject to the provisions of relevant national legislation), the provision and operation of private mortuaries.

5.5.13 Control of Rearing and Straying of Animals

To ensure effective control of rearing and straying animals especially in urban areas, county governments including city and town authorities shall:

- Make regulations to control the rearing and straying of animals, so as to protect humans from the health hazards and sanitary nuisances arising therefrom. Existing legislation shall be reviewed and strengthened when necessary.
- Enforce with adequate penalties for offences, the relevant regulations and by-laws applicable to the control of the rearing and straying of animals including the control and keeping of dogs in designated areas of a community or limiting the number of animals to be allowed.

5.6 Policy Strategy #3: Fostering Private Sector Participation and Investment in Sanitation

Policy 3:

To foster strong private sector participation and investment in creating sanitation demand and increasing uptake of appropriate products and services.

The government recognizes the role played by both the larger scale sanitation industry players such as manufacturers, sanitation service providers, waste management companies and the small scale independent providers/entrepreneurs (SSIPs) involved in the development and delivery of sanitation and hygiene products and services. Sanitation services delivered by the private sector come in many forms ranging from latrine construction, efficient operations, demand generation for sanitation and hygiene services, sanitation marketing, safe waste removal, disposal recycling, reuse and recovery. The private sector is also the driving force behind the development, manufacturing and retail of various sanitation and sludge management technologies and products. Enhancing the ability of the private sector to deliver desirable and affordable sanitation and waste management products and services is therefore crucial for improving access. The policy therefore aims to foster strong private sector participation and investment in creating sanitation demand and increasing uptake of appropriate improved sanitation and hygiene products and services especially targeting the rural, poor urban and peri-urban populations.

5.6.1 Enhancing Private Sector Participation

The private sector shall be encouraged and facilitated for active involvement in the creation of sanitation demand, product development and provision and operation of sanitation and waste management services and infrastructure. The government at both national and county levels shall empower and support private sector initiatives with required legal instruments, including exemptions and the creation of an enabling environment to promote different technology options from the private sector. To encourage sustainable private sector involvement, the government shall develop enabling policy guidelines and standards to regulate private service providers in

their delivery of sanitation goods and services, including their contribution to planning and programming activities.

To accelerate appropriate technology development for the poor, the national and county government levels and partners shall continue to expand existing sanitation technology programmes, including supporting the improvement and development of pro-poor sanitation products and service delivery at the small-scale independent providers/entrepreneurs (SSIPs) level. Through sanitation marketing, the governments shall encourage landlords and households to purchase improved latrine products and services from local businesses.

To address issues of financial exclusion for the poor and people with special needs such as the chronically ill, the elderly and persons with disability, the government shall design appropriate market-compatible financing options including new types of cash transfer and social subsidies to enable households in the lower wealth quintiles to purchase through the market, while maintaining incentives for others who can afford to purchase on their own. Sanitation market development shall in particular take into consideration different access bottlenecks and factors such as equity and social inclusion considerations, different consumer needs, challenges of rocky ground and high water tables, congested, low-lying, flood-prone urban areas and sanitation in non-owner occupied houses in low-income slum and peri-urban settlements.

5.6.2 Sanitation Marketing

Sanitation Marketing (SanMark) uses commercial and social marketing techniques to foster and sustain the uptake of appropriate improved sanitation and hygiene products and services with strong private sector participation and investment. Sanitation marketing interventions shall employ appropriate commercial marketing techniques to develop new products, create/increase demand for products and make the products accessible to the consumers. Sanitation marketing interventions on the other hand shall engage social marketing techniques to promote the adoption of hygienic products or hygienic behaviours that seek to improve the health or well-being of the target population as a whole. SanMark's core goal shall be to catalyze the market to respond to market demand and to better serve the needs of the population, especially the poor. The national and county governments and partners shall actively promote sanitation marketing techniques to promote the construction and use of sanitation facilities including toilet and excreta disposal systems such as sewerage development and connections, ventilated improved pit latrines and other improved sanitation mechanisms.

To address the barriers to sanitation market development, the policy proposes to undertake a comprehensive baseline analysis including consumer preferences, needs and drivers and to develop linkages between sanitation demand promotion and product availability through robust public-private partnerships. Specific approaches to sanitation marketing shall include:

 Sanitation and hygiene promotion to effectively link the introduction and adoption of appropriate technology with behaviour change through targeted approaches such as mass media campaigns using commercial or social marketing techniques. Social marketing

- techniques shall be applied to develop a BCC plan that creates demand for sanitation by households
- Supporting community efforts through the development and dissemination of appropriate
 information. Target audiences and appropriate messages will include not only household
 decision-makers but also those responsible for budget allocations and investment decisions
 at all levels of government. Prominent opinion leaders with widespread credibility
 will be encouraged to participate in such sanitation marketing initiatives as sanitation
 ambassadors.
- Supporting programmes to build capacity and train personnel at county, municipal and community levels to act as facilitators of community participation, decision-making and empowerment programmes. The government will especially seek to enhance the active participation of women and other marginalized groups in sanitation decision-making.
- Advocating for increased national and county government budgetary provision for sanitation marketing programmes to promote the available options of appropriate sanitation and hygiene products and technology solutions.
- Advocating for increased investment in product development and product management.
- Promoting appropriate and affordable product and service options and focus on effective distribution mechanisms to reach especially rural, poor urban and peri-urban consumers.

5.7 Policy Strategy #4: Building Enabling Legal and Regulatory Environment for Sanitation

Policy 4.

To establish an enabling legal and regulatory environment for sanitation at both national and county levels.

Environmental sanitation involves a wide range of actors with different levels of responsibilities requiring laws not just to regulate their activities, but also to provide the right incentives necessary for enforcement management. The aim of this policy is therefore to establish an enabling legal and regulatory environment for sanitation and ensure effective enforcement management as a critical element of engendering behaviour change in Kenya.

5.7.1 Strengthening Legislative and Regulatory Environment for Sanitation

Given the prevailing high levels of non-compliance with existing public health and environmental sanitation rules and regulations compounded by weak and poorly enforced environmental sanitation legislation, inadequate regulation for mainstreaming alternative uses of wastes through appropriate incentives and inadequate sector-wide standards for sanitation service provision, there is the need to reinforce the legal regime and its enforcement. The roles of the Judiciary and law enforcement agencies are of critical importance in this regard.

This policy provides for actions that will lead to harmonising sector laws and promulgating appropriate and enforceable regulations. Implementing these actions together with other aspects of plans and programmes will lay the basis for improving compliance and enforcement management. National and county governments shall therefore:

- a) Review and develop enabling national and county level legislation to implement Articles 42, 43 (1)(b), and the Fourth Schedule Part 2 (2), (11) and other relevant provisions of the Constitution and Kenya's international obligations, and to support the institutional requirements for regulation and management of environmental sanitation.
- b) Make available to all sector actors updated sector-wide standards, laws and regulations on environmental sanitation.
- c) Promote mainstreaming of alternative uses of wastes (liquid and solid) through appropriate technologies and incentives.
- d) Promote reuse of wastes for agricultural, livestock, and energy purposes.
- e) Institute regulatory mechanisms that safeguard wetlands and water courses
- f) Institute measures to safeguard groundwater from contamination from poor environmental sanitation practices.
- g) Institute a means of incorporating and adhering to international conventions into domestic law.
- h) Encourage private sector investment in the development and management of environmental sanitation related infrastructure and services.

In strengthening the legislative and regulatory environment for sanitation at the national level, the Ministry of Health in partnership with relevant ministries and other relevant agencies shall take the following actions:

- Review existing laws relating to sanitation and identify all existing and proposed institutional arrangements that require legal backing for effectiveness.
- Ensure enactment of national environmental health and sanitation law to support institutional functions relating to sanitation including encouraging private sector participation, public-private partnerships, financing and funding arrangements, licensing, monitoring, control and ownership of wastes, point and non-point discharges, acquisition of land for treatment and disposal sites, including procedures for site valuation, negotiation and payment of compensation.
- Enact, update, make available to all sector actors, disseminate and enforce sector-wide standards, laws and regulations on environmental sanitation.
- Develop environmental sanitation impact assessment guidelines and standards and ensure that all developments comply with NEMA environmental assessment regulations.
- Engage with NESCRA and NEMA on regular updates of environmental sanitation assessment standards and progress.

- Support the strengthening of the capacity of the Judiciary and law enforcement agencies in dealing with environmental sanitation and related issues.
- Develop model by-laws covering all aspects of environmental sanitation.
- Ensure that city and town authorities promulgate by-laws consistent with model by-laws while taking into consideration specific local conditions.
- Develop regulation to support waste reduction, re-use, recycling and recovery.
- Enact and enforce legislations/regulations/by-laws prohibiting the dumping of waste in wet lands and water courses (including drains).
- Enforce existing statutes and regulations on the prevention of pollution of ground water sources.
- Institute adequate measures to protect beaches and prevent marine pollution
- Develop rapid response systems for adopting emerging international regulations on issues such as global warming, e-waste as well as special hazardous waste.
- Ensure effective regulation for prevention of trans-boundary dumping in a free-trade regime.
- Enforce anti-dumping conventions and protocols.
- Enact statute for compulsory participation of environmental sanitation officers in destination inspections at entry points

In addition, NESCRA in collaboration with WASREB and NEMA shall issue specifications and guidelines for Environmental Sanitation and Hygiene Services including the selection of technologies for waste treatment and disposal.

5.7.2 Sanitary Inspection and Law Enforcement

Sanitation education and hygiene promotion for raising awareness and behaviour change shall go hand-in-hand with sanitary inspection and enforcement of sanitary regulations. Sanitary inspection and law enforcement programmes shall be applied at all levels of service provision.

- The public health departments of county governments, city and town authorities shall inspect the plans of all new buildings to ensure that they conform to sanitary regulations and approve the issuance of the certificate of occupation/habitation when the buildings are completed.
- All premises (residential, commercial, institutional and industrial) shall be periodically
 inspected to ensure that the provisions of the relevant laws and the building code are
 observed by occupants.
- All undeveloped and vacant lots within the city, municipal or town boundary, as well as
 public parks, gardens, beaches and recreational areas shall be inspected periodically to
 ensure the maintenance of hygienic environment and amenities.

 All county governments shall enact appropriate sanitary legislation and by-laws to facilitate inspection and enforcement programmes and empower relevant officers to perform their functions effectively.

5.7.3 Strengthening Standardisation and Supply Chain Systems

NESCRA in collaboration with the relevant ministries, NEMA, WRMA, WASREB, the Kenya Bureau of Standards, the private sector and other relevant agencies shall develop standard specifications and selection criteria for sanitation and hygiene equipment and supplies. These responsibilities shall include requirements for the local availability of spare parts and technical support services. Equipment and supplies to be procured for use by service providers at various levels shall hence be standardised to facilitate and reduce the cost of operation and maintenance. All procurement shall be in line with the Public Procurement Act. The standard specifications and selection criteria for equipment and supplies shall be issued periodically by the Ministry of Health as national guidelines. Consideration shall be given to an annual prequalification of suppliers to be undertaken by the ministry and county health departments, city and town authorities.

These institutions and the private sector shall make arrangements, through a coordinating body fairly representing all stakeholders, for the joint procurement of essential equipment and supplies for environmental sanitation service providers. Whilst the service providers (public and private) shall have the primary responsibility for procurement, subject to the guidelines on specification and selection issued by the ministry,, joint procurement arrangements will be deemed more effective for large purchases or imported items. The coordinating body shall agree on occasions when joint procurement is to be preferred.

To improve private sector sanitation supply chain the following policy actions will be undertaken:

- National and county-by-county sanitation supply chain study focusing on among other things need for point of purchase credit/revolving fund and/or other financing support for private sector players and entrepreneurs. The results of the study shall be used to improve the sanitation supply chain.
- Piloting of support to small-scale independent providers/entrepreneurs (SSIPs) including small scale transport companies for human and solid waste management.
- Training in specific technical and business management skills and technology, wastewater treatment and solid waste management for sanitation entrepreneurs.
- Ensuring quality assurance of sanitation products and services to protect the consumers from sub-standard products.
- Creating an enabling environment for private sector engagement in sanitation product manufacturing, sanitation service provision, sludge and waste management and treatment by providing technical support on linkages between demand creation and supply of sanitation solutions and infrastructure.

5.8 Policy Strategy #5: Building Governance and leadership Capacity for Sanitation

Policy 5: Objective

To strengthen governance, leadership, institutional and human resource capacity of the sanitation sector for efficient and effective delivery of sanitation and hygiene services.

The governance and leadership capacity development theme covers all issues of governance, leadership, institutional and human resource development. The policy objective is to strengthen the governance, leadership, institutional and human resource capacity of the environmental sanitation sector for efficient and effective provision of sanitation and hygiene services at all levels.

5.8.1 Governance, leadership and institutional capacity development

The policy recognises institutional strengthening as one of the top priorities for achieving sustainable services. Since environmental sanitation and hygiene is one of most devolved functions of government, the need to build, strengthen, and maintain the required institutional capacities for effective management and delivery of ESH services at all levels including city and town levels will be imperative. The national and county government levels shall take the following measures and actions in governance, leadership and institutional development for environmental sanitation:

- Strengthen the capacity of the Environmental Health and Sanitation Department of the Ministry of Health to effectively play its national policy, oversight, coordination, capacity building, technical support, research and development, resource mobilisation, M&E functions and mandates.
- Strengthen the national environmental sanitation information management centre or clearing house at the ministry to facilitate informed decision-making within the sector as well as capacity building (particularly within the ESH sector institutions). This function will entail information management, peer learning and lesson sharing through various mechanisms, such as Internet-based knowledge hubs, email-based newsgroups, newsletters, forums, conferences, workshops, mass media and social media programmes. The ultimate goal shall be to ensure that all sector players are enabled to contribute to and access appropriate knowledge from local and international information networks.
- Establish the National Environmental Sanitation Coordinating and Regulatory Authority (NESCRA) to provide one accountable national institution that takes leadership of the national sanitation portfolio, coordinates and regulates the sector. The membership of the authority shall include all key stakeholders in the sanitation sector. The authority shall support and facilitate capacity development of the city, municipal, town, private sector, NGO and community-based environmental sanitation service providers.
- Strengthen multi-sector and multi-partner accountability mechanisms for delivery of sanitation and hygiene sustainable development results.

- Review, strengthen and establish effective and well-functioning stakeholder co-ordination mechanisms that draw on inter-governmental mechanisms.
- Strengthen multi-sectoral co-ordination for accountability of results of the policy. Ministry of Health, County Governments including city, municipality and town authorities and NESCRA will ensure coherence and close collaboration among CSOs, FBOs, the private sector and public sector stakeholders including the Ministry of Water and Irrigation, Ministry of Environment and Natural Resources, Water Services Trust Fund (WSTF), National Sanitation Fund, (NASF), NEMA, WASREB and WRMA to align and harmonise sector activities at national and county levels. The aim will be to improve efficiency and effectiveness of the co-ordination mechanisms to promote equality, strategic partnerships and alliances, stakeholder accountability for results and synergise efforts.
- Build and sustain high level political and technical commitment for strengthened national and county government ownership of the sanitation and hygiene infrastructure development and services.
- Entrench good governance and ethical practices in the sector by identifying, developing and nurturing effective and committed leaders for sanitation and hygiene sector in line with Article 10 and Chapter Six of the Constitution and Ethics and Anti-corruption Act.

5.8.2 Capacity Building, Education, Training, and Skills Development for Sanitation

Capacity building education, training and skills (CETS) development will form a major component of the support offered to the sector. The CETS development strategy will take into account the need to accelerate and expand formal and structured training and education programmes in environmental sanitation and hygiene in the light of the following critical challenges:

- Gaps between the existing and required levels of competence to plan, implement, operate, and maintain the ESH infrastructure.
- The shortage of skilled personnel for planning, management, policy formulation, researchand law enforcement including engineers, planners, artisans and prosecutors.
- Inadequate management capacity.
- The shortage of accredited training service providers.

The Ministry of Health in collaboration with Public Service Commission and County Public Service Boards and the relevant training institutions will take responsibility for training needs analysis, development of course curricula and training materials, implementation of capacity-building and educational activities. To enhance community-based hygiene and sanitation participation, the county government shall collaborate with the private sector and relevant technical training institutions to train local artisans and develop appropriate learning materials. The Ministry of Health and county governments will also work with the Ministry of Education, Science and Technology to promote environmental health, sanitation and hygiene education as a compulsory subject in school curricula from the Early Childhood Development Education (ECDE) schools,

through to primary and secondary schools to tertiary institutions especially teacher training institutions. Other informal school instructors shall be trained in basic environmental health, sanitation and hygiene education.

The county governments will further work with stakeholders through community health structures to promote environmental health, sanitation and hygiene education as an integral part of all community water supply and sanitation projects. The education shall address such basic subjects as personal hygiene, hand-washing with soap at critical times, safe disposal of excreta, household water safety, the cleanliness of kitchens, food hygiene, domestic solid and liquid waste disposal and community storm-water discharge.

The government at national and county levels shall specifically take the following measures and actions in capacity building through environmental sanitation training and education:

- Work with schools of public and environmental health to upgrade or develop accredited programme on Environmental Sanitation and Hygiene (ESH) including curriculum, structure and staffing.
- Review training curricula to provide specialised training environmental protection, contract management and supervision, sanitation marketing, marine pollution, sanitation planning, public relations, prosecution and law enforcement and monitoring and evaluation.
- Review the mandates of port health inspections to include marine pollution and update knowledge and skills of environmental health officers to deal with marine-pollution related issues.
- Establish and support effective implementation of expanded sanitary inspections and compliance enforcement and related programmes.
- Mainstream the use of ICT for sanitation through training.

5.8.3 Rewarding Best Performance and Practices

The national government through NESCRA will provide financial and non-financial incentives for recognizing and rewarding best performance in environmental sanitation and hygiene service delivery, innovations and promotion of good environmental sanitation and hygiene practices. County Governments may also establish county-level reward systems for best performance in environmental sanitation and hygiene service delivery and innovations.

a) Open Defecation Free (ODF) Status Award: Financial incentives and trophies will be made available to all counties and villages that achieve and sustain an 'open defecation free' status. ODF counties and villages will have completely eradicated the practice of open defecation and having ceased all effluent/seepage releases into open drains. These rewards in the form of financial incentives/grants will be disbursed in two instalments, the first instalment when a county or a village can prove that it has achieved 'open defecation

free' status and a second installment after a period of time (say three years) once the county or village has proved that it can sustain ODF status. A monitoring system through NESCRA and a county-based system will be developed to verify and validate the 'open defecation free' status prior to the release of funds.

- b) Universal Urban Improved Sanitation Coverage Award: Fiscal incentives will be made available to cities, and towns that achieve 100 percent improved sanitation coverage status. Those that will have achieved 100 per cent sanitation improved sanitation coverage, in addition to being 'open defecation free', shall have demonstrated 100 percent improved sanitation coverage of individual households, schools and public areas; that it is free of indiscriminate solid waste disposal and that it has eradicated all stagnant water sites. To be eligible for the "100 percent sanitation coverage" incentive grant, a city or town must demonstrate that it has developed systems to ensure that the safe disposal of excreta, solid waste and drainage is managed efficiently on an ongoing basis. NESCRA will contract external agencies to validate all "100 percent improved sanitation status applications prior to the release of funds.
- c) The Cleanest City, Municipality and Town Award: To promote excellence in the delivery of sanitary outcomes, a 'cleanest city, or town' competition will be introduced. This scheme will provide a prize to the city, or town in each county achieves the highest standard in delivering a clean and healthy environment and 'quality of life' outcomes.
- d) The Cleanest Industrial Plant Award: The industrial category shall be judged by an independent panel appointed by NESCRA) in consultation with NEMA based on a criteria that includes best effluent emission techniques, efficient treatment within premises, combined efficient treatment facility, safe disposal techniques and solid waste disposal management.
- e) The best public-private partnership Award: To promote participation of private sector in service and infrastructure development across the sanitation value chain and to encourage National, County, City, Municipality, or Town authorities to create an enabling environment for private sector participation, this scheme will provide a prize to the City, Municipality, or Town in each county that has developed and successfully the best public-private partnership project to improve sanitation and hygiene.
- **f) Other Awards:** NESCRA and partners may establish other awards such as the best propor technology innovation award, most innovative small-scale independent sanitation service providers/entrepreneurs award, cleanest school award, individual sanitation champion and leadership award and best institutional sanitation award.

5.9 Policy Strategy #6: Sustainable Sanitation Financing and Investment

Policy 6: Objective

To ensure sustainable financing for sanitation through public and private investment.

Provision of environmental sanitation facilities requires substantial investments, while their continued maintenance and use entail costs incident on individuals, households, communities and government. A major constraint in the provision of sustainable environmental sanitation services however, continues to be the low levels of funds allocated to the sector, and non-economic tariffs charged for services. The situation is compounded further by low levels of revenue collection by service providers and unsustainable financing of services with an increasing burden on public sources. It is also common for government agencies to give priority to raising funds for improving water supplies rather than for improving environmental sanitation and hygiene. Yet, studies have shown that while investment in water supplies alone can result in significant health improvements in a community, those health benefits are massively compromised by relatively small investments in improving sanitation and hygiene practices. It is therefore essential that levels of service are economically appropriate and that mechanisms for funding them are sustainable. This policy therefore aims to provide the enabling framework for attracting funding to the sector and ensuring sustainable financing for sanitation through public and private investment.

5.9.1 Sanitation Financing Approach

The policy envisages a comprehensive framework for mobilising required resources to accelerate universal access to improved sanitation in line with the Constitution of Kenya, the Kenya Vision 2030, the Ngor Declaration and the global Sustainable Development Goals (SDGs). The sanitation financing will mainly engage the following three key approaches:

5.9.1.1 Sector-wide Sanitation Financing

Since all economic development activities have direct impacts on the state of environmental sanitation, it will be essential that mechanisms are developed to source funds from all sectors of the economy to remedy the current state of deterioration and begin a programme of incremental progress that would match economic growth towards a middle-income status by 2030. The funding for ESH activities will therefore be sector-wide, while individual households and other stakeholders will be expected to contribute to these costs.

5.9.1.2 Cost-Sharing

Arrangement for funding sanitation projects in both rural and urban areas including peri –urban, slum and informal settlements shall be clearly and equitably spelt out. In particular, capital investment for sewerage, storm water, waste management infrastructure and on-site sanitation systems in rural areas, small and medium size towns, cities and municipalities shall involve cost sharing between national and county governments. The terms and framework for cost sharing

between the national and county governments shall be negotiated through intergovernmental mechanisms such as the Intergovernmental Budget and Economic Council (IBEC).

5.9.1.3 Cost Recovery

Direct cost recovery from users shall be applied where it is possible to charge a full commercial price covering all operating and capital costs for services such as liquid and solid waste collection, public toilets and issuance of permits. County governments shall encourage private sector service providers to participate in the setting of tariffs for services. However, tariffs shall be set at levels that will not discourage the use of the services, especially where this would create health risks. A policy on tariffication that is affordable, fair, and sustainable while ensuring continuity and expansion of sanitation facilities shall be incorporated.

Where full direct cost recovery is not possible, the shortfall or the cost of any services not charged for shall be subsidised by the county governments from additional revenues generated in other sanitation services or from other revenues of the county government. To this end, the county governments shall actively pursue the establishment of systems to generate sustainable revenues to cover the costs of sanitation services. This activity shall be treated as a major factor for achieving sustainability where the services can be designed to earn revenue. Amongst options to be considered will be the inclusion of an element to cover environmental sanitation in other fees, rates or other charges levied by the county governments, direct levies on producers of pollutants, especially non-biodegradable pollutants such as plastics and the use of a reasonable proportion of the Constituency Development Funds (CDF) and the Equalization Fund to subsidise the cost of sanitation services, especially for marginalized areas within counties and poor urban neighbourhoods such as slums and informal settlements. Subsidies, where they exist, shall be transparent, effective and equitably applied.

5.9.2 Key Sources of Sanitation Funding and Investment

The key sources of sanitation funding and investment will mainly consist of public sector, private sector, CSOs, development partners, communities and households.

5.9.2.1 Public Sector Financing

To improve public sector financing of sanitation and hygiene infrastructure and services, the national and county governments shall progressively increase their budgetary allocations to sanitation services. Kenya has committed to establishing specific public sector budget allocations for sanitation and hygiene programmes with a target allocation of a minimum of 0.5 percent of GDP.³⁸ National and county governments shall therefore allocate and appropriate with timely release of a separate vote for sanitation of an amount, equivalent to not less than 0.5 percent of their respective GDP or an equivalent of not less than 15 percent of their respective annual

³⁸ eThekwini Declaration 2008

appropriation for water supply to implement sanitation programmes. The National Treasury in consultation with the county governments, Commission on Revenue Allocation (CRA) and the Controller of Budget will lay down guidelines and conditions on how the public sector allocations shall be utilised. Broadly, public sector financing will consist of four key streams as follows:

5.9.2.1.1 National Government budgetary allocation

The national government will play a major role in the mobilization of financial resources from various traditional sources, including exchequer allocations and development partner assistance, to support the expansion and growth of the ESH sector. These resources will be used to cover core national government functions and activities including policy development, provision of technical assistance to counties, national coordination, development, production, dissemination of promotional materials, sanitation marketing and advocacy campaigns, training and capacity building, payment of staff, monitoring and evaluation and limited subsidies. The resources will also cover activities such as research and development, preparation of standards and guidelines, regulatory functions and major capital development projects such as waste management infrastructure, sewerage, storm water and on-site sanitation systems in public places and institutions.

5.9.2.1.2 County Government budgetary allocation

The 4th Schedule Part II of the Constitution assigns most of the sanitation service functions to county governments including:

- Refuse removal, refuse dumps and solid waste disposal.
- Licensing and control of undertakings that sell food to the public.
- Cemeteries, funeral parlours and crematoria.
- Storm water management system in built up area.
- Water and sanitation services.
- County abattoirs.
- Control of air pollution, noise pollution and other public nuisances.
- Burial of animals.

For these functions, the county governments are required to raise and allocate sufficient financial resources for their implementation and progressive realization. County governments shall therefore make sufficient annual budgetary allocations for the promotion and support of ESH activities in their areas of jurisdiction. County governments shall also mobilize additional funds from development partners and private sector to promote implementation of hygiene and sanitation services, programmes and investment plans in their respective counties.

5.9.2.1.3 City and Municipality budgetary allocation

Article 184(1) of the Constitution provides the legislative framework for the semi-autonomous governance and management of cities and municipalities. The Public Finance Management Act 2011 therefore confers both city and municipality management boards with power to develop their budget proposals consistent with the County Fiscal Plan to be approved by the County Assembly as part of the annual County Appropriation and to exercise delegated power to raise revenues to implement their plans and deliver services. The city or municipality annual budget estimates includes the current services budget, representing the cost of maintaining the urban area or city services at current levels and new services requests, covering one-time expenditures for the construction and maintenance of facilities in the urban area or cities.

The city and municipal authorities shall therefore make sufficient annual budgetary allocations and mobilize funds for the implementation of the ESH plans and activities in their areas of jurisdiction. Amongst options to be considered are fees, rates, or other charges levied by the authorities, direct levies on producers of solid wastes, especially non-biodegradable pollutants such as plastics and the use of a reasonable proportion of general revenue to subsidise the cost of environmental sanitation services. The income from any additional user charges will be earmarked specifically for supporting ESH activities. Other sources may include national and county government conditional capital grants to the City and Municipality Boards for infrastructure development. To ensure sustainable financing of urban sanitation services, city and municipality authorities shall:

- Develop and implement an Urban Strategic Environmental Sanitation Investment and Financing Plan (USESIFP);
- Identify and implement options for generating sustainable revenue such as levies on producers and importers of pollutants especially plastics to cover the costs of services and support ESH activities;
- Apply direct cost recovery from all users as far as possible covering all operating and capital costs, for services such as liquid and solid waste collection, public toilets and issuance of permits.
- Set tariffs with full participation of private sector service providers and users.
- Establish separate budget lines for ESH services and manage revenues for such services separately and exclusively for expenditure directly related to these services.
- Establish separate ESH accounts.
- Provide subsidies where full cost recovery is not possible.

5.9.2.1.4 National Sanitation Fund (NASF)

The development of the sanitation sector in Kenya has been constrained largely by institutional fragmentation and low priority given to sanitation side by the existing Water Services Trust Fund (WSTF). It is also common for the government and development partners to give priority to

raising and allocating funds for water supplies rather than for sanitation and hygiene functions. More importantly, despite, the Constitution requiring the state to establish sustainable financing approaches and public measures to ensure the progressive fulfilment of the guaranteed right to sanitation including the right to a clean and healthy environment, the existing funding mechanisms are neither designed and structured to effectively respond the new constitutional and legal demands of the sector. Both national and county governments have also not respectively established a clear funding strategy for:

- a) Executing the expanded scope of the Schedule Four sanitation functions in accordance with Article 187 of Constitution on the principle of *'funds must follow and match functions'*;
- b) Fulfilling Kenya's international commitments; and
- c) Meeting the demands of Article 20(5)(a)(b) on equitable allocation of resources for the fulfilment of rights guaranteed by Article 43 of the Constitution and provision of services to the vulnerable and marginalised sections of the society.

It is against this background that this policy aims to fully establish the National Sanitation Fund (NASF) by 2018. It will be intergovernmental by design and will have a governance framework, leveraging best-in-class fund administration and governance frameworks. The Fund is expected to offload from the Water Services Trust Fund the sanitation portfolio and to be wholly dedicated to sanitation financing. The Fund will implement innovative financing mechanisms to draw new resources that will be ring-fenced for high priority areas and interventions and underfunded areas within the sanitation service delivery chain as identified within both national and county sanitation sector strategic investment and development plans/frameworks. It shall aim to contribute to and catalyze both public and private sector investment in sanitation thereby facilitating Kenya's drive towards universal access to improved sanitation by 2030.

Broadly, the Fund aims to provide financial support to both state and non-state sector players to ensure universal access to improved sanitation by all Kenyans. The Fund will be dedicated to supporting the expansion of sanitation infrastructure and services in disadvantaged and marginalized rural and urban areas without adequate services. The Fund will also support identification, development, testing, and implementation of innovative sanitation solutions including new models and technologies for both rural and urban areas. The different types of projects that can be supported by the Fund include development and piloting of innovative improved sanitation technologies, community-based ESH programmes, safe collection programs, septage management and sludge treatment projects, life cycle cost for sanitation systems and solutions, capital and operating expenditures, technology evaluations, sanitation competition and awards for sanitation best practices such as most clean cities, and towns, sustainable ODF counties, villages and sanitation technology innovations. The Fund will further support capacity building activities and initiatives that aim at enabling communities to better plan, implement, manage, operate and sustain sanitation services and programmes by creating awareness and disseminating information regarding community management of sanitation services, and encouraging their active participation in the implementation and management of ESH plans, programmes and services.

The Fund shall adopt a leverage model to tap on diverse sources including National and County resources (ordinary revenues); private sector (corporate social responsibility and credit); international funding (bilateral, multilateral and private foundations); and leverage funding opportunities (matching funds, debt swaps, corporate social investments, infrastructure bonds and informal sector) etc. Indeed any feasible sustainable financing approach will need to include the government earmark for sanitation programmes and services. Government allocation (at National and County levels) is therefore proposed to be increased to 0.5 percent of GDP in the medium term while hedging potential reductions in current investment of 0.2 percent of the GDP. This will be supplemented by domestic private sector funds and international funding to meet the full net resource needs.

In the short term the exchequer with support of development partners will be requested to contribute the initial capital to establish the Fund. Subsequently both national and county governments shall contribute an agreed percentage of their annual budget to the Fund. In the long term, the Fund shall be sustained through re-investment including capitalization/endowment.

5.9.2.2 Public Benefit or Not-For-Profit Organizations Financing

Both national and county governments shall actively leverage on funds from public benefit or not for profit organizations including NGOs, FBOs and CBOs to carry out ESH activities for which they are well-suited. The both levels of governments shall therefore establish active co-operation with these agencies for mutual benefit based on a clearly defined framework of partnership and accountability. The Kenya Environmental Sanitation and Hygiene Strategic Framework and the County Environmental Sanitation and Hygiene Strategic and Investment Plans shall hence provide guidance for interventions and results for which public benefit or not for profit organizations will be responsible and accountable for in order to increase resources and accelerate results. Effective and well-functioning stakeholder co-ordination, resource monitoring and accountability mechanisms within the public finance management framework shall also be put in place and fully operationalised at national and county levels.

5.9.2.3 Development Partner Funding

National and county governments shall actively engage with various development partners including bilateral, multilateral and private foundations to raise resources to supplement government funding for sanitation. The support will be coordinated, aligned, and integrated with the Kenya government's funding and support policies and managed in terms of national policies and county strategies for the sector as a whole. The government at national and county levels shall therefore establish development partners for sanitation, clean and healthy environment forum to ensure effective coordination and alignment to national and county ESH priorities.

5.9.2.4 Private Sector Financing and Investment

To meet the objectives of this policy, considerable private sector investment will be required to expand and sustain ESH service infrastructure. This investment will aim to meet both basic needs such as wastewater disposal and economic demands, such as refuse collection and dealing with commercial and industrial wastes. It will therefore be critical to provide an enabling environment to attract private sector financing in the form of loans, bonds, or equity, particularly for investments necessary to meet the economic demand side of the ESH services.

Private sector partners including manufacturers, financial institutions, SMEs, developers, and landlords will be encouraged to invest in the development of affordable and appropriate technology options, facilities and infrastructure, and to actively participate in providing sanitation and hygiene services. The private sector shall also be encouraged to put up facilities in public institutions and enter into contracts with these institutions on investment recovery arrangements. Private sector partners will further be encouraged to invest in garbage collection trucks, exhauster equipment and waste treatment facilities as well as being invited to bid for service contracts.

To support household-driven improvement of sanitation services, the Government will facilitate and license private sanitation service outlets throughout the country. Micro-finance institutions will be encouraged to provide suitable finance. Special attention will be given to ways of ensuring that landlords and developers of properties invest in and construct suitable sanitation services for tenants and home-buyers.

Private sector financing and investment shall be encouraged through public-private partnership arrangements and by ensuring fair competition between private sector service providers and between the public and private sectors. National and county governments shall ensure "fair play" practices in the promotion of investments by all private sector actors including private-private and private-public ventures. Sanctions against polluters shall follow the "polluter pays" principle. Such payments shall correspond to the costs of restoring any damage done to the environment. The mechanisms adopted shall ensure that the cost of pollution increases progressively with the amount of pollution emitted, and that the cost of mitigating measures is lower than the cost of payment for the amount of pollution that is mitigated. In particular, determining service levels and their costs shall be important for cost and resource allocation in line with "polluter–pays" principle.

5.9.2.5 Household Contributions

Households especially in rural and landlord in peri-urban and slum settlements as well as small urban and market centres shall be encouraged to invest in improving their own sanitation and hygiene. The Households and landlords in peri-urban, slum shall bear the cost of providing, improving and maintaining environmental sanitation and hygiene including the costs of operation and maintenance of the technology chosen. The capital and maintenance costs will be clearly communicated to target communities to assist them in making informed choices within a demand-responsive approach. To support household investment, such options as microfinance

institutions, merry-go-round savings groups, investment clubs and other credit schemes shall be explored to make resources available for sanitation and hygiene.

To address the challenges of the individual and household vulnerability due to extreme poverty, disability or age, the affected households and individual may be assisted by carefully targeted public subsidies. Direct targeted subsidies to households for sanitation and hygiene improvements from the Government shall however only occur in the context of a clear national policy. State subsidies shall be directed at subsidising demand rather than supply, thus ensuring adequate targeting of the poor in both urban and rural settings. In long-term interventions such as those envisaged by this policy, the use of subsidies shall be kept to a minimum to avoid unsustainable demands on the tax base. For this reason, government subsidies shall be specific, transparent and temporary. To address the issue of government subsidies, national and county governments shall jointly establish an Intergovernmental and Stakeholders Committee to develop a comprehensive, consistent and sustainable policy on subsidies, tax waivers, and incentives to support the aims and objectives of this policy.

5.10 Policy Strategy #7: Establishing an Effective Research and **Development Framework for Sanitation**

Policy 7.
Objective 7.

To establish an effective research and development framework for sanitation to improve appropriate technology choices and promote evidence-informed sector decisionmaking.

Despite the increasing population and rapid urbanization with increasing waste volumes and changing waste streams, research and development in the sanitation sector has not kept pace with the changing population and economic needs of the country. The KESHP therefore recognises that as the Kenyan economy grows towards middle-income status by 2030, there is need for increased investment in research and development. This will be necessary not just to identify and adapt appropriate technological choices, but also to establish effective and sustainable sanitation systems in the country to meet the needs of all segments of society.

This policy thus aims to establish an effective research and development framework for sanitation to improve appropriate technology choices and promote evidence-informed sector decision making to meet the needs of the growing economy especially the needs of vulnerable and poor people. To lead the national ESH research and development agenda, the government shall establish a National ESH Research and Development Institute (NESHRDI) to respond to the changing sanitation needs of the society especially towards universal access to improved sanitation by 2030. NESHRDI shall especially support research and development interventions in appropriate technologies, improved sanitation systems, waste management, behavioural studies and dissemination of results of research and studies to various audiences including policymakers, services providers, consumers and researchers. In addition, the national and county governments shall:

- Develop and implement a National ESH Research Policy and Strategy to guide research and development activities in sanitation at various levels by different stakeholders.
- Encourage research by relevant agencies to address a wide range of sanitation issues and propose solution for addressing them.
- Encourage key stakeholders to conduct operational researches to establish effective and sustainable sanitation systems in the country;
- Develop a framework for tracking the volumes and types of waste streams generated from all segments of the economy.
- Support the development of a platform for transparent and credible assessment and reporting of sector performance.
- Examine and assess the capabilities of existing research and service institutions and provide appropriate support for research on environmental sanitation;
- Forge appropriate partnerships with universities to strengthen and support the schools of sanitation and hygiene for the training and retraining of ESH personnel.
- Carry out assessments to determine effective demand of communities (urban, small towns and rural) for environmental infrastructure.
- Carry out risks modelling before the introduction of a sanitary system.
- Support studies on alternative technology options for improving services to low-income urban areas, small towns and rural areas.
- Support local private sector entrepreneurs and artisanal entities to produce machines, equipment, infrastructure and tools appropriate for local use.
- Support the strengthening of local human resource capacity for research in environmental sanitations.
- Support research and studies in volumes and types of waste from predominant sectors and segments of the economy (especially sources of non-biodegradable-organic-fractions, special and hazardous wastes).
- Support research in handling and alternative uses of existing and changing composition of waste streams. Recycling and other waste minimisation methods shall be given first consideration in adopting any waste management approach.
- Ensure that relevant agencies, at all levels, provide timely and reliable data and information for tracking sector progress for national and county development planning.
- Support research in identifying fractions of waste streams with appropriate thermal values for waste-to-energy systems.
- Ensure effective dissemination of results of operational research and studies on waste stream composition and volumes from research institutions.
- Encourage private sector investment and public-private partnerships in research and development on environmental sanitation and hygiene.

5.11 Policy Strategy #8: Establishing and Strengthening Monitoring and Evaluation (M&E) Systems for the Sanitation Sector

Policy 8:

To establish a functionally effective monitoring and evaluation framework for the sanitation sector to ensure maximum accountability in policy implementation at all levels.

Establishing a functionally effective and efficient system for appraising and assessing progress in policy implementation and the effectiveness of policy actions in response to the changing sanitation needs and demand for improved services is essential. The sanitation sector monitoring and evaluation system has however, not been fully and formally established, contributing to weak policy implementation. The other M&E challenges in the sector include lack of a policy-level M&E plan with relevant indicators and well-defined responsibilities, a weak participatory M&E system and lack of effective mechanisms for capturing and managing data to support a Results-Based Management System that would in turn ensure accountability and transparency in policy implementation.

This policy therefore aims to establish a functionally effective monitoring and evaluation framework for the sanitation sector to ensure maximum accountability in policy implementation. To meet this objective, the national and county governments shall:

- Develop a framework for ESH monitoring and evaluation at all levels within the sector.
- Assess capacity for implementing an M&E system at all levels including how the
 existing M&E platforms within the health sector and other allied sectors integrate
 environmental sanitation.
- Develop appropriate indicators for each of the policy focus areas.
- Monitor and evaluate the performance of sanitation facilities and services and institute remedial measures where required.
- Establish/strengthen structures for effective M&E including mechanisms for county, urban areas and community-level monitoring and institute procedures for carrying out participatory M&E at all levels.
- Develop a responsive reporting and feedback mechanism for a Results-Based Management and M&E System for the sanitation sector;
- Define an appropriate strategy for communicating information from the M&E System in collaboration with other allied institutions;
- Ensure that relevant agencies, at all levels, provide timely and reliable data and information for tracking sector progress and contributing to periodic sector updates;
- Support counties, city, municipal and town authorities in collaboration with appropriate agencies to implement and manage appropriately designed MIS and M&E systems for tracking/monitoring of special categories of wastes such as electronic, medical and hazardous wastes;

- Encourage all stakeholders to regularly monitor the environmental impact of their adopted sanitation system such as. VIP latrines or sanitary landfill systems for disposal of solid wastes;
- Make budgetary allocations for the monitoring and evaluation of sanitation programmes within their areas of jurisdiction.

(>) INSTITUTIONAL FRAMEWORK

6.1 Introduction

There are many institutions and stakeholders involved in the sanitation sector including citizens, communities, private sector enterprises, NGOs, development partners, government ministries, departments and agencies at various levels. All these actors have an essential part to play in maintaining a high standard of environmental sanitation, so that individual, household, public, institutional and commercial activities have no prejudicial effect on the health or the living and working environment of others. The KESH policy therefore aims to ensure that ESH roles and responsibilities among these institutions and stakeholders at different levels are clearly defined. The policy also aims to enable the non-state actors including the private sector, non-governmental organizations and other civil society groups to play an effective role in promoting and implementing sanitation and hygiene activities at different levels of the service chain.

The national and county governments will therefore make dedicated efforts to engage all stakeholders in addressing the ESH needs in the country. The participation of various actors and sectors in the delivery of sanitation and hygiene services in line with this policy will be guided by an enabling institutional framework that takes into account both levels of services and the division of functions, powers and responsibilities between the national and county governments, between public agencies, between public and private/civil society agencies and between these players and households. The proposed organisational arrangements for sanitation aim to maximize stakeholder participation while minimising bureaucratic bottlenecks to service delivery at different levels. It also aims to minimise potential conflicts between and among the stakeholders and sectors at different levels in the implementation of the policy.

6.2 Distribution of ESH Functions within the Devolved and Decentralised Units

The Constitution and various legislative instruments such as the County Government Act, 2012, the National Government Coordination Act, 2013, the Cities and Urban Areas Act 2011, Water Act and EMCA have distributed and assigned sanitation and related functions to the national and county governments and to the decentralised units at different levels of the governance and service delivery system. The functional and organisational assignment of sanitation functions and responsibilities extends from the individual to the national level.

6.2.1 National Level

The Fourth Schedule Part I of the Constitution assigns the national government a number of sanitation-related functions and powers. These include the protection of the environment, sanitation policy, statistics and data on population, consumer protection, public works, public

investment and capacity building and technical assistance to counties. The key residual functions of the national government include sanitation planning and financing, resource mobilisation, public and private partnerships, intergovernmental relations, setting norms and standards, procurement of sanitation products and technologies, monitoring and evaluation, sanitation information systems, human resource management and development, regulation and standardisation of sanitation products and technologies, international reporting, research and training (tertiary and middle level).

Different national government institutions are therefore expected to take responsibility for various aspects of these functions. Under these arrangements, some existing responsibilities will be transferred from one institution to another. In most cases, human resources capacity will have to be developed within the institutions to enable them to meet their responsibilities effectively. In exercise of the assigned functions and powers, the Constitution requires national government agencies to decentralise their functions and services, from the capital Nairobi and to ensure reasonable access to their services in all parts of the republic, so far as they are appropriate to do so having regard to the nature of the service.

The Ministry of Health in cooperation with other relevant ministries, government agencies and departments shall in particular take the lead for:

- Placing appropriate policy instruments, legislation and institutional arrangements to guide, direct, regulate and manage the sanitation sector.
- Overseeing and coordinating the implementation of national sanitation and hygiene policy, laws, regulations, guidelines and standards.
- Mobilizing resources for the implementation of the policy and national ESH strategy.
- Monitoring and making follow up of the status and quality of sanitation services in the country.
- Promoting health and hygiene education as part of the curricular at nursery, primary and secondary school levels, tertiary institutions particularly teacher training institutions and informal institutions.

6.2.2 County Level

The Fourth Schedule Part II of the Constitution assigns the county governments a number of sanitation-related functions and powers. These include refuse removal, refuse dumps and solid waste disposal, licensing and control of undertakings that sell food to the public, cemeteries, funeral parlours and crematoria, storm water management system in built up area and water and sanitation services, county abattoirs, control of air pollution, noise pollution and other public nuisances and burial of animals. The concurrent functions for which the county governments are responsible include sanitation planning and financing, resource mobilisation, public and private partnerships, intergovernmental relations, procurement of sanitation products and technologies, monitoring and evaluation, sanitation, information systems and human resource management and development.

The Constitution requires county governments to decentralise their functions and the provision of their services to the extent that they are efficient and practicable to do so. Section 48 of the County Government Act, 2012 provides that the functions and provision of services of each county government shall be decentralised to:

- a) The urban areas and cities within the county established in accordance with the Urban Areas and Cities Act (No. 13 of 2011).
- b) The sub-counties equivalent to the constituencies within the county established under Article 89 of the Constitution.
- c) The wards within the county established under Article 89 of the Constitution and section 26.
- d) Such number of village units in each county as may be determined by the county assembly of the respective county.
- e) Such other or further units as a county government may determine.

County governments through their relevant institutions are expected to take responsibility for various aspects of the county-level sanitation functions including planning for environmental sanitation services and securing financial resources for the development of environmental sanitation systems in both rural and urban areas. The county governments shall in particular:

- Be responsible for issuing necessary legislations and by-laws to ensure effective sanitation regulations and enforcements.
- Ensure the provision of safe, adequate and high standards of environmental sanitation services to all population of the counties without discrimination.
- Be responsible for supervision and monitoring of all environmental sanitation projects at sub-county and community levels and facilitate coordination among sub-county and community stakeholders in all ESH-related issues.
- Establish by appropriate legislation, a county government agency³⁹ with the responsibility of actualising the policy objective of achieving 100 percent ODF and access to improved sanitation access by 2030 at the county level.
- Develop sanitation programmes for county capitals including cities and towns in the counties in consultation with all stakeholders.
- Ensure separate appropriation and timely release of funds for sanitation activities annually.
- Ensure that all funds from internal and external sources for sanitation promotion are properly utilised.
- Engage in monitoring and evaluation of sanitation activities at the county level and in urban areas.

³⁹ Section 6(5) (a) of the County Government Act 2012 allows county governments to establish a company, firm or other body for the delivery of a particular service or carrying on of a particular function to ensure efficiency in the delivery of service or carrying out of a function for which the county government is responsible.

- Engage in the training and capacity building of government personnel including environmental health officers, monitors, enforcers and administrators and NGOs to be involved in sanitation at the county level.
- Ensure the provision of appropriate and adequate sanitation facilities in all public institutions.
- Provide support to communities and households for sanitation development.
- Provide technical assistance to households for the upgrading of on-site sanitation facilities such as traditional pit latrines and evacuation of septic tanks.
- Set sanitation tariff where applicable considering affordability and willingness to pay for services by the households.
- Enter into partnerships with any public or private organization in accordance with the provisions of any law relating to public or private partnerships for sanitation work, service or function for which the county is responsible within its area of jurisdiction.
- Contract any person, company, firm or other body for the delivery of sanitation services
 or carrying on any particular sanitation function.

The county department for the time being responsible for ESH shall have the responsibility of involving the other relevant county departments, the County Commissioner at the county level, county legislative assembly members, county assembly committees on health, environment and public works and the national government service delivery coordination units (where they exist under section 14 of the National Government Coordination Act, 2013),⁴⁰ in the promotion of sanitation and hygiene aspects and ensuring the widest possible access to ESH services and facilities within the counties, including urban areas.

6.2.3 Urban (City and Town) Level

Urban areas including cities and towns within the counties are established in accordance with the Urban Areas and Cities Act, No. 13 of 2011. At this level, urban authorities shall be responsible for planning, implementation of national and county level sanitation and hygiene policy, regulations, guidelines, supervision, coordination and control of quality and standards of sanitation and hygiene services delivery, monitoring and evaluation of sanitation and hygiene services and programmes, in collaboration with the water and sanitation service utilities, communities, other relevant government departments and agencies and private sector stakeholders in their jurisdiction. The city and municipality authorities shall in particular:

- Co-ordinate and facilitate the planning, implementation and management of sanitation.
- Ensure separate appropriation and timely release of funds for sanitation activities annually.

⁴⁰ Section 14 (3) of the National Government Coordination Act, No. 1 of 2013 allows the National Government, where necessary, or where the County Government has not established decentralized units in accordance with section 48(1) (e) of the County Government Act, 2012, to establish its own service delivery co-ordination units for purposes of co-ordination of national government functions within the counties.

- Make appropriate by-laws to support the planning, implementation and monitoring of hygiene and sanitation programmes.
- Source funds from internal and external sources for the promotion of sanitation programmes and ensure that all the funds are properly utilised.
- Support the training and capacity building of ESH personnel (environmental or public health officers, sanitation monitors/inspectors, enforcers and administrators) and community artisans
- Enter into partnerships with any public or private organization in accordance with the provisions of any law relating to public or private partnerships for sanitation work, service or function for which the county is responsible within its area of jurisdiction.
- Contract any person, company, firm or other body for the delivery of sanitation services or carrying on any particular sanitation function.
- Support and facilitate water and sewerage companies and solid waste management entities
 established under any other law to effectively and efficiently deliver quality services to the
 residents.

An urban authority shall establish a Sanitation and Hygiene Management/Steering Committee to facilitate:

- Provision of sanitation and hygiene services.
- Development and implementation of the participatory annual sanitation and hygiene plans and budgets.
- Efficient use of sanitation services resources.
- Collection, analysis, interpretation and local use of sanitation statistics, including preparation of reports for delivery to county governments and feedback to various data collection levels.
- Research on the use of improved sanitation services.
- Human resources development for the sanitation sector personnel and promotion of expertise of various sanitation professionals.
- Promotion of environmental sanitation and hygiene.
- Encourage private sector participation in sanitation service and infrastructure investment, construction, and operation.
- Coordination of sanitation service providers within its jurisdiction in collaboration with NESCRA and other relevant agencies such as NEMA, WASREB and WRMA.

6.2.4 Sub-County Level

At the sub-county level, the sub-county environmental (public) health and sanitation coordinator/ officer shall be responsible for stakeholder coordination and provision of support supervision to ESH programmes at various levels within the sub-county. The coordinator/officer shall involve the sub-county health management team (SCHMT), the deputy county commissioners in respect of sub-counties and sub-county administrators in the promotion of sanitation and hygiene aspects and ensuring widest possible access to ESH services and facilities within the sub-counties. The main functions at sub-county levels shall include:

- Preparing proposals/plans for the ESH projects for the sub-county, including the required budget details in close coordination with SCHMT.
- Facilitating citizen participation in planning, implementation and monitoring of ESH schemes/projects/activities and delivery of services.
- Supporting and monitoring operation and maintenance of sanitation systems managed by communities.
- Strengthening collaboration and partnerships among sanitation stakeholders and partners within the sub-county and between stakeholders and partners with-sub county administration in support of the ESH level.
- Facilitating stakeholder participation in sanitation planning, budgeting and M&E activities at the sub-county level.
- Resource mobilisation for sanitation activities.

6.2.5 Ward Level

At the ward level, the ward environmental (public) health and sanitation assistant and the ward administrator shall be responsible for community mobilisation, facilitating and coordinating citizen participation in the development of ward level sanitation plans and delivery of services. This level shall also involve the ward representative and assistant county commissioner in respect of the ward in the promotion of sanitation and hygiene aspects and ensuring that communities or villages within the ward have sustainable access to ESH programmes, services and facilities.

6.2.6 Location and sub-location levels

Section 14(4) of the National Government Coordination Act, 2013 maintains the locations and sub-locations in existence immediately before the commencement of the Act as national government service delivery units. Chiefs in locations and assistant chiefs in sub-locations shall have the responsibility of promoting sanitation and hygiene aspects and enforcing ESH regulations in their areas in close collaboration, cooperation and coordination with the sub-county and ward administrators, public health and community health service personnel.

6.2.7 Community and Village Level

The Fourth Schedule Part II (14) requires county governments to ensure the participation of communities and locations in governance, including sanitation activities and programmes at the local level and to assist them to develop the administrative capacity for effective exercise of the sanitation functions and powers at the local level. This requirement entails the setting up of appropriate structures at the local (community and village) levels to facilitate the participation of citizens and communities in planning and delivery of sanitation and hygiene services and programmes. Sections 48(3), 52 and 53 of the County Government Act, 2012 establish the village units headed by village administrators and governed by the village councils. The functions of the village units include coordinating, managing and supervising the general administrative functions in the villages, ensuring and coordinating the community and citizens participation in governance, assisting the village units to develop the administrative capacity for the effective exercise of the county functions and powers at the local level and monitoring the implementation of policies, plans and programmes at the community and village level.

At the community and village level, community health units through community health extension workers (CHEWs), community health workers and community health committees in collaboration with village administrators, village councils, location chiefs and assistant chiefs and other stakeholders including NGOs and CBOs shall be responsible for the involvement of households in sanitation and hygiene concerns. Every community and village shall:

- Establish community environmental sanitation norms in line with national and county sanitation policy.
- Initiate ESH interventions and actively participate in planning, implementation, M&E, operation and management of the ESH projects.
- Undertake community sanitation and hygiene education to create awareness of environmental sanitation issues.
- Maintain a clean, safe and pleasant physical environment in their settlement.
- Organize participatory neighbourhood cleansing in urban areas once every two months on dates determined by urban authorities in consultation with village councils chiefs and assistant chiefs.
- Mobilise all citizens to participate in observing the World Toilet Day, the Global Hand-Washing Day, and the National Environmental Sanitation Day once every year on a date to be fixed by the national government.
- Take the necessary steps to develop appropriate environmental sanitation infrastructure such as domestic and public toilets and waste disposal sites.
- Prevent soil, water and air pollution.

6.2.8 Household Level

The household forms the first level of ESH intervention in the community. For this reason, households have important responsibilities in addressing the ESH needs of their members at all stages in the life cycle. Individual household heads will hence be responsible for promoting good sanitation and hygiene practices, providing and maintaining appropriate sanitation facilities as well as using them appropriately. All households will also be responsible for improving their own ESH services on their properties to the required standards.

6.3 Roles and Responsibilities of the Sanitation Sector Stakeholders/ Actors

The successful implementation of this policy requires that all stakeholders in the sector carry out their individual roles and responsibilities with clarity and coordination as they endeavor to fulfil their mandates and commitments to achieving the desired KESH policy objectives. This policy therefore aims to delineate the mandates and responsibilities of the key institutions and stakeholders involved in ESH to achieve its objectives.

Broadly, the institutions and stakeholders concerned with implementing environmental sanitation policy are divided into three categories:

- a) Principal public sector agencies with direct responsibility for aspects of environmental sanitation:
- b) Allied public sector agencies which play a supporting role.
- c) Allied non-state sector agencies including private sector, NGO and community-level stakeholders who contribute to the implementation of the policy.

Under these arrangements, some existing responsibilities will be transferred from one institution to another. It will be the responsibility of ESH stakeholders to make suitable arrangements for sector promotion within their areas of jurisdiction and to build essential human resources capacity within their institutions to enable them to meet their responsibilities effectively.

6.3.1 Roles and responsibilities of the principal sanitation public sector institutions

The principal public sector institutions with direct responsibilities for EHS include the Ministry of Health, County Departments of Health counties, relevant national and county government ministries, departments and agencies (MDAs), the National Environmental Sanitation Coordination and Regulatory Authority (NESCRA), city, municipality and town authorities including the sanitation service utilities.

6.3.1.1 The Ministry of Health

The Ministry of Health shall be the lead sector agency for environmental sanitation and hygiene affairs in the country as stipulated by the Cabinet memo of 24 September 2004 and the Public Health Act Chapter 242 and Foods Drug and Chemical Substances Act Chapter 254, Laws of Kenya. The Ministry of Health through the Department responsible for Environmental Health and Sanitation will coordinate and monitor the various actors engaged in ESH activities. Coordination and monitoring will be enhanced through integrated and multi-sectoral approaches at all levels. The Ministry of Health's functions shall include:

- Formulation and review of national environmental sanitation policies and strategies.
- Contributing to regulation and norms and standard-setting for for ESH.
- Developing and issuing technical guidelines on environmental sanitation services and their management.
- Overseeing and coordinating the implementation of national sanitation and hygiene policy, legislation, regulations, guidelines and standards.
- Coordination with other government departments on policy, legislation and other sector issues.
- Formulation of national legislation including model county legislation and by-laws;
- Direction and supervision of the National Environmental Sanitation Coordinating and Regulatory Authority (NESCRA).
- Developing promotional and marketing materials, communication strategies and providing leadership in sanitation marketing campaigns.
- Supporting health education activities and maintaining capacity in relation to ESH information dissemination, education, and communication.
- Facilitating the mobilisation of funds for implementation of national sector plans and programmes.
- Monitoring and evaluation including monitoring sector performance and compliance with national norms and standards, laws, regulations and guidelines.
- Facilitating and coordinating sanitation sector research and development activities including policy analysis to inform sector planning and decision-making.
- Control, prevention and management of infectious diseases including epidemic outbreaks in collaboration with county governments and provision of port health services.
- Managing and providing health data and using environmental sanitation information to contribute to disease prevention and control.
- Provision of capacity building and technical assistance to counties and other sector stakeholders to improve performance and compliance and to achieve the sector goals, objectives and strategies.
- Supporting the training of ESH personnel (environmental or public health officers, sanitation monitors/inspectors, enforcers and administrators).

- Creating policies and regulations that encourage private sector participation in ESH service and infrastructure provision.
- Human resources development for the sanitation sector personnel and the promotion of expertise of various sanitation professionals at the national levels.
- Promoting intergovernmental relations in sanitation and public and private partnerships in accordance with the provisions of the Intergovernmental Relations Act and any law relating to public or private partnerships for sanitation work, service or function

The Department responsible for Environmental Health and Sanitation (DEHS) shall play the leading role in supporting ESH functions within the Ministry of Health. The functions of the DEHS shall include:

- Provision of guidance to the Ministry of Health on environmental sanitation sector planning, policy and legislation.
- Provision of technical assistance to counties and service providers.
- Coordinating and disseminating the results of research in the environmental sanitation field.
- Regulation of all service providers both public and private.

To perform these functions, DEHS will maintain an appropriate in-house capacity and shall draw on specific outside expertise as and when necessary. Its establishment will be reviewed to be consistent with the new policy framework.

6.3.1.2 The National Environmental Sanitation Coordination and Regulatory Authority

The Ministry of Health by legislation shall establish the National Environmental Sanitation Coordination and Regulatory Authority (NESCRA). NESCRA will have clear Terms of Reference (ToR), structure and mandate for supporting environmental sanitation sector in both urban and rural areas. The NESCRA shall oversee the implementation of ESH policies and strategies relating to provision of sanitation services, and shall develop and enforce rules, guidelines and standards that guide the sector, with the aim coordinating and regulating sanitation services to ensure universal access in line with the Constitution of Kenya and Kenya Vision 2030. Specifically, NESCRA shall be responsible for:

- Coordinating policy and ensuring effective communication and cooperation between the many different agencies involved in environmental sanitation, within the context of a coherent national ESH strategy.
- Coordinating, harmonizing, monitoring and evaluating sanitation sector performance.
- Expediting implementation of the national environmental sanitation policy.
- Overseeing the preparation of a national strategy and its related financing plan for investments in sanitation services in accordance with Vision 2030.

- Overseeing the performance of service delivery and the related investments throughout the country.
- Issuing licenses for the provision of environmental sanitation services.
- Licensing and control of undertakings that sell food to the public.
- Monitoring and regulating licensees and to enforce license conditions.
- Determining the standards for the provision of environmental sanitation services.
- Establishing procedures for handling complaints made by consumers against licensees.
- Monitoring compliance with established standards for the design, construction, operation and maintenance of sanitation and sewerage facilities.
- Advising licensees on procedures for dealing with complaints from consumers and monitoring the operation of procedures.
- Developing guidelines for the fixing of tariffs for the provision of sanitation services.
- Developing guidelines for and providing advice on the cost-effective and efficient management and operation of sanitation services.
- Develop model performance agreements for use between licensees and sanitation service providers.
- Monitoring the operation of agreements between counties and boards of cities and towns and to take appropriate action to improve their effectiveness.
- Developing guidelines on regulations for the provision of sanitation services to be adopted by licensees.
- Monitoring and re-assessing the national environmental sanitation and hygiene strategy.
- Determining fees, levies, premiums and other charges to be imposed for sanitation services.
- Gathering, maintaining and disseminating information on environmental sanitation and hygiene services and publishing forecasts and projections on demand for sanitation services in rural and urban areas;
- Liaise with other bodies for the better regulation and management of sanitation and hygiene services;
- Advising the Health Cabinet Secretary and county executive committees members
 responsible for environmental sanitation and hygiene services concerning any matter in
 connection with sanitation and hygiene services.
- Undertaking the prosecution, with the consent of the Director of Public Prosecutions, of any offences under sanitation law, or any other law or in connection with the performance of its functions.

6.3.1.3 Role of County, City and Town Authorities

Under the Fourth Schedule of the Constitution, the County Government Act 2012 and the Cities and Urban Areas Act, 2011, the responsibility of delivery of environmental sanitation and hygiene services has been devolved to the counties. Section 12 of the Urban Areas and Cities Act 2011 further decentralises the sanitation and waste management services functions to urban areas and cities.

6.3.1.4 Role of County Government in Rural Areas

The county government through the department responsible for environmental sanitation and hygiene shall be responsible for ESH development, promotion and management in rural areas. The department responsible for ESH shall coordinate with county water, health, education, roads and public works, gender and youth, agriculture and environment and other county departments and agencies to promote rural sanitation and pursuit of ODF status for the county. The county government in partnership with NGOs, the private sector, microfinance institutions, FBOs, CBOs, households and other local institutions shall mobilize local communities and households around community led total sanitation campaigns and the promotion of sanitation. County government shall also develop enabling policies or guidelines for such efforts and on such issues as subsidies.

6.3.1.5 Role of County Government in Unclassified Urban Areas

In urban areas not classified under the Urban Areas and Cities Act, 2011, ESH functions shall be undertaken by the county department responsible for environmental sanitation and hygiene. The department shall provide the following services for unclassified urban areas and adjoining villages:

- Food hygiene and other inspection work.
- Environmental sanitation education.
- Cleansing.
- Supervision and monitoring of the performance of contractors and franchisees.
- Co-ordination, support and supervision of ESH services within the urban areas and adjoining villages.
- Supervision of county ESH workers.
- Operation of facilities not franchised or contracted to the private sector.
- Community mobilization.
- Fee collection.
- Promoting clean-up and self-help programmes.
- Maintenance of specified public areas in a sanitary condition and charge fees for the use of such areas.

Encourage and enable private sector participation in sanitation service and infrastructure provision.

6.3.1.6 Role of Boards of cities and municipalities and town committees

County governments through the boards of cities and municipalities and town committees shall carry out five distinct functions with respect to environmental sanitation and hygiene. These include:

- a) Waste Management: Waste management (covering collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, health-care and other hazardous wastes; storm water drainage, cleansing of thoroughfares, markets and other public spaces) shall be carried out by the respective waste management departments or through established sanitation services utilities within the jurisdictions of the city and municipality boards and town committees. They may provide the services either directly or indirectly through private contractors or franchisees. The city boards and town committees shall in all cases maintain an in-house capacity to provide at least twenty (20) percent of the services directly.
- b) Public Health Management: All other environmental sanitation tasks within the city and town jurisdictions, comprising the public health management functions (covering control of pests and vectors of disease, food hygiene, environmental sanitation education, inspection and enforcement of sanitary regulations, disposal of the dead, control of rearing and straying of animals), shall be carried out by environmental health and management departments of the city boards and town committees, with private sector inputs where appropriate.
- c) Environmental Monitoring: Within the environmental health and management departments, an environmental protection and standards enforcement division/unit shall, in collaboration with NEMA, be responsible for monitoring and enforcing environmental standards and regulations set by NEMA and other national regulatory agencies, and for organised and continuous public education on safeguarding the environment. This responsibility function includes responsibility for monitoring the environmental impact of boards and committees' own waste management activities. Where the waste management departments of the city boards and town committees' contract, franchise or license private sector service providers, they shall be responsible for imposing sanctions on and correcting any infractions against environmental standards by such service providers according to the provisions of the relevant agreement or license. The provisions include enforcing regulations for households to protect the public against the "nuisance" of overflowing septic tanks or unacceptable latrine construction. The counties, city boards and town committees may maintain specified public areas in a sanitary condition and charge fees for the use of such areas.

- d) Provision of Works related to Environmental Sanitation Facilities: At the County level, the county public works department (CPWD) shall be responsible for the development of sanitation infrastructure and facilities. They may do so either directly or indirectly through private contractors or franchisees. The city or municipality boards and town committees' environmental health and management departments will liaise with CPWDs in preparing capital development plans and costs for environmental sanitation infrastructure and facilities.
- e) Planning, Monitoring and Public Relations: As well as providing environmental sanitation services, the city boards and town committees shall also monitor their effectiveness, take action to resolve any problems identified, make short-term and strategic environmental sanitation plans to respond to community needs and wider environmental considerations, and ensure good public relations.

6.3.1.7 Roles of Urban water and sanitation utilities

In addition to the urban water and sanitation utilities currently established under the Water Act or any other law, the county governments through the Boards of cities and municipalities shall within their jurisdictions, establish such sanitation and waste management service utilities to manage sewerage network, treatment works and provision and management of on-site sanitation services including solid waste management. The utilities shall engage purely in providing sanitation and waste management services to the residents of their jurisdictions. The utilities shall have independent boards of directors consisting of professional individuals drawn from the public sector, private sector organisations, professional bodies, the NGO sector, resident associations and the boards of cities and towns. The utilities shall:

- Operate, maintain and repair sewerage systems.
- Extend them to new areas and customers.
- Collect and manage wastewater tariffs.
- Regulate the discharge of septage from septic tanks into the sewerage network or wastewater treatment plants.
- Support and finance construction or management (such as emptying) of on-site sanitation facilities such as latrines or septic tanks in partnership with private sector partners.
- Manage solid waste.
- Provide services and facilities for primary separation and removal of solid wastes at household, community, commercial, industrial and public levels.
- Promote the principle of 3R's of waste management (i.e. reduce, reuse, recycle)

To ensure maximum coverage, the Boards of cities and municipalities shall also encourage, enable, and permit private sector entities to build, operate and manage treatment works, solid waste management services, waste recycling and management of on-site sanitation services.

6.3.1.8 Role of Community Health Units

The main role of community health units shall be to facilitate and coordinate delivery of community-based ESH services and programmes at the community, village and household levels. Table 6 below provides the summary of the essential environmental sanitation and hygiene services that shall be provided through the community health units.

Table 6: Essential environmental sanitation and hygiene services

Essential ESH Services	Content of the ESH services
Food Safety and Hygiene	 Health education on five (5) essential rules for safer food Keep clean. Separate raw and cooked. Cook thoroughly. Keep food at safe temperature. Use safe water. Examination of food handlers. Safe storage of raw and cooked food. Preparation and food handling. Use of dish rack.
Water Safety	 Health education on household water treatment, safety and storage. Demonstration of treatment of water at point of use. Water safety plan demonstration. Distribution of water treatment chemicals at household level.
Personal Hygiene	 Health education on personal hygiene. Promotion of hand washing with soap. Health education on menstrual hygiene. Promotion of appropriate and affordable sanitary pads.
Excreta/Solid Waste Disposal	 Health education on sanitation ladder. Health education on waste management. CLTS training and mobilisation for CLTS triggering. Ending open defecation. Promotion of pit latrine usage. Promotion on usage of hygienic latrines and sanitation systems that safely remove and treat sludge. Promotion of use of improved latrines according to Ministry of Health definition. Siting of excreta disposal sites. Behaviour Change Communication/sanitation marketing Safe storage of waste at point of generation in line with infection prevention control practice. Safe disposal of wastes through incineration and burial.

Control of Vectors, Vermin and Rodents	 Health education and sensitisation on control and eradication of rodents and vectors. Frequent cleaning of food stores. Removal of habitat for insects. Proper storage and disposal of food refuse and rubbish. Treatment with chemical, physical or biological agents. Use of traps. Use of marked rodenticides. Regular inspection of places where infestation is most likely to occur such as food storage. Food handling and refuse disposal spaces.
Wastewater Disposal	 Health education and sensitisation on wastewater disposal into drains, soak-away pits and septic tanks. Raise awareness on the risks related to wastewater disposal. Selecting safe and environmentally friendly management options.
Sanitation in Public Places	 Provision of public toilets in public places such as markets and bus stops. Clearance of the immediate environment. Drainage of stagnant water. Garbage collection and disposal. Use of compost pit. Destruction of water collecting vessels or containers. Behaviour Change Communication. Sanitation marketing.
School WASH	 Drama on poor and good WASH. Sensitisation on jigger treatment and prevention. Deworming. Screening for stunted growth. Vitamin A supplementation. Ensure secure, clean and health environments for children including those with special needs. Provision of adequate safe water supply, hand-washing facilities, hygienic toilets. Promotion of safe waste management technologies and services in schools. Promotion of hand-washing with soap. Menstrual hygiene management, including the provision of sanitary towels.
Healthcare Waste Management	 Sensitisation and health education on safe drug use, storage and disposal. Infection prevention and control according to guidelines. Safe disposal of infectious and pathological waste through incineration and burial.

6.3.2 Role and Responsibilities of the Allied Public Sector Agencies

Other government ministries, departments and agencies at national and county levels shall have the general responsibility to support the Ministry of Health and county departments responsible for ESH in their role as the ESH sector leaders, and in fulfilling their policy, regulatory, implementation, support and information management roles. In addition to this general responsibility, certain government departments shall have the following specific responsibilities with respect to ESH activities:

- National Government Service Delivery Coordination Units under the National Government Coordination Act, through County Commissioners, Deputy County Commissioners, Assistant County Commissioners, chiefs and assistant chiefs shall assist in the mobilization of communities for sanitation and hygiene awareness campaigns and provide security and support enforcement of sanitation regulations.
- The National/County Treasury at both national and county levels shall monitor and regulate the finances of all public bodies. Their primary role shall be to guide sanitation-related fiscal activities, including administering all public investments in environmental sanitation as well as negotiating for grants and loans in accordance with the Public Finance Management Act. The treasuries shall also play a role in supporting the Ministry of Health, county departments responsible for ESH and other government departments in fulfilling their support and regulatory roles relating to fiscal and financial matters.
- Ministries/County Departments of water and irrigation at national and county levels will be responsible for supporting the provision of water and sewerage systems to compliment ESH activities through Water Service Boards (WSBs), Water Service Providers (WSPs) and the Water Services Trust Fund (WSTF) which is currently working as basket fund of the water and sanitation sector in rural and urban areas. This policy has however, proposed the offloading of the sanitation financing function of the WSTF to the National Sanitation Fund (NASF).
- The Ministry of Devolution and Planning will be responsible for supporting ESH activities by mainstreaming ESH into national development plans including Vision 2030 activities, as defined in this policy.
- The Ministry of Education, Science and Technology and Educational Institutions will be responsible for developing national education curricula and the provision of national training and learning materials, which will include appropriate sanitation and hygiene education. The Ministry of Education, in collaboration with the Ministry of Health at both national and county levels, shall be responsible for implementing school WASH programmes and ensuring that all schools are provided with adequate sanitation and hygiene facilities and services, while taking into account the special needs of especially girls and children with disabilities. Educational institutions such as universities and tertiary institutions shall play an important role in educating and building capacities of the sector professionals and personnel in addition to involvement in the sector researches,

studies and improvement of technologies.

- The Ministry/County Department of Lands, Housing and Urban Development is responsible for supporting physical planning of towns and rural areas, development of master plans, regulating the use of land, or any interest in or right over any land, in the interest of public safety, public morality or public health and directing development of services like roads, drainage and sewerage networks, disposal sites and water supply distribution lines. The National Land Commission (NLC) has the responsibility of monitoring and having oversight over land-use planning throughout the country.
- The Ministry/County Department of Environment and Natural Resources at national and county levels shall be responsible for the formulation and coordination of policies covering the protection of the environment, elimination of activities that are likely to endanger the environment, regulation and management of all wetlands and supporting environmental sanitation in the regulation and provision of technical standards and manuals. The National Environmental Management Authority (NEMA) is the regulatory agency for the protection of the environment. NEMA's functions are set out in the Environmental Management and Coordination Act and include establishing systems of environmental impact assessment, environmental audit and monitoring of the environment and pollution control.
- The Ministry/County Department of Roads and Public Works is responsible for road sector agencies in charge of constructing roads and associated structures such as roadside drains, bridges and culverts and ensuring that adequate provision is made for sanitation services in government and public buildings and projects
- Ministry/County Department of Agriculture at national and county levels has the responsibility for policies related to food and agriculture and the provision of sanitation facilities for plantation workers.
- Ministry/County Department of Tourism, Trade and East African Community Affairs
 is responsible for ensuring improved environmental sanitation and hygiene amenities in
 the sector, especially for outdoor tourism sites.
- The Ministry/County Department of Gender, Children and Social Services is responsible for policy issues on environmental sanitation that affect the well-being of women, children, older members of society and persons with disability. The National Gender and Equality Commission on its part, promotes social inclusion, gender equality and equity generally and facilitating gender mainstreaming in national development, including sanitation development, management and service delivery.
- **The Judiciary** is responsible for upholding and enforcing the rights to sanitation and clean and healthy environment as guaranteed by the Constitution under Articles 43 and 42. The courts have the primary responsibility of hearing and determining applications

for redress, including compensation as a result of a denial, violation or infringement of, or threat to the sanitation rights guaranteed in the Bill of Rights. The Judiciary may establish a division or special courts or tribunals to deal with public health and sanitation matters especially in urban areas.

- Constitutional Commissions, especially the National Commission on Human Rights and the Gender and Equality commissions have the responsibility to among others things promote respect, protection and observance of sanitation rights in public and private institutions. They also have the responsibility to monitor, investigate and report on the observance of the rights, receive and investigate complaints about alleged abuses of the sanitation and take steps to secure appropriate redress where the rights have been violated, act as the principal organs of the state in ensuring compliance with obligations under treaties and conventions relating to sanitation rights, investigate complaints of unfair or unresponsive official conduct, report on complaints investigated and take remedial action, and make recommendations to improve the functioning of state organs. The commissions further have the responsibility of investigating any conduct in state affairs, or any act or omission in public administration in any sphere of government that is alleged or suspected to be prejudicial or improper or to result in any impropriety or prejudice in respect of the rights related to sanitation, including the right to a clean and healthy environment.
- Parliament and County Legislative Assemblies are responsible for enacting legislation to give full effect to Articles 43 and 42 of the Constitution on the rights to sanitation and clean and health environment, and any such legislation. The parliamentary and county legislative assembly committees on health and environment provide legislative oversight over the environmental sanitation sector.

Other key government ministries, departments and agencies at national and county levels with roles to play in supporting sanitation and hygiene matters include Industrialization, Transport and communication, energy, the Kenya National Bureau of Statistics, Kenya Medical Research Institute (KEMRI), Kenya Industrial Research Institute (KIRDI), Kenya Wildlife Service (KWS), and the Kenya Bureau of Standards responsible for developing and setting quality standards for sanitation and hygiene machinery and equipment.

6.3.3 Roles and Responsibilities of Allied Non-State Sector Actors

Allied non-state sector actors which shall contribute to the implementation of the policy include private sector, NGO, households and community level stakeholders. Practically, the bulk of environmental sanitation and hygiene services shall be provided by non-state actors including private sector enterprises, NGOs, media, households and community based organizations under the superintendence of the principal public sector agencies.

6.3.3.1 Roles of the Private Sector

The private sector shall operate within policies, regulations, supervisory and licensing arrangements set up by the public sector to promote efficiency and competitiveness. In all cases the engagement of service providers shall be in accordance with the laws of Kenya. Where possible, environmental sanitation services shall be provided by the private sector on full cost recovery basis, under franchise, license, concession agreements or through contracting. The private sector will be encouraged to invest in ESH services and to undertake the following services:

- Planning, design and contract supervision.
- Provision of consulting services.
- Carrying out large and small-scale construction works and installation of equipment.
- Manufacture of environmental sanitation and hygiene materials and equipment;
- Investing in research and development in appropriate and affordable sanitation and hygiene technologies.
- Operation and maintenance of all sanitation facilities.
- Provision of finance for capital development and ESH services.
- Training and capacity building, particularly skills development.
- Monitoring and evaluation of sanitation programmes.
- Carrying out sanitation marketing and campaigns.
- Provision and management of septage tankers and any safe sludge handling and transport from on-site sanitation systems, on a fully commercial basis subject to licensing and the setting of maximum tariffs by the county governments.
- Provision and management of septage tankers, on a fully commercial basis subject to licensing and the setting of maximum tariffs by the county governments.
- Construction, rehabilitation and management of all public baths and toilets, subject to the supervision and setting of maximum tariffs by the county governments.
- Solid and liquid waste collection from individual institutional or domestic customers, subject to the supervision and setting of maximum tariffs by the county governments.
- Solid waste collection from communal containers under contract with the county governments, boards of cities and town committees or community groups or as part of a franchise covering high and low-income urban areas.
- Cleansing of designated areas and facilities (streets, drains, markets, bus and lorry parks, etc.) and maintenance of drains, under the agreements covering solid waste collection.
- Provision and management of sludge and waste treatment, recycling and disposal facilities, transfer stations and bulk waste transfer to disposal under contract, franchise, concession, Build, Operate and Transfer (BOT), Build, Own and Operate (BOO), Build, Own, Operate, and Transfer (BOOT) or other arrangements;

- Pest control for public areas, under contract with the county governments, or for individual customers, subject to licensing by the National Environmental Sanitation Coordination and Regulatory Authority (NESCRA);
- Operation and maintenance of sewerage collection and treatment systems by contract, franchise or concession, supervised by county governments, boards of cities and towns.
- Equipment leasing and maintenance/workshop services.
- Provision and management of abattoirs and meat shops subject to regulation by the county governments.
- Management of cemeteries and crematoria, regulated by the county governments in accordance with the legislation.
- Adherence to the established standards, regulations and requirements for environmental sanitation and hygiene services.

6.3.3.2 The Role of Public Benefit or Not-for-Profit organizations

The public benefit or not-for-profit agencies including non-governmental organizations (NGOs), faith-based organizations (FBOs), societies, corporate social responsibility foundations or agencies and other charitable entities will be encouraged to support government plans at national and county levels to progressively ensure that all Kenyans fully enjoy their rights to high standards of sanitation and a clean and healthy environment. These agencies shall complement government efforts in promoting environmental health, improved sanitation and personal hygiene practices at all levels in line with this policy. In particular, the non-governmental agencies shall be involved in, but not limited to the following:

- Design, development and implementation of community ESH programmes.
- Developing information, education and communication materials that are easily understood and accepted by the community.
- Health, hygiene education and sanitation promotion in the community.
- Awareness creation.
- Capacity building and training.
- Community mobilization.
- Policy advocacy and participation in forums.
- Sanitation marketing and communication.
- Promotion of affordable and appropriate ESH technologies that can easily be adopted and replicated by communities.
- Resource mobilization and fund raising for ESH programmes.
- Contributing expertise for the promotion of the ESH services.

- Bridging existing gaps between government and communities in ESH services.
- Operation and maintenance of sanitation facilities.
- Operations research and development activities.
- Monitoring, evaluation and social accountability.
- Working with lead government agencies at various levels to ensure generation, reporting and consolidation of relevant ESH data and information to promote evidence-informed decision-making in the sector.
- Adherence to the established standards and requirements for environmental sanitation and hygiene services.

6.3.3.3 Role of the Media

The role of the media through different channels such as radio, television, newspapers and the Internet shall be used to disseminate knowledge and awareness in relation to environmental sanitation and health-related issues as appropriate. Different forms of folk media will also be used in the promotion of environmental sanitation and hygiene services as appropriate. The National and county governments will encourage the media to propagate built-in sanitation-related messages in its entertainment programmes and to develop educational programmes on sanitation and health-related issues. It will also encourage the print media to publish in newspapers articles to make people aware of sanitation-related issues and motivate them to improve sanitation and hygiene practices in their homes, communities, neighbourhoods and settlements.

6.3.3.4 Role of Community-Based Organizations and Institutions

Community-based organisations including women and youth groups, cultural organisations such as elders' councils, village councils and other local level institutions shall:

- Assist in community mobilization for ESH activities including CLTS activities.
- Participate in and assist the counties, city and town authorities, non-governmental
 actors and communities in the planning and development of community environmental
 sanitation and hygiene facilities for the safe disposal of wastes, including the prevention
 of soil, water and air pollution;
- Facilitate mobilization of local resources for ESH projects.
- Engage in health and hygiene education, awareness creation and sanitation promotion in the community.
- Contribute labour for the promotion of the ESH services.
- Participate at every stage of the decision-making process of any sanitation programme in the community.
- Actively promote the participation of women, youth, persons with disability and other groups in local decision-making, governance and ESH promotion activities, including execution of sanitation programmes.

- Mobilise members to participate in environmental sanitation events and forums such as the World Toilet Day, Global Hand-Washing Day, the National Sanitation Day, Community Dialogue and Action Days and cleanup days.
- With the support of government and non-governmental sanitation promoters, establish group ESH norms that must be accepted by all members. Based on the agreed ESH norms, establish structures and systems for self-monitoring and self-appraisal to ensure that agreed targets, and goals of hygiene and sanitation are achieved.

6.3.4 The Role of Development Partners

The role of development partners including multilateral and bilateral agencies and other funding agencies including international NGOs and private foundations will be to provide direct development assistance to complement national and county government efforts in the environmental sanitation sector. The assistance may include on and off budget support, technical assistance, capacity building, institutional development and reforms, capital development financing, development and implementation of sector policies, research and development, monitoring and evaluation among others.

6.3.5 Role of Households

Households have the important role of addressing ESH needs of their members at all stages in the life cycle. Through the household head, households shall be responsible for:

- Promoting good household sanitation and hygiene practices.
- Providing and owning appropriate sanitation facilities for the disposal of human waste and ensuring their proper use and maintenance.
- Improving their own ESH facilities on their properties to the required standards.
- Adopting positive sanitation and hygiene behavior.
- Participating in community ESH promotion activities including dialogue and health action days and other community decision-making activities such as community consultations, planning, monitoring, evaluation and feedback activities.
- Mobilizing and investing household resources for ESH.
- Taking full responsibility for cleaning immediate environment and ensuring proper disposal of wastes.
- Recognizing the dangers of breeding disease vectors in their environment and ensuring prevention of such situations.
- Ensuring participation of all household members in ESH activities within the household and the community.
- Observing accepted ESH norms.

6.3.6 Role of Citizens/Individuals

Sanitation is as much a public responsibility as much as it is a personal responsibility. At the individual level, every person including individuals, establishments or institutions shall be responsible for:

- Claiming their constitutional rights to reasonable standards of sanitation (Article 43(1) (b)) and a clean and healthy environment (Article 42) from duty bearers. The Constitution gives every person the right to complain to a competent authority, alleging that these rights have been denied, violated or infringed, or is threatened; and to apply to a court seeking redress including compensation or to any other legal remedies available in respect to the same matter.
- Maintaining a clean, safe and pleasant physical environment in their homes or settlements.
- Cleansing within and in the immediate environs of their property or dwellings, including access ways and the drains and roads abutting the property or dwellings.
- Temporary storage of wastes within the property and disposal outside the property, as may be directed by the competent authority.
- Taking measures to prevent the breeding of pests and disease vectors within and in the immediate environs of the property they occupy.
- Ensuring that the wider environment is not polluted or otherwise adversely affected by their activities.
- Hygienically disposing of all wastes they generate in public areas by use of an authorised public toilet or solid waste container as appropriate.
- Participating in all communal environmental sanitation exercises organised by the community or its representatives.
- Providing and maintaining appropriate sanitation facilities and using them appropriately.

Where individuals, establishments or institutions fail to discharge their responsibilities, a competent authority shall take any necessary remedial action at the expense of those in default.

6.3.7 Inter-agency and Intergovernmental Coordination

6.3.7.1 National Inter-agency coordination Committee

The Ministry of Health, as sector leader, will be responsible for the coordination of all ESH activities in the country. To this end, the Environmental Sanitation and Hygiene Inter-Agency Coordinating Committee (ICC) will be established as an inter-agency oversight, coordination and advisory structure. It will be chaired by the Principal Secretary or his/her designate. Its

membership shall include representatives from the allied government ministries, agencies and departments, the Council of Governors, CSOs, the private sector and development partners. The Department responsible for Environmental Health and Sanitation (DEHS) in the Ministry of Health will be the secretariat to the ICC and will serve as a national resource in terms of expertise and knowledge. In the interests of bringing together sector actors in a spirit of cooperation and meaningful participation, the ICC through the DEHS will facilitate the establishment of ESH technical working groups (TWGs).

6.3.7.2 National ESH Hub

For technical coordination of the policy implementation, the Ministry of Health will establish a multi-disciplinary hub within DEHS consisting of experts with experience in the promotion and marketing, capacity-building, as well as institutional and technical ESH issues. The DEHS will carry out or commission those activities best performed at national level. Such activities shall include policy implementation coordination, developing strategies and programmes, advocacy work, development and standardization of information, education and communication material, gathering and disseminating best practices, M&E, research, technology standardization and international reporting.

6.3.7.3 Annual National ESH Intergovernmental and Stakeholders Forum

The Ministry of Health in collaboration with the Council of Governors and the County Assemblies Forum shall convene an annual National ESH Intergovernmental and Stakeholders Forum (NESHISF). The forum will bring together all sector players from the county and national levels to review, track progress in achieving policy targets, share information and best practices, network and build linkages, award best sector performers and set priorities for the sector for the following year.

6.3.7.4 County ESH ICC

At the county level, the county department responsible for ESH shall establish and convene county ESH ICC chaired by the chief officer or his/her designate. Its membership shall include representatives from the allied county government departments, agencies and departments, the county director of education, County Commissioner, CSOs, the private sector and Development partners. The County ESH ICC may establish Technical Working Committees. the county department responsible for ESH may also establish ESH stakeholder coordinating committees at the sub-county, ward and village levels.

6.3.7.5 Annual County ESH Stakeholders Forum (CESHSF)

The county department responsible for ESH in collaboration with the County Legislative Assembly committee on health and environment as well as the city or municipality board shall hold an annual County ESH Stakeholders Forum (CESHSF). The forum will bring together all sector players from within the county to review, track progress in achieving policy targets, share information and best practices, network and build linkages and set priorities for the sector for the following year. The County ESH Stakeholders Forum shall be held at least two months before the National ESH Intergovernmental and Stakeholders Forum. Each county will present their forum report to the National Forum.

DESCRIPTION FRAMEWORK

7.1 Introduction

The ultimate aim of the Kenyan Environmental Sanitation and Hygiene Policy (KESHP) is to improve quality of life and human dignity for Kenyans. To determine the success of policy implementation, the progress of the strategic interventions developed and implemented under this policy shall be carefully monitored and evaluated at community, county and national levels.

7.2 Policy Planning

The policy will be implemented through five-year rolling medium-term National and County Environmental Sanitation and Hygiene Strategic and Investment Plans, which shall be linked to the Kenya Vision 2030, the Kenya Health Policy Framework, the National Health Sector Plan, the County Integrated Development Plans (CIDPs) and the County Sector Plans (CSPs). Both National and County ESH strategic frameworks and plans shall be accompanied by costed investment plans and resource mobilization strategies. The national and county strategic frameworks and investment plans shall be executed through the annual ESH work plans and budgets developed within the national and county budget framework. The government at national and county levels will require that investments and operational choices are driven by what users want and what they are willing to pay for. The informed expression of local demand will serve as a key criterion for devising technical solutions and allocation of financial resources.

7.3 Policy Implementation Framework

To guide the systematic implementation of the policy, the Ministry of Health in collaboration with stakeholders and in consultation with county governments shall develop the Kenya Environmental Sanitation and Hygiene Strategic Framework (NESHF). The first NESHF 2015 – 2020 shall guide the counties in developing their respective first five year County Environmental Sanitation and Hygiene Strategic and Investment Plans (CESHSIPs). The CESHSIPs shall be aligned with the respective CIDPs and the relevant county sector plans (CSPs). The CESHSIPs shall:

- Identify the facilities needed to provide comprehensive services, tailoring the recommended technical options to each type of area to be served.
- Consider user preferences and willingness to pay.
- Break the overall plan into components that can be implemented independently but which together provide full service coverage, and set priorities.
- Describe the implementation and financing arrangements for each component, including private sector participation.

In urban areas, the boards of cities and municipalities and the town committees shall implement the policy through their respective Urban Environmental Sanitation and Hygiene Strategic and Action Plans (UESHSAPs). Environmental sanitation assessments and audits will be applied in strategic planning. Various ESH public, private and community service providers will be required to draw up their respective ESH programme plans. Such plans shall take into account the budget of potential users, their willingness to pay for particular technologies, operation and maintenance requirements and costs, and the financing and cost-recovery arrangements needed to sustain the services in full working order. For rural and peri-urban areas including urban informal settlements, the Community-Led Total Sanitation (CLTS) approach will be adopted by engaging local communities in the identification of environmental sanitation problems and transmission routes to wider public health effects.

Both CESHSIPs and UESHSAPs will be implemented within county and urban area sanitation services delivery structures and shall be cascaded to the sub county, ward, community/village and institutional levels. Since sanitation sector draws together many institutions and stakeholders at different levels of interest, this policy provides a framework for participation and involvement of various public and private sector actors at different levels of the service chain. The actors include individual citizens, households, communities, private sector enterprises, NGOs, development partners, County Government department, and agencies, National Government ministries, departments and agencies.

7.4 Policy Monitoring and Evaluation Framework

The Ministry of Health at the national level and the county department responsible for ESH at the county level, shall take lead in putting in place a sound monitoring and evaluation framework for KESHP. The M&E framework will be designed around the ESH sector vision, goals, objectives and targets set out in this policy. The main purpose of the framework will be to demonstrate the policy outcomes and impact and to maximize accountability among different stakeholders over the expected policy results and outcomes. The M&E framework will be elaborated through the Kenya Environmental Sanitation and Hygiene Strategic Frameworks and the County ESH sector strategic and investment plans. The Ministry of Health and county departments of health together with stakeholders will collaboratively develop common national, county and community level indicators to monitor performance and measure changes at various levels. The strategies and interventions envisaged under this policy will therefore be continually monitored and regularly evaluated.

7.5 Policy Review

This KESH Policy shall be reviewed after a period of five (5) years from the effective date. The review process shall involve input from all stakeholders at national and county levels. The Ministry of Health shall provide the guidelines and specify the procedures for reviewing the policy.

> REFERENCES

Amnesty International (2010), Kenya: Insecurity and Indignity: Women's Experiences in the Slums of Nairobi, Kenya, Amnesty International, 7 July 2010.

Commission on Revenue Allocation (2013), Data on poverty Gap index ranking taken from Kenya County Fact Sheets.

Financing Urban Water Services in Kenya - Utility Shadow Credit Ratings, 2011.

GIZ/KFW (2014), Partnering to Unleash Kenya's Potential,.

Government of Kenya (2009), Kenya Demographic and Health Survey2008-09 http://www.unfpa.org/sowmy/resources/docs/library/R313_KNBS_2010_Kenya_DHS_2009_final_report.pdf

Government of Kenya (2012) Sessional Paper No. 6 of 2012 on the Kenya Health Policy 2012-2030

Government of Kenya (2012), Sessional paper No....of 2012 On Kenya Vision 2030

Government of Kenya (2014), Sanitation and Water for All High Level Meeting: Kenya-Statement of Commitments

H.W. Pearson, S.T. Avery, S.W. Mills, P. Njaggah and P. Odhiambo (2010), Performance of the phase II Dandora waste stabilisation ponds: The case for anaerobic ponds, *Water Science and Technology* Volume 33, Issue 7, 1996, Pages 91–98. Retrieved 16 March 2010

High Level Meeting (HLM) (2012), Statement of Commitments

High Level Meeting (HLM) (2012), Statement of Commitments

http://www.righttowater.info

Institute of Economic Affairs (2010), A Rapid Assessment of Kenya's Water, Sanitation and Sewerage Framework, June 2007 Retrieved 16 March 2010

Ipsos Synovate. "Formative Research Conducted for 'Selling Sanitation' initiative." Unpublished (2013), Nairobi: World Bank's Water and Sanitation Program and International Finance Corporation.

Kenyan national Bureau of Statistics (KNBS) website accessed June 2013 http://www.knbs.or.ke/ Laws of Kenya Public Health Act the National Council for Law Reporting, www.kenyalaw.org Laws of Kenya, County Government Act 2012, the National Council for Law Reporting, www. kenyalaw.org

Laws of Kenya, Public Finance Management Act 2012, the National Council for Law Reporting, www.kenyalaw.org

Laws of Kenya, The Constitution of Kenya, 2010, the National Council for Law Reporting, www. kenyalaw.org

Laws of Kenya, Urban Areas and Cities Act 2011, the National Council for Law Reporting, www. kenyalaw.org

Laws of Kenya, Water Act Chapter 372 pg 80, the National Council for Law Reporting, www. kenyalaw.org

Mehta M. and Knapp, A. (2004). The Challenge of Financing Sanitation for Meeting the Millennium Development Goals. WSP

Mehta, M. (2008). Assessing Microfinance for Water & Sanitation – Exploring Opportunities for Sustainable Scale up. Bill & Melissa Gates Foundation

Ministry of Health (2005). Reversing the Trends: The Second National Health Sector Strategic Plan: NHSSP II -2005-2010. Nairobi: Ministry of Health.

Ministry of Health (2006). Taking the KEPH to the Community – Strategy for the delivery of Level One Services. Nairobi.

Ministry of Health (2014), "Kenya Health Policy 2013 - 2030", Nairobi, Ministry of Health

Ministry of Health (2007), National Environmental Sanitation and Hygiene Policy 2007

Ministry of Health (2010), National Environmental Sanitation and Hygiene strategy 2010-2015

Ministry of Health (2010), ODF Rural Kenya by 2013 Campaign Road Map

Ministry of Health (2010), Review of the Kenya Health Policy Framework, 1994 – 2010

Ministry of Health (2012), Report of the Global Hand washing Day in Kenya, 2012

Ministry of Health (2014), Draft Report of the First National Sanitation Conference, 1-3 April 2014, KICC Nairobi.

Ministry of Water and Irrigation (2009), Ministerial Strategic Plan, 2009-2012.

Oyaya C.O. (2011), Devolved Governance Concept with Examples of Systems from Other Countries, Proceedings of the 5th International PICD Conference held at the Great Lakes Hotel – Kisumu, Kenya, 3rd – 7th October 2011, STIPA/UNICEF

Oyaya C.O. (2011), Planning in Devolved Governance: An Example of Kenya, Proceedings of the 5th International PICD Conference held at the Great Lakes Hotel – Kisumu, Kenya, 3rd – 7th October 2011, STIPA/UNICEF.

Oyaya Charles (2012), People's Participation and Public Engagement in Devolved Governance and Development: Non State Actors (NSAs) Practitioners' Programming Reference Guide, the Non-State Actors Support Programme (NSA-NET)/Ministry of Justice, National Cohesion and Constitutional Affairs (MoJNCCA)/European Union

R. Gakubia, U. Pokorski and P. Onyango (2010), Upscaling Access to Sustainable Sanitation – Kenya, January 2010, slide 7. Retrieved 16 March 2010

SIDA, GTZ and Government of Kenya (2009), Kenya Water and Sanitation Programme and the Water Sector Reform Programme: A Joint SIDA, GTZ and Government of Kenya Mid-Term Evaluation Mission Report, 2009.

SIDA/DANIDA (2010), Lessons Learned & Good Practices from Support to the Kenyan Water Sector.

Sthiannopkao S, Wong MH. (2012) Handling e-waste in developed and developing countries: Initiatives, practices, and consequences. Sci Total Environ.

Strategic Guidelines for Improving Water and Sanitation Services in Nairobi's informal Settlements, 2009.

UNEP (2005), Solid Waste Management Vol. I &II

UNICEF (2013), The State of the World's Children(SOWC): Children with Disabilities, UNICEF, New York, May 2013

UNICEF/GOK WASH Programme (2011), An Overview, WSF, 2011.

UNICEF/WHO (2012), Joint Monitoring Programme (JMP) 2012 - http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-report-2012-en.pdf

UNICEF/WHO (2013), Joint Monitoring Programme (JMP) Kenya country info, 2013

United Nations Environment Programme (UNEP) (2006), Achieving MDG 7 is an important precondition for achieving all the other MDGs" -Achim Steiner United Nations Under-Secretary General Executive Director of the United Nations Environment Programme (UNEP), 2006.

United Nations News Service (2010), "As e-waste mountains soar, UN urges smart technologies to protect health", *United Nations-DPI/NMD - UN News Service Section*.

WaterAid (2011), Off track, off target: Why investment in water, sanitation and hygiene is not reaching those who need it most, WaterAid, Nov. 2011 - http://www.wateraid.org/documents/plugin_documents/offtrack_offtarget.pdf

World Bank Group Water and Sanitation Programme (WSP), "Economic Impact of Poor Sanitation" in Kenya, updated using 2010 DHS data.

World Bank Group Water and Sanitation program (WSP) (2013), Final Draft Report of Enabling Environment Baseline Assessment for Sustainable Rural Sanitation and Hygiene at Scale: Kenya

World Bank WSP, UNICEF (2015), An AMCOW Country Status Overview: Water Supply and Sanitation in Kenya Turning Finance into Services for 2015 and Beyond,

World Health Organization (2009), Global Health Risks Global Health Risks, WHO Mortality and burden of disease attributable to selected major risks.

